Electronic Supplementary Material (ESI) for Natural Product Reports.

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Supplementary Information

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1 Introduction

In the main Review document, only the structures of a selection of highlighted compounds are shown. However, *all* structures are available for viewing, along with names, taxonomic origins, locations, biological activities and other information in this Supplementary Information (SI) document. Each page of the SI document contains at least one array of numbered structures. The numbers are those assigned in the Review document. For structures that have their absolute configurations fully described, the compound number in the diagrams is preceded with †. Below each structural array the relevant information for each reference and associated compounds is listed. The first line contains the **Main article reference** #, followed by **Taxonomy**, **Location** and **Article title**. Each section is separated by the // symbol. The following indented line(s) provide information about each compound referred to in the Review for that publication. This information is provided in the following order, again separated by // (* is inserted where there are no data): **Compound number**, **Status** (**N** for a new compound; **M** for new to marine; **R** for a revision (structure, stereochemistry, stereochemical assignment etc)), **Compound name**, **Biological activity** and **Other information**. To assist your viewing these headings are noted in the footer at the bottom of each page. To conserve space the **Title** and **Location** data may have been abbreviated, and are not as complete as in the source, MarinLit. Most **Main article reference** numbers are hyperlinked to the relevant DOI or URL. Where those are not available, the full reference is given in a brief Bibliography at the end of this SI document. **Compound numbers** are hyperlinked to a Chemspider entry where available.

1.1 Abbreviations

In the **Biological activity** section the following abbreviations have been used:

Abs. config.	Absolute configuration
AchE	acetylcholine esterase
activ.	Activity
anal.	analysis
AB	antibacterial
antifoul.	antifouling
AF	antifungal
AI	anti-inflammatory
AM	antimicrobial
AO	antioxidant
AV	antiviral
A. niger	*Aspergillus niger*
bact.	bacteria
B. subtilis	*Bacillus subtilis*
calc.	calculation
C. albicans	*Candida albicans*
compar.	Comparison
connect.	connectivity
cytotox.	cytotoxicity/cytotoxic
DFT	density functional theory
degrad.	degradation
deriv.	derivative
determ.	Determined
diffrac.	diffraction
DPPH	2,2-diphenyl-1-picrylhydrazyl
ECD	electronic circular dichroism
E. coli	*Escherichia coli*
estab.	established
expt.	experimental
GSK 3β	glycogen synthase kinase 3β
hum.	human
HTCL	Human Tumour Cell Line
IDO	indoleamine 2,3-dioxygenase
IA	inactive
inhib.	inhibitor/inhibition/inhibitory
insep.	Inseparable
isol.	isolated
K. pneumoniae	*Klebsiella pneumoniae*
MIC	minimum inhibitory concentration
M. tuberculosis	*Mycobacterium tuberculosis*
M. smegmatis	*Mycobacterium smegmatis*
mod.	moderate
microb.	microbial, microbe
mixt.	mixture
MRSA	Methicillin Resistant *Staphylococcus aureus*
NRPS	nonribosomal peptide synthase
NO	nitrous oxide
NT	not tested
PD	Parkinson's Disease
P. notatum	*Penicillium notatum*
P. falciparum	*Plasmodium falciparum*
PKS	polyketide synthase
prop.	proposed
PTP1B	Protein-Tyrosine Phosphatase 1B
P. aeruginosa	*Pseudomonas aeruginosa*
recept.	receptor
SAR	Structure Activity Relationship(s)
S. cerevisiae	*Saccharomyces cerevisiae*
spec. rot.	specific rotation
S. aureus	*Staphylococcus aureus*
stereochem.	stereochemistry
struct.	structure
synth.	synthesis/synthetic
TRP	Transient Receptor Potential
T. mentagrophytes	*Trichophyton mentagrophytes*
T. brucei	*Trypanosoma brucei*

2 Additional reviews

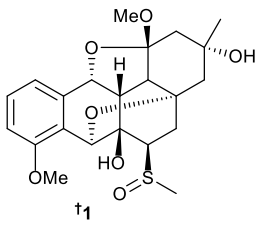
This listing is of reviews not included in the Review highlights section of the MNP review. Their placement here does not necessarily imply a lesser importance of the work described, but more likely that they may be of interest to only a smaller group of readers or have a more limited scope of coverage

s1	sea cucumbers, bioactives	Bioactive compounds of sea cucumbers and their therapeutic effects
s2	*Aplysia* spp., metabolites	Chemical diversity and biological properties of secondary metabolites from sea hares of *Aplysia* genus
s3	molluscs, peptide toxins, therapeutics	From mollusks to medicine: a venomics approach for the discovery and characterization of therapeutics from Terebridae peptide toxins
s4	jellyfish, bioactives, wet-lab methods	Jellyfish bioactive compounds: methods for wet-lab work
s5	holothurians, triterpene glycosides, chemotaxonomy	Taxonomic significance and ecological role of triterpene glycosides from holothurians
s6	mangroves, bioactives	Recent progress on the mangrove plants: chemistry and bioactivity
s7	mangroves, *Avicennia,* pharmacology	The genus *Avicennia*, a pioneer group of dominant mangrove plant species with potential medicinal values: a review
s8	seagrasses, chemosystematics, bioactivity	Secondary metabolites of seagrasses (Alismatales and Potamogetonales; Alismatidae): chemical diversity, bioactivity, and ecological function
s9	Actinobacteria, genome mining	Next generation sequencing of Actinobacteria for the discovery of novel natural products
s10	*Nocardiopsis,* bioactives	*Nocardiopsis* species: a potential source of bioactive compounds
s11	Cyanobacteria, metabolites	Tiny microbes with a big impact: the role of cyanobacteria and their metabolites in shaping our future
s12	Cyanobacteria, biosynthesis	Unique marine derived cyanobacterial biosynthetic genes for chemical diversity
s13	Cyanobacteria, Dinoflagellates, PST biosynthesis	Paralytic shellfish toxin biosynthesis in cyanobacteria and dinoflagellates: a molecular overview
s14	myxobacteria, bioactives	Marine-derived myxobacteria of the suborder Nannocystineae: an underexplored source of structurally intriguing and biologically active metabolites
s15	*Pseudoalteromonas,* antimicrobials	Spotlight on antimicrobial metabolites from the marine bacteria *Pseudoalteromonas*: chemodiversity and ecological significance
s16	fungi, bioactives	Potential pharmacological resources: natural bioactive compounds from marine-derived fungi
s17	fungi, bioactives	Natural products from marine fungi—still an underrepresented resource
s18	algal endophytic fungi, chemical diversity	Secondary metabolites from the marine algal-derived endophytic fungi: chemical diversity and biological activity
s19	N*eosartorya, Aspergillus,* Thai bioactives	Bioactive secondary metabolites from a Thai collection of soil and marine-derived fungi of the genera *Neosartorya* and *Aspergillus*
s20	*Penicillium,* metabolites, bioactivities	Marine natural products sourced from marine-derived *Penicillium* fungi
s21	*Penicillium, Talaromyces,* bioactives	Bioactive compounds produced by strains of *Penicillium* and *Talaromyces* of marine origin
s22	uncultured microbes, bioactives	Predominately uncultured microbes as sources of bioactive agents
s23	microorganisms, bioactives	Secondary metabolites from marine microorganisms and therapeutic efficacy: A mini review
s24	*Prorocentrum,* dinoflagellates, DSP toxin production	The mechanism of diarrhetic shellfish poisoning toxin production in *Prorocentrum* spp.: physiological and molecular perspectives
s25	plankton, chemical ecology	Chemical ecology of marine plankton
s26	Mycalid sponges, bioactives	Chemical and biological aspects of marine sponges from the family Mycalidae
s27	Haplosclerid sponges, chemotaxonomy	Does the chemical diversity of the order Haplosclerida (Phylum Porifera: Class Demospongia) fit with current taxonomic classification?

s28	Dictyoceratid sponges, bioactives	New marine natural products from sponges (Porifera) of the order Dictyoceratida (2001 to 2012); a promising source for drug discovery, exploration and future prospects
s29	Dictyoceratida, anticancer, tubulin	Dictyoceratidan poisons: defined mark on microtubule-tubulin dynamics
s30	sponges, bioactives	Marine sponges as a drug treasure
s31	*Neopetrosia,* bioactives, chemical diversity	Chemical and bioactive diversities of marine sponge *Neopetrosia*
s32	*Sargassum muticum,* pharmaceutical potential	High-value products from macroalgae: the potential uses of the invasive brown seaweed, *Sargassum muticum*
s33	macroalgae, bioactives	Looking beyond the terrestrial: the potential of seaweed derived bioactives to treat non-communicable diseases
s34	oxylipins, macroalgae	Biologically active oxylipins from enzymatic and nonenzymatic routes in macroalgae
s35	isonitriles	Marine isonitriles and their related compounds
s36	peptides, biosynthesis	Combinatorial biosynthesis of RiPPs: docking with marine life
s37	proteins and peptides, clinical studies	Preclinical and clinical studies on antioxidative, antihypertensive and cardioprotective effect of marine proteins and peptides—a review
s38	depsipeptides, pharmacotherapeutics	Marine depsipeptides as promising pharmacotherapeutic agents
s39	peptides, hypotensive, anti-obesity	A review of potential marine-derived hypotensive and anti-obesity peptides
s40	non-ribosomal peptides, pharmacology	The pharmacological potential of non-ribosomal peptides from marine sponge and tunicates
s41	nonribosomal peptides, polyketides	Discovery strategies of bioactive compounds synthesized by nonribosomal peptide synthetases and type-I polyketide synthases derived from marine microbiomes
s42	proline-rich cyclopolypeptides	Natural proline-rich cyclopolypeptides from marine organisms: chemistry, synthetic methodologies and biological status
s43	peptides, therapeutics	Therapeutic importance of peptides from marine source: a mini review
s44	alkynyl peptides	Alkynyl-containing peptides of marine origin: a review
s45	indole diketopiperazines, fungi	Structural diversity and biological activities of indole diketopiperazine alkaloids from fungi
s46	polytheonamide, biosynthesis, *Entotheonella*	Polytheonamide biosynthesis showcasing the metabolic potential of sponge-associated uncultivated '*Entotheonella*' bacteria
s47	conotoxins, therapeutics	Conotoxins: structure, therapeutic potential and pharmacological applications
s48	disulfide-poor conopeptides	In the picture: disulfide-poor conopeptides, a class of pharmacologically interesting compounds
s49	tocopherols	Tocopherols in seafood and aquaculture products
s50	oxazoles, oxazolines, isoxazolines, synthesis	Synthesis of oxazole, oxazoline and isoxazoline derived marine natural products: a review
s51	pyridoacridine alkaloids	Marine pyridoacridine alkaloids: biosynthesis and biological activities
s52	pyridoacridine alkaloids	New perspectives in the chemistry of marine pyridoacridine alkaloids
s53	cyanobactins, biosynthesis	Mechanisms of cyanobactin biosynthesis
s54	cyanotoxins, Cyanobacteria, biosynthesis	The genetics, biosynthesis and regulation of toxic specialized metabolites of cyanobacteria
s55	steroids, *Sarcophyton* spp.	A review of steroids from *Sarcophyton* species
s56	polyunsaturated fatty acids, genomes	Bacterial long-chain polyunsaturated fatty acids: their biosynthetic genes, functions, and practical use
s57	nitropyrroles, synthesis, biosynthesis	Nitropyrrole natural products: isolation, biosynthesis and total synthesis
s58	indole alkaloids, Cyanophyta	Indole alkaloids of the Stigonematales (Cyanophyta): chemical diversity, biosynthesis and biological activity
s59	aeroplysinin-1	Aeroplysinin-1, a sponge-derived multi-targeted bioactive marine drug
s60	bromopyrrole alkaloids, *Agelas* spp.	Bromopyrrole alkaloids from Okinawan marine sponges *Agelas* spp.
s61	cyclobutane alkaloid dimers	Emergence of diversity and stereochemical outcomes in the biosynthetic pathways of cyclobutane-centered marine alkaloid dimers
s62	jaspine B, bioactivity, synthesis	Marine cytotoxic jaspine B and its stereoisomers: biological activity and syntheses

s63	peloruside A, microtubule stabilising	Peloruside A: a lead non-taxoid-site microtubule-stabilizing agent with potential activity against cancer, neurodegeneration, and autoimmune disease
s64	guanidines	The chemistry and biology of guanidine natural products
s65	polycyclic guanidine, sponges	Polycyclic guanidine alkaloids from Poecilosclerida marine sponges
s66	siderophores, fungi	Marine-derived fungal siderophores: a perception
s67	anthraquinones, fungi	Anthraquinones and derivatives from marine-derived fungi: structural diversity and selected biological activities
s68	domoic acid	Environmental roles and biological activity of domoic acid: a review
s69	phycotoxins, microalgae	Chemical diversity, origin, and analysis of phycotoxins
s70	yessotoxin, therapeutic	Yessotoxin, a promising therapeutic tool
s71	labdanes	Biological evaluation of terrestrial and marine plant originated labdane diterpenes (a review)
s72	fucosterol, health	Health benefit of fucosterol from marine algae: a review
s73	calyculin, biogenesis	Calyculin: Nature's way of making the sponge-derived cytotoxin
s74	palytoxin, Cnidaria, health	Palytoxin-containing aquarium soft corals as an emerging sanitary problem
s75	astaxanthin, anti-atherosclerotic	Potential anti-atherosclerotic properties of astaxanthin
s76	trabectedin. anticancer	Unique features of trabectedin mechanism of action
s77	trabectedin. anticancer	Trabectedin for soft tissue sarcoma: current status and future perspectives
s78	phlorotannins, brown algae, cosmeceuticals	Bioactive properties and potentials cosmeceutical applications of phlorotannins isolated from brown seaweeds: a review
s79	polyketides, biosynthesis	Biosynthesis of polyketides by trans-AT polyketide synthases
s80	peroxide-derived polyketide, sponges	Structural diversity and chemical synthesis of peroxide and peroxide-derived polyketide metabolites from marine sponges
s81	antimicrobials, macroalgae	Antimicrobial action of compounds from marine seaweed
s82	antimicrobials, macroalgae	Antimicrobial bioactive compounds from marine algae: a mini review
s83	antimicrobials, fungi	Antimicrobial secondary metabolites from marine fungi: a mini review
s84	antimicrobials, cnidarians	Antimicrobials from cnidarians. a new perspective for anti-infective therapy?
s85	antimicrobials, microbes/invertebrates	Antimicrobial compounds from marine invertebrates-derived microorganisms
s86	antimicrobials, microbes/sponges	Bioprospecting sponge-associated microbes for antimicrobial compounds
s87	antimicrobials, microorganisms	Antimicrobial metabolites from marine microorganisms
s88	antimicrobials, microalgae	Antimicrobial compounds from eukaryotic microalgae against human pathogens and diseases in aquaculture
s89	antibacterials, algae	Antibacterial derivatives of marine algae: an overview of pharmacological mechanisms and applications
s90	antibiotics, fungi	From discovery to production: biotechnology of marine fungi for the production of new antibiotics
s91	antimycobacterials, invertebrates	Antimycobacterial metabolites from marine invertebrates
s92	antimycobacterials, *Pseudopterogorgia elisabethae*	Antimycobacterial natural products from marine *Pseudopterogorgia elisabethae*
s93	anticancer	Cancer control potential of marine natural product scaffolds through inhibition of tumor cell migration and invasion
s94	anticancer	Novel therapeutic strategies against cancer: marine-derived drugs may be the answer?
s95	leukemia, triterpene glycosides	Ceramide as a target of marine triterpene glycosides for treatment of human myeloid leukemia
s96	antitumour, Actinobacteria	Ocean dwelling actinobacteria as source of antitumor compounds
s97	anticancer	Marine natural flora: a potent source of anticancer metabolites
s98	cytotoxicity, allelopathy	Significance of investigating allelopathic interactions of marine organisms in the discovery and development of cytotoxic compounds
s99	multidrug resistance, cancer	Marine natural products as models to circumvent multidrug resistance

s100	anticancer, autophagy	Blue-print autophagy: potential for cancer treatment
s101	antitumour, chemoprevention	Natural products as a vital source for the discovery of cancer chemotherapeutic and chemopreventive agents
s102	anti-angiogenic	Search for anti-angiogenic substances from natural sources
s103	anticancer, brown algae	A review of the components of brown seaweeds as potential candidates in cancer therapy
s104	PSP toxins, fish	Impact and effects of paralytic shellfish poisoning toxins derived from harmful algal blooms to marine fish
s105	nutraceuticals, bioactives, fish	Nutraceuticals and bioactive components from fish for dyslipidemia and cardiovascular risk reduction
s106	antidiabetics, mangroves	Antidiabetic potential of mangrove plants: a review
s107	anti-inflammatories, TRP channels	Marine metabolites modulating CB receptors and TRP channels
s108	anti-inflammatories, alage	Potential anti-inflammatory natural products from marine algae
s109	anti-inflammatories, neutrophils	Marine natural product inhibitors of neutrophil-associated inflammation
s110	antifouling, microbes/macroorganisms	Natural antifouling compound production by microbes associated with marine macroorganisms — a review
s112	leishmania, invertebrates	Natural products from marine invertebrates against Leishmania parasites: a comprehensive review
s113	Alzheimer	New drugs from marine organisms in Alzheimer's disease
s114	anti-obesity	Marine-derived bioactive compounds with anti-obesity effect: a review
s115	anti-obesity, algae	Marine algae as a potential source for anti-obesity agents
s116	antioxidants, algal polyphenols	Antioxidant activity of marine algal polyphenolic compounds: a mechanistic approach
s117	neuroprotectives, macroalgae	Neuroprotective activities of natural products from marine macroalgae during 1999–2015
s118	neuroprotectives, sponges	Neuroprotective activities of marine natural products from marine sponges
s119	axonal transport, neurodegeneration	Axonal transport and neurodegeneration: how marine drugs can be used for the development of therapeutics
s120	radioprotectives, algae	Potential applications of radioprotective phytochemicals from marine algae
s121	New Caledonia	Marine natural products from New Caledonia—a review
s122	Antarctica, ecology, pharmacology	Ecological and pharmacological activities of Antarctic marine natural products
s123	Hawaii	Half a century of Hawaiian marine natural products
s124	Okinawa, bioactives	Search for new bioactive marine natural products and application to drug development
s125	phenotypic screening, drug targets	Exploring new drug targets through the identification of target molecules of bioactive natural products
s126	bioactives, drug discovery, nutraceuticals	Marine bioactive compounds and health promoting perspectives; innovation pathways for drug discovery
s127	drug discovery	Advanced tools in marine natural drug discovery
s128	supply problem, eribulin, ecteinascidin	Developing natural product drugs: supply problems and how they have been overcome
s129	supply problem, drug development	Marine-derived pharmaceuticals – challenges and opportunities
s130	supply problem, anticancer	Marine invertebrate metabolites with anticancer activities: solutions to the "supply problem"
s131	mode of action, IAF	Elucidating the mode of action of marine natural products through an immunoaffinity fluorescent (IAF) approach
s132	mass spectrometry, genomics, discovery	Integrating mass spectrometry and genomics for cyanobacterial metabolite discovery
s133	Marfey's method	C3 and 2D C3 Marfey's methods for amino acid analysis in natural products
s134	taxonomy, geography	Natural products discovery needs improved taxonomic and geographic information



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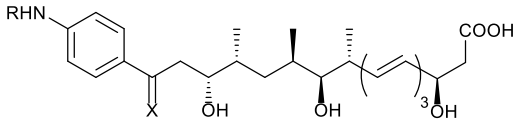
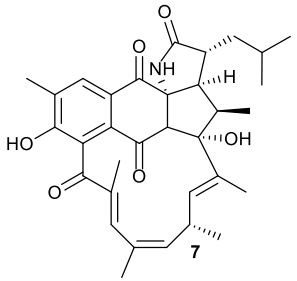


†2 R = H, X = O
†3 R = Me, X = O
†4 R = Ac, X = O
†5 R = Ac, X = ◄OH,H
†6 R = β-glucose, X = O



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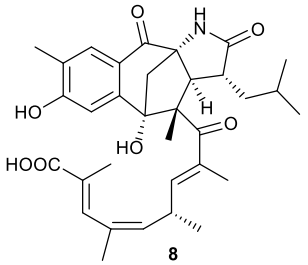

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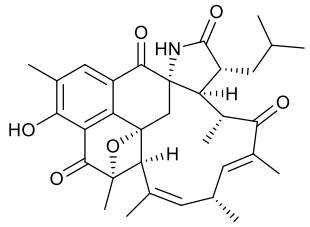

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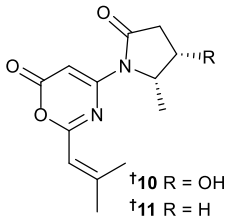
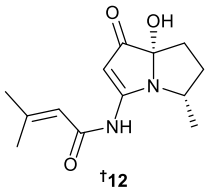


†10 R = OH
†11 R = H



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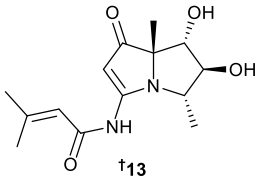

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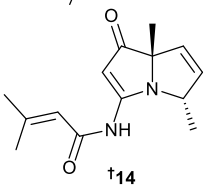
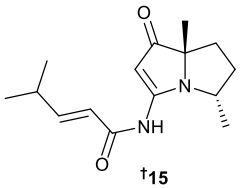


†14



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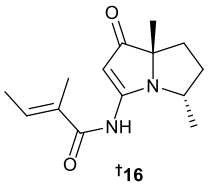

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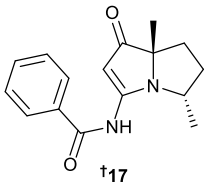


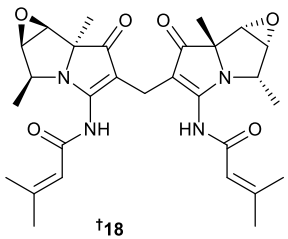
†17

14 Actinobacteria *Streptomyces griseus* // Kiaochow Bay, China // Grisemycin, a bridged angucyclinone with a methylsulfinyl moiety from a marine-derived *Streptomyces* sp.
1 // N // grisemycin // mod. cytotox. HTCL (IC_{50} = 31.54 uM (HL-60) // Abs. config. assigned by X-ray diffrac. anal.

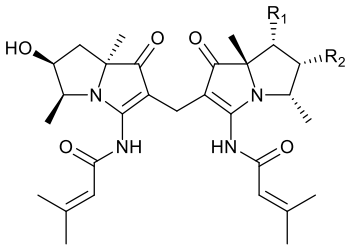
16 Actinobacteria *Streptomyces* sp. // Buan, Republic of Korea // Mohangic acids A–E, p-aminoacetophenonic acids from a marine-mudflat-derived *Streptomyces* sp.
2 // N // mohangic acid A // no cytotox. vs 6 HTCL (IC_{50} > 10 µM) // Abs. config. assigned by Kishi method, and NMR studies
3 // N // mohangic acid B // no cytotox. vs 6 HTCL (IC_{50} > 10 µM) // Abs. config. assigned by ECD compar. with mohangic acid A
4 // N // mohangic acid C // no cytotox. vs 6 HTCL (IC_{50} > 10 µM) // Abs. config. assigned by ECD compar. with mohangic acid A
5 // N // mohangic acid D // no cytotox. vs 6 HTCL (IC_{50} > 10 µM) // Abs. config. assigned by ECD compar. with mohangic acid A
6 // N // mohangic acid E // potent quinone reductase inhib. Activ. No cytotox. vs 6 HTCL (IC_{50} > 10 µM) // Abs. config. assigned by ECD compar. with mohangic acid A

18 Actinobacteria *Streptomyces* sp. // Oceanside, California // Ansalactams B–D illustrate further biosynthetic plasticity within the ansamycin pathway
7 // N // ansalactam B // mod. MRSA activ., MIC = 31.2 µg/mL; no cytotox. Vs 1 HTCL (HCT-116) // *
8 // N // ansalactam C // mod. MRSA activ., MIC = 31.2 µg/mL; no cytotox. vs 1 HTCL (HCT-116) // *
9 // N // ansalactam D // mod. MRSA activ., MIC = 62.5 µg/mL; no cytotox. vs 1 HTCL (HCT-116) // *

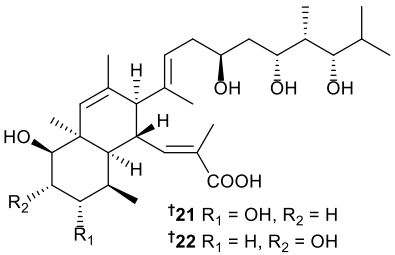
19 Actinobacteria *Streptomyces spinoverrucosus* // The Bahamas // 1,3-Oxazin-6-one derivatives and bohemamine-type pyrrolizidine alkaloids from a marine-derived *Streptomyces spinoverrucosus*
10 // N // spinoxazine A // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
11 // N // spinoxazine B // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
12 // N // bohemamine D // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
13 // N // bohemamine E // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
14 // N // bohemamine F // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
15 // N // bohemamine G // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
16 // N // bohemamine H // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.
17 // N // bohemamine I // no cytotox. vs 4 HTCL; no AB activ. vs 2 strains. // Abs. config. assigned by ECD and quantum chemical calc.



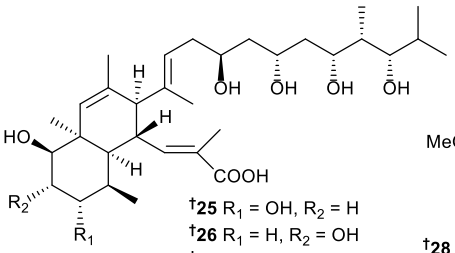
†18



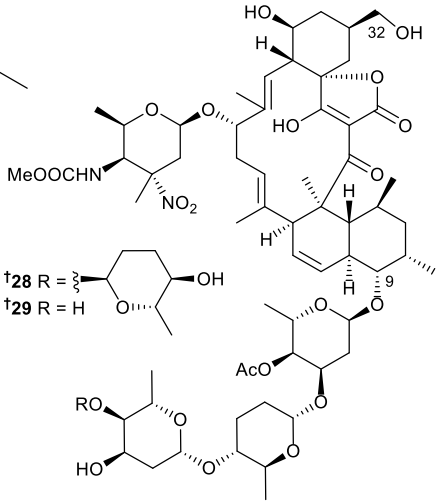
†19 R_1 = H, R_2 = OH
†20 R_1 = OH, R_2 = H



†21 R_1 = OH, R_2 = H
†22 R_1 = H, R_2 = OH
†23 R_1 = OH, R_2 = OH
†24 R_1 = H, R_2 = H



†25 R_1 = OH, R_2 = H
†26 R_1 = H, R_2 = OH
†27 R_1 = H, R_2 = H



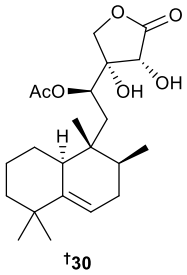
†28 R = ξ-OH
†29 R = H

20 Actinobacteria *Streptomyces spinoverrucosus* // The Bahamas // Discovery, characterization, and analogue synthesis of bohemamine dimers generated by non-enzymatic biosynthesis
18 // N // dibohemamine A // No cytotox. vs 4 HTCL (IC_{50} > 24 µM) // Abs. config. assigned by ECD.
19 // N // dibohemamine B // cytotox. vs 4 HTCL; best activ. vs A549 (IC_{50} = 0.14 µM) // Abs. config. assigned by ECD.
20 // N // dibohemamine C // cytotox. vs 4 HTCL; best activ. vs A549 (IC_{50} = 0.145 µM) // Abs. config. assigned by ECD.

22 Actinobacteria *Streptomyces* sp. // Padana Nahua, Papua New Guinea // Structures of nahuoic acids B–E produced in culture by a *Streptomyces* sp. isolated from a marine sediment and evidence for the inhibition of the histone methyl transferase SETD8 in human cancer cells by nahuoic acid A
22 // N // nahuoic acid Bi // mod. inhib. of SETD8 // Abs. config. assigned via data compar. with congeners
23 // N // nahuoic acid Ci = nahuoic acid Bii // mod. inhib. of SETD8 // Abs. config. assigned via data compar. with congeners
25 // N // nahuoic acid Di = nahuoic acid Eii // mod. inhib. of SETD8 // Abs. config. assigned via data compar. with congeners
26 // N // nahuoic acid Ei // mod. inhib. of SETD8 // Abs. config. assigned via data compar. with congeners

21 Actinobacteria *Streptomyces* sp. // S. China Sea // Nahuoic acids B–E, polyhydroxy polyketides from the marine-derived *Streptomyces* sp. SCSGAA 0027
23 // N // nahuoic acid Bii = nahuoic acid Ci // No cytotox. vs 7 HTCL; no acetylcholinestrase no AB activ.; weak biofilm formation inhib. // Abs. config. chemical deriv. and Mosher's.
24 // N // nahuoic acid Cii // No cytotox. vs 7 HTCL; no AChE no AB activ.; weak biofilm formation inhib. // Abs. config. assigned chemical deriv. and Mosher's method.
27 // N // nahuoic acid Dii // No cytotox. vs 7 HTCL; no AChE no AB activ.; weak biofilm formation inhib // Abs. config. chemical deriv. and Mosher's method.
25 // N // nahuoic acid Eii = nahuoic acid Di // No cytotox. vs 7 HTCL; no AChE no AB activ.; weak biofilm formation inhib. // Abs. config. chemical deriv. and Mosher's method.

25 Actinobacteria *Micromonospora* sp. // Bohai Bay, Dalian, China // Tetrocarcins N and O, glycosidic spirotetronates from a marine-derived *Micromonospora* sp. identified by PCR-based screening
28 // N // tetrocarcin N // potent AB activ. vs *B. subtilis* (MIC = 2 µg/mL // Abs. config. of aglycone assigned by ECD compar., Abs. config. of sugar units assumed same as tetrocarcin A
29 // N // tetrocarcin O // potent AB activ. vs *B. subtilis* (MIC = 64 µg/mL) // Abs. config. aglycone assigned by ECD compar., Abs. config. of sugar units assumed same as tetrocarcin A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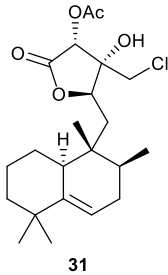
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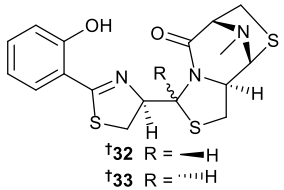
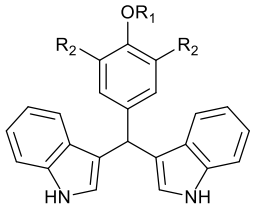
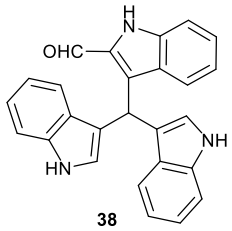

†32 R = H
†33 R = H


34 R_1 = *n*Bu, R_2 = H
35 R_1 = *n*Pr, R_2 = H
36 R_1 = Et, R_2 = H
37 R_1 = Me, R_2 = NO_2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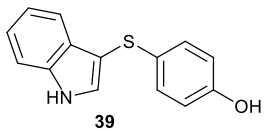
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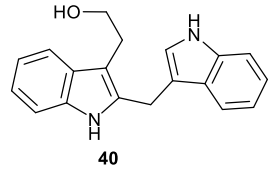
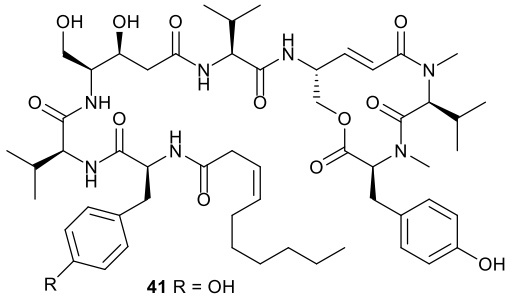
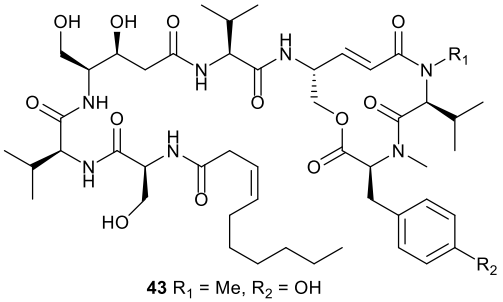
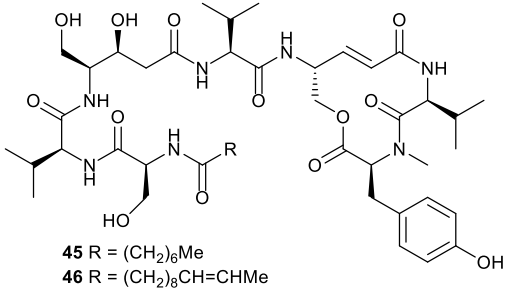
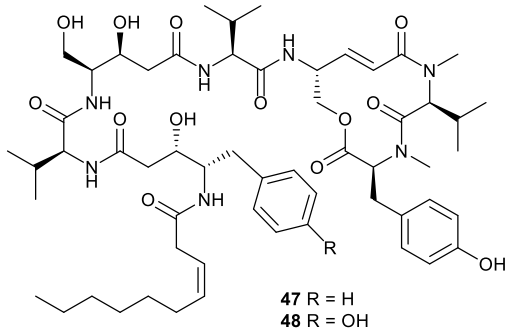

40

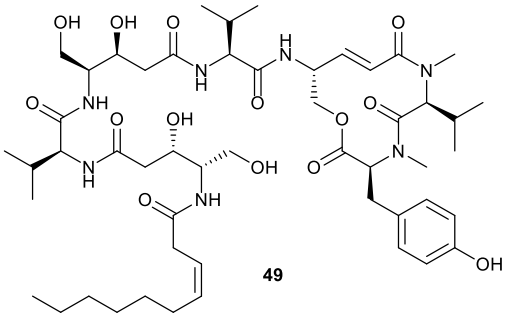
28 Actinobacteria *Micromonospora* sp. // Stanblum State Park, Florida, USA // Micromonohalimanes A and B: antibacterial halimane-type diterpenoids from a marine *Micromonospora* species
30 // N // micromonohalimane A // weak MRSA activ., MIC >200 µg/mL // Abs. config. assigned by X-ray diffrac. anal.
31 // N // micromonohalimane B // mod. MRSA activ., MIC = 40 µg/mL // *
29 Firmicutes *Brevibacillus* sp. // Ohtsuchi, Iwate, Japan // Ulbactins F and G, polycyclic thiazoline derivatives with tumor cell migration inhibitory activity from *Brevibacillus* sp.
32 // N // ulbactin F // Inhibit migration of A431 cells with IC_{50} = 6.4 µM; IA vs 3 microb. strains at 50 µg/mL // Abs. config. assigned by X-ray diffrac. anal.
33 // N // ulbactin G // Inhibit migration of A431 cells with IC_{50} = 6.1 µM; IA vs 3 microb. strains at 50 µg/mL // Abs. config. assigned by X-ray diffrac. anal.
30 Proteobacteria *Vibrio splendidus*, Actinobacteria *Arthrobacter psychrochitiniphilus* // S. Orkney Is. // Marine bacteria, XLVII – psychrotolerant bacteria from extreme Antarctic habitats as producers of rare bis- and trisindole alkaloids
34 // N // turbomycin C // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // *
35 // N // turbomycin D // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // *
36 // N // turbomycin E // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // *
37 // N // turbomycin F // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // *
38 // N // trisindolal // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // *
39 // N // * // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // *
40 // N // * // mod. cytotox. Vs 11 HTCL; some AM activ. vs 7 strains // isol. from Actinobacteria *Arthrobacter psychrochitiniphilus*

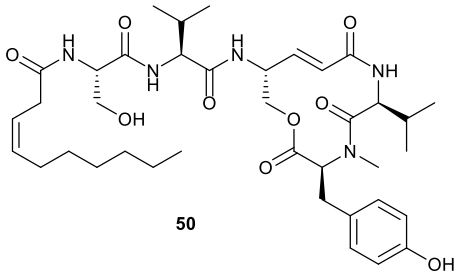

41 R = OH
42 R = H

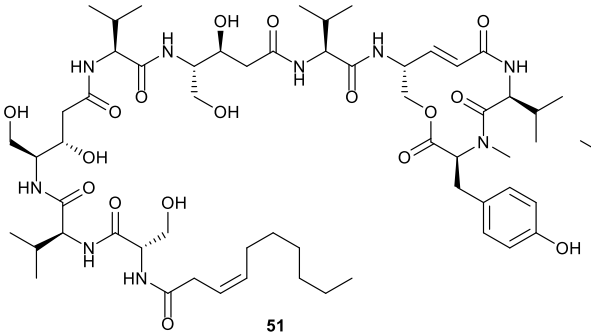

43 R_1 = Me, R_2 = OH
44 R_1 = R_2 = H

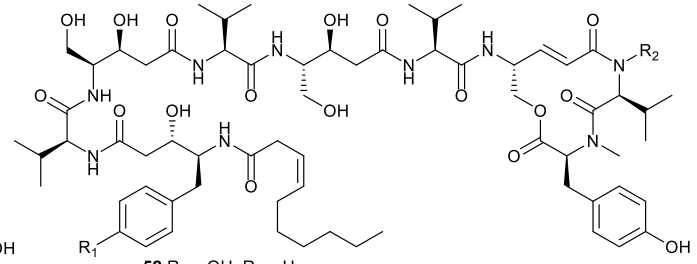

45 R = $(CH_2)_6Me$
46 R = $(CH_2)_8CH{=}CHMe$

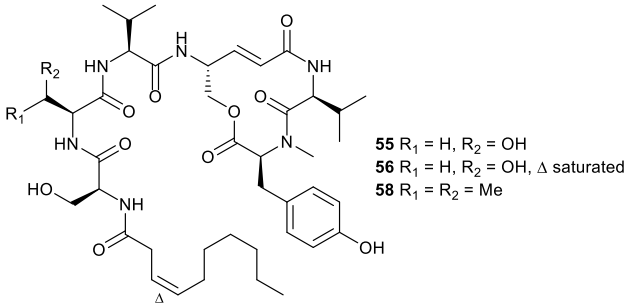












31 76 *Thalassospira*, 29 *Tistrella,* 16 *Oceanibaculum,* 2 *Fodinicurvata investigated during these studies* // Microbes sampled from oceans around the world // Family-wide structural characterization and genomic comparisons decode the diversity-oriented biosynthesis of thalassospiramides by marine proteobacteria

41 // N // Thalassospiramide A6 // potent calpain inhib.; IC_{50}=37.4 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

42 // N // Thalassospiramide A7 // potent calpain inhib.; IC_{50}=~108 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

43 // N // Thalassospiramide A8 // potent calpain inhib.; IC_{50}=53.8 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

44 // N // Thalassospiramide A9 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

45 // N // Thalassospiramide A10 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

46 // N // Thalassospiramide A11 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

47 // N // Thalassospiramide B3 // potent calpain inhib.; IC_{50}=~58 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

48 // N // Thalassospiramide B4 // potent calpain inhib.; IC_{50}=~39 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

49 // N // Thalassospiramide B5 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

50 // N // Thalassospiramide C2 // potent calpain inhib.; IC_{50}=1.2 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

51 // N // Thalassospiramide E2 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

52 // N // Thalassospiramide F1 // potent calpain inhib.; IC_{50}=41.3 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

53 // N // Thalassospiramide F2 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

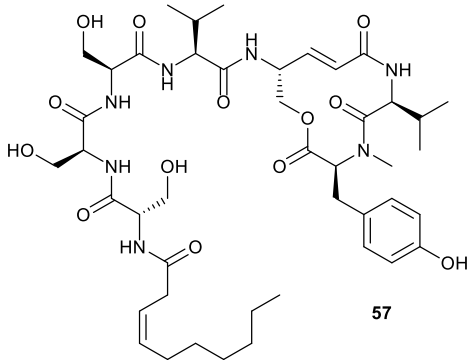
54 // N // Thalassospiramide F3 // potent calpain inhib.; IC_{50}=~60 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

55 // N // Thalassospiramide H // potent calpain inhib.; IC_{50}=36.8 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

56 // N // Thalassospiramide H1 // potent calpain inhib.; IC_{50}=36.8 nM // Abs. config. assigned by compar. with 16 known thalassospiramides

57 // N // Thalassospiramide H2 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides

58 // N // Thalassospiramide H3 // potent calpain inhib.; IC_{50}=~95 nM // Abs. config. assigned by compar. with 16 known thalassospiramides
59 // N // Thalassospiramide I // potent calpain inhib.; IC_{50}=~120 nM // Abs. config. assigned by compar. with 16 known thalassospiramides
60 // N // Thalassospiramide I1 // NT // Abs. config. assigned by compar. with 16 known thalassospiramides
61 // N // Thalassospiramide J // potent calpain inhib.; IC_{50}=~50 nM // Abs. config. assigned by compar. with 16 known thalassospiramides



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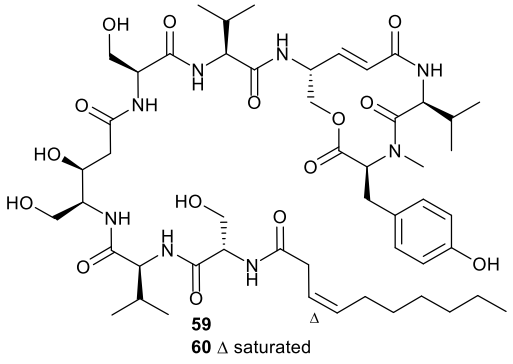
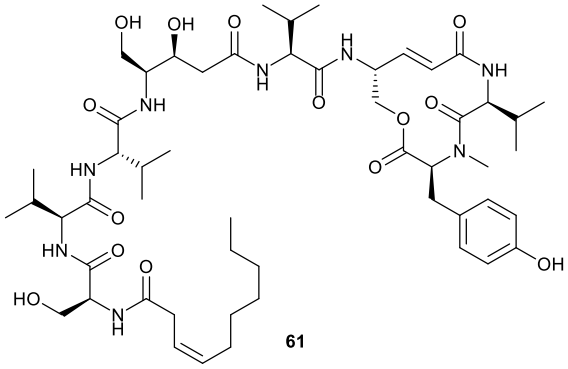


59
60 Δ saturated



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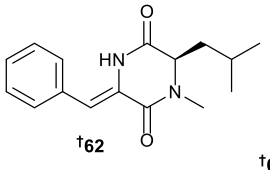
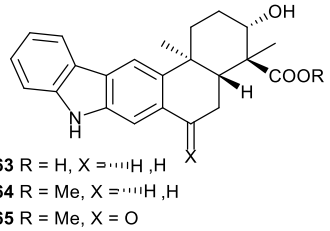
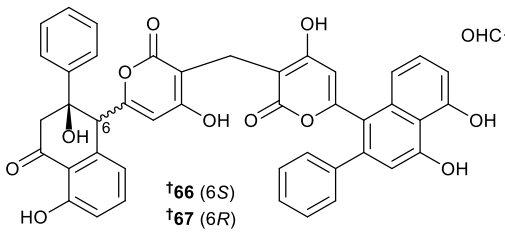


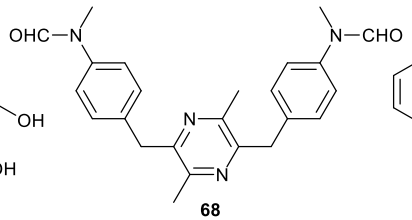
†**62**



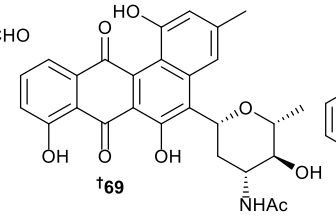
†**63** R = H, X = ⋯H ,H
†**64** R = Me, X = ⋯H ,H
†**65** R = Me, X = O



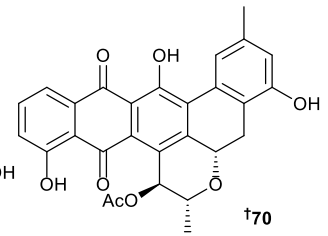
†**66** (6*S*)
†**67** (6*R*)



68

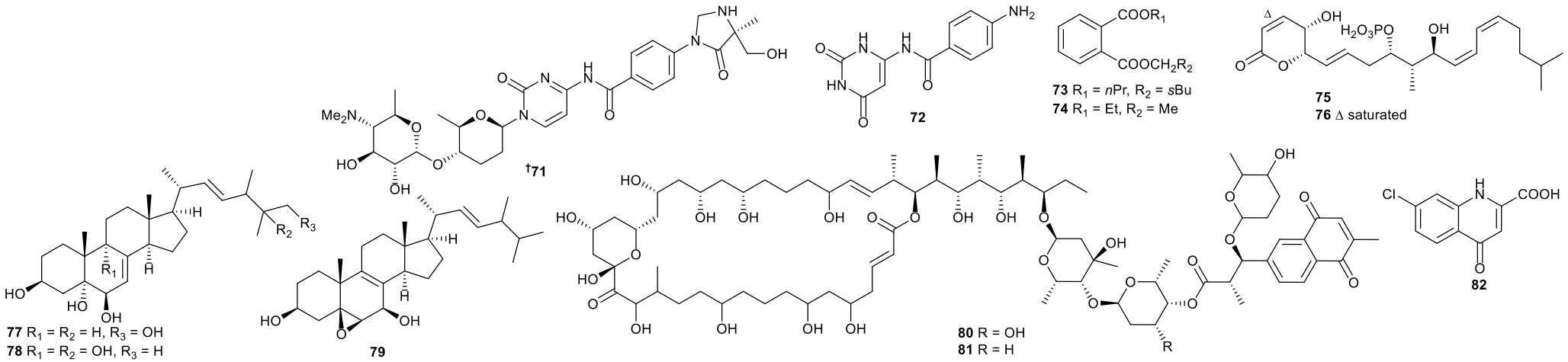


†**69**



†**70**

32 Actinobacteria *Streptomyces* sp. // S. China Sea // A new diketopiperazine derivative from a deep sea-derived *Streptomyces* sp. SCSIO 04496
62 // N // * // No cytotox. vs 5 HTCL panel at 100 μM // Abs. config. assigned by chiral-phase HPLC
33 Actinobacteria *Streptomyces* sp. // Sangtaeseo-ri, Shinui-myeon, Shinan-gun, Jollanam-do, Korea // Antiviral indolosesquiterpenoid xiamycins C–E from a halophilic actinomycete
63 // N // xiamycin C // mod. PEDV activ.; low cytotox. activ. vs Vero cells // Abs. config. assigned by ECD.
64 // N // xiamycin D // mod. PEDV activ.; low cytotox. activ. vs Vero cells // Abs. config. assigned by ECD.
65 // N // xiamycin E // mod. PEDV activ.; low cytotox. activ. vs Vero cells // Abs. config. assigned by ECD.
34 Actinobacteria *Streptomyces* sp. // Zhanqiao Beach, Qingdao, China // New α-glucosidase inhibitors from marine algae-derived *Streptomyces* sp. OUCMDZ-3434
66 // N // wailupemycin H // Strong inhib. of α-glucosidase; low cytotox. vs murine cell line (IEC-6) // Abs. config. assigned by ECD.
67 // N // wailupemycin I // Strong inhib. of α-glucosidase; low cytotox. vs murine cell line (IEC-6) // Abs. config. assigned by ECD.
35 Actinobacteria *Streptomyces griseus* // Hwangdo, S. Korea // Marine-derived secondary metabolite, griseusrazin A, suppresses inflammation through heme oxygenase-1 induction in activated RAW264.7 macrophages
68 // N // griseusrazin A // Good AI activ.; HO-1 induction // *
36 Actinobacteria *Streptomyces* sp. // Zhoushan City, Zhejiang Province, China // Bioactive polycyclic quinones from marine *Streptomyces* sp. 182SMLY
69 // N // N-acetyl-N-demethylmayamycin // mod. cytotox. vs 4 HTCL; IC_{50} range 0.5–3.9 μM // Abs. config. assigned by ECD.
70 // N // streptoanthraquinone A // mod. cytotox. vs 4 HTCL; IC_{50} range 3.3–7.3 μM // Abs. config. assigned by ECD.



37 Actinobacteria *Streptomyces rochei* // Kaş, Turkey // Cytosine-type nucleosides from marine-derived *Streptomyces rochei* 06CM016
71 // N // rocheicoside A // mod. AB activ. vs 3 microb. strains; MIC range 4 - 16 µg/mL // Abs. config. assigned by 2D NOESY anal. and molecular modeling studies
72 // N // * // mod. AB activ. vs 3 microb. strains; MIC range 8 - 16 µg/mL // *

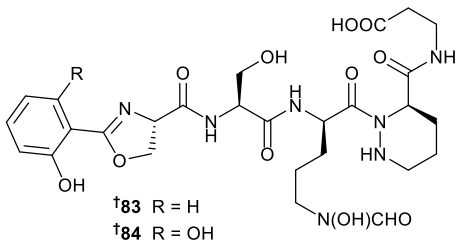
38 Actinobacteria *Streptomyces cheonanensis* // Coringa, India // Bioactive metabolites produced by *Streptomyces cheonanensis* VUK-A from Coringa mangrove sediments: isolation, structure elucidation and bioactivity
73 // M // * // mod. AB activ. vs 22 microb. strains, MIC range 4 - 128 µg/mL; mod. cytotox. vs 4 HTCL // *
74 // M // * // mod. AB activ. vs 22 microb. strains; MIC range 16 - >512 µg/mL // *

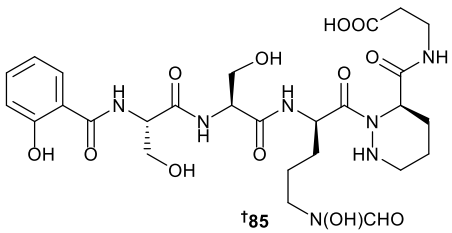
39 Actinobacteria *Streptomyces* sp. // São Sebastião Channel, Brazil // Identification of two new phosphorylated polyketides from a Brazilian *Streptomyces* sp. through the use of LC-SPE/NMR
75 // N // phosdiecin A // NT // Rel. config. only
76 // N // phosdiecin B // NT // Rel. config. only

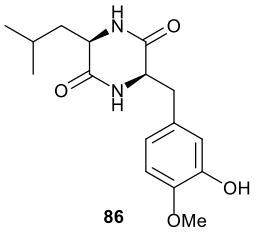
40 Actinobacteria *Streptomyces anandii* // Hailing Is., Yangjiang, Guangdong province, China // Ergosterols from the culture broth of marine *Streptomyces anandii* H41-59
77 // N // ananstreps A // Low or no cytotox. vs 3 HTCL; no activ. vs 5 microb. // Rel. config. only
78 // N // ananstreps B // Low or no cytotox. vs 3 HTCL; no activ. vs 5 microb. // Rel. config. only
79 // N // ananstreps C // Low or no cytotox. vs 3 HTCL; no activ. vs 5 microb. // Rel. config. only

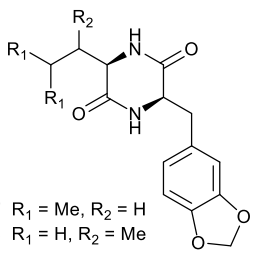
41 Actinobacteria *Streptomyces caniferus* // Guadelupe Is., Mexico // PM100117 and PM100118, new antitumor macrolides produced by a marine *Streptomyces caniferus* GUA-06-05-006A
80 // N // PM100117 // potent cytotox. vs 3 HTCL; slight antifung. activ. // *
81 // N // PM100118 // potent cytotox. vs 3 HTCL; slight antifung. activ. // *

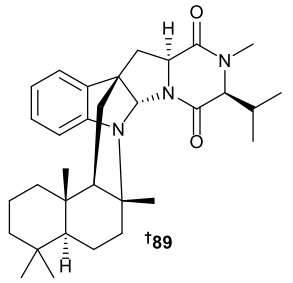
42 Actinobacteria *Streptomyces* sp. // Mediterranean Sea // Ageloline A, new antioxidant and antichlamydial quinolone from the marine sponge-derived bacterium *Streptomyces* sp. SBT345
82 // N // ageloline A // mod. AO and AF activ.; no cytotox. vs HL-60 cells // *

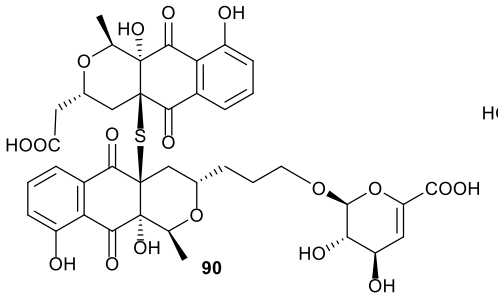


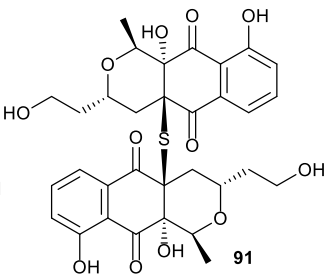


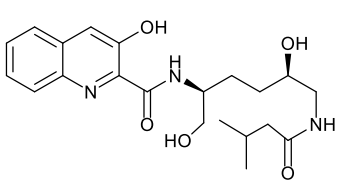


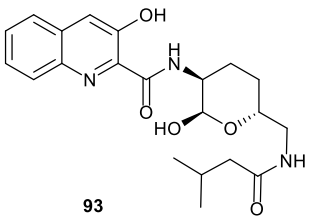


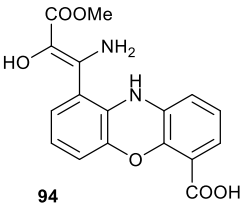












43 Actinobacteria *Streptomyces gandocaensis* // Punta Mona Is., Costa Rica // Discovery of cahuitamycins as biofilm inhibitors derived from a convergent biosynthetic pathway
83 // N // cahuitamycin A // mod. siderphore activ. // Abs. config. assigned by Marfey's method
84 // N // cahuitamycin B // mod. siderphore activ. // Abs. config. assigned by Marfey's method
85 // N // cahuitamycin C // mod. siderphore activ. // Abs. config. assigned by Marfey's method

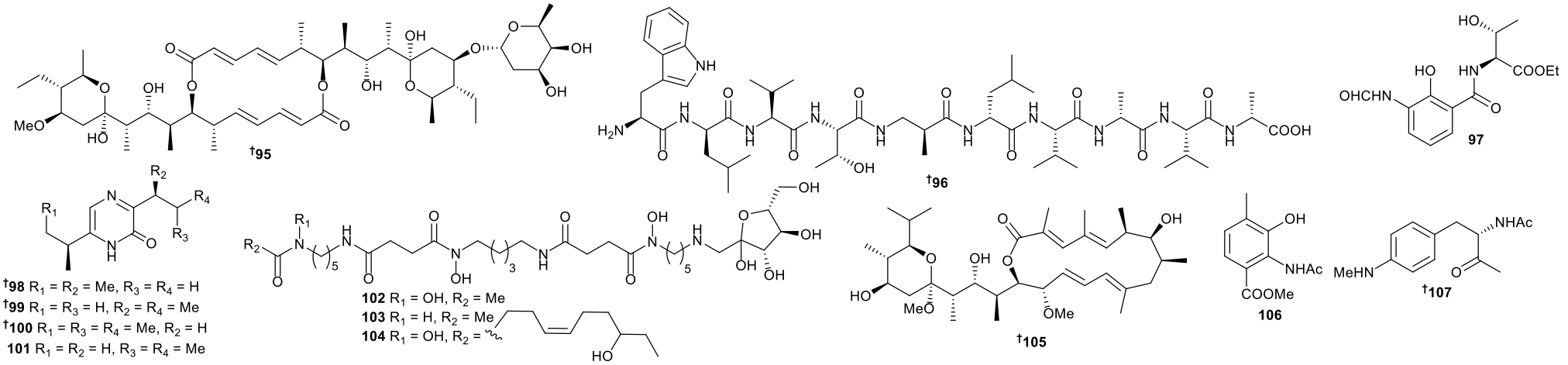
44 Actinobacteria *Streptomyces* sp. // Not identified // Three new 2,5-diketopiperazines from the fish intestinal *Streptomyces* sp. MNU FJ-36
86 // N // * // weak cytotox. activ. vs 3 HTCL; IC_{50} >28 µg/mL // Rel. config. only
87 // N // * // weak cytotox. activ. vs 3 HTCL; IC_{50} >28 µg/mL // Rel. config. only
88 // N // * // weak cytotox. activ. vs 3 HTCL; IC_{50} >28 µg/mL // Rel. config. Only

45 Actinobacteria *Streptomyces* sp. // Guangdong province, China // Structure and absolute configuration of drimentine I, an alkaloid from *Streptomyces* sp. CHQ-64
89 // N // drimentine I // weak cytotox. activ. vs 2 HTCL; IC_{50}= 16.73 µM (HeLa) // Abs. config. assigned by X-ray diffrac.

46 Actinobacteria *Streptomyces* sp. // Xisha Is. // Naquihexcin A, a *S*-bridged pyranonaphthoquinone dimer bearing an unsaturated hexuronic acid moiety from a sponge-derived *Streptomyces* sp. HDN-10-293
90 // N // naquihexcin A // No cytotox. vs 7 HTCL; IC_{50} > 10 µM // Abs. config. assigned by ECD.
91 // N // naquihexcin B // No cytotox. vs 7 HTCL; IC_{50} > 10 µM // Abs. config. assigned by ECD.

47 Actinobacteria *Streptomyces* sp. // La Jolla, CA, USA // Actinoquinolines A and B, anti-inflammatory quinoline alkaloids from a marine-derived *Streptomyces* sp., strain CNP975
92 // N // actinoquinoline A // potent COX-1 and COX-2 inhib. // Amide rot.al isomerism, resulted in complex NMR data
93 // N // actinoquinoline B // potent COX-1 and COX-2 inhib. // *

48 Actinobacteria *Streptomyces* sp. // Pollonia, Milos, Greece // Strepoxazine A, a new cytotoxic phenoxazin from the marine sponge-derived bacterium *Streptomyces* sp. SBT345
94 // N // strepoxazine A // mod. cytotox. vs 1 HTCL; IC_{50} = 8 µg/mL (HL-60) // *



49 Actinobacteria *Streptomyces* sp. // Sanya, Hainan Province, China // Halichoblelide D, a new elaiophylin derivative with potent cytotoxic activity from mangrove-derived *Streptomyces* sp. 219807
95 // N // halichoblelide D // mod. cytotox. vs 2 HTCL; IC_{50} range 0.19 to 2.12 μM (HeLa, MCF-7) // Abs. config. assigned by ECD

50 Actinobacteria *Streptomyces* sp. // Kinko Bay, Kagoshima, Japan // Biosynthetic gene cluster for surugamide A encompasses an unrelated decapeptide, surugamide F
96 // N // surugamide F // NT // Abs. config. assigned by Marfey's method, Edman degrad. and total synth.

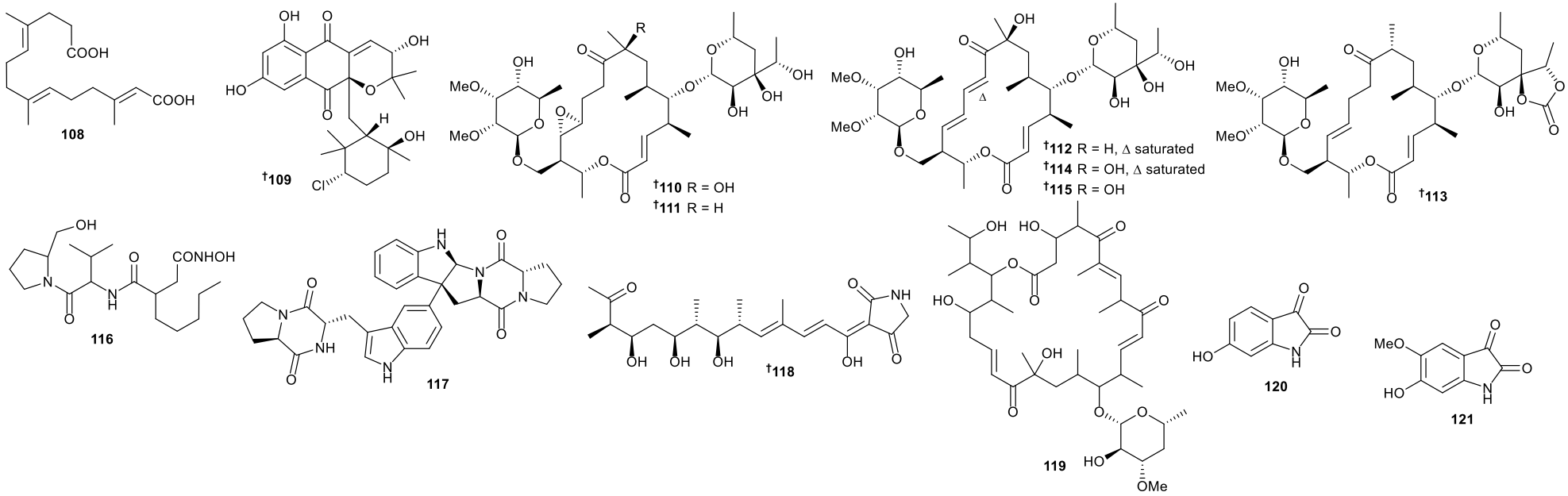
51 Actinobacteria *Streptomyces antibioticus* // Yamen Bridge, XinHui, GuangDong, China // Secondary metabolites from marine-derived *Streptomyces antibioticus* strain H74-21
97 // N // streptomyceamide C // mod. cytotox. vs 2 HTCL; no AF activ. // *

52 Actinobacteria *Streptomyces* sp. // Obhur, Saudi Arabia // Bioactive 2(1H)-pyrazinones and diketopiperazine alkaloids from a tunicate-derived actinomycete *Streptomyces* sp.
98 // N // * // Low cytotox. vs 3 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners
99 // N // * // Low cytotox. vs 3 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners
100 // M // * // Low cytotox. vs 3 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners
101 // M // deoxymutaaspergillic acid // Low cytotox. vs 3 HTCL // *

53 Actinobacteria *Streptomyces albus* // Trondheim fjord, Norway // New deferoxamine glycoconjugates produced upon overexpression of pathway-specific regulatory gene in the marine sponge-derived *Streptomyces albus* PVA94-07
102 // N // * // NT // *
103 // N // * // NT // *
104 // N // * // No AM activ. vs 7 strains; no cytotox. vs 3 HTCL // *

54 Actinobacteria *Streptomyces* sp. // Kenting, Taiwan // Bafilomycin M, a new cytotoxic bafilomycin produced by a *Streptomyces* sp. isolated from a marine sponge *Theonella* sp.
105 // N // bafilomycin M // Sign. cytotox. vs 4 HTCL; IC_{50} range, 0.060 - 0.389 μg/mL // Abs. config. assigned by compar. with congeners

55 Actinobacteria *Streptomyces* sp. // DongJi Is. // New metabolites and bioactive actinomycins from marine-derived *Streptomyces* sp. ZZ338
106 // N // * // No AM activ. vs 3 strains; no cytotox. vs 3 HTCL // *
107 // N // * // No AM activ. vs 3 strains; no cytotox. vs 3 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners



56 Actinobacteria *Streptomyces somaliensis* // S. China Sea // A new dioic acid from a wbl gene mutant of deepsea-derived *Streptomyces somaliensis* SCSIO ZH66
108 // N // * // No cytotox. vs 1 HTCL // *

57 Actinobacteria *Streptomyces* sp. // Baía Ana Chaves, Sao Tome and Principe // MDN-0170, a new napyradiomycin from *Streptomyces* sp. strain CA-271078
109 // N // MDN-0170 // mod. AM activ. vs 4 microb. strains; MIC range >64 µg/mL // Abs. config. proposed on biosyn. arguments

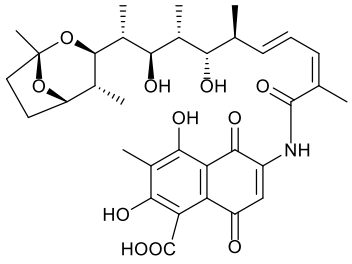
58 Actinobacteria *Streptomyces* sp. // Not identified // Aldgamycins J–O, 16-membered macrolides with a branched octose unit from *Streptomycetes* sp. and their antibacterial activities
110 // N // aldgamycin J // mod. AM activ. vs 4 microb. strains; MIC range 16 - >1000 µg/mL // Abs. config. by combin. of X-ray, degrad. chem., spec. rot. data compar. with congeners
111 // N // aldgamycin K // mod. AM activ. vs 4 microb. strains; MIC range 16 - >1000 µg/mL // Abs. config. by combin. of X-ray, degrad. chem., spec. rot. data compar. with congeners
112 // N // aldgamycin L // mod. AM activ. vs 4 microb. strains; MIC range 16 - >1000 µg/mL // Abs. config. by combin. of X-ray, degrad. chem., spec. rot. data compar. with congeners
113 // N // aldgamycin M // mod. AM activ. vs 4 microb. strains; MIC range 16 - >1000 µg/mL // Abs. config. by combin. of X-ray, degrad. chem., spec. rot. data compar. with congeners
114 // N // aldgamycin N // mod. AM activ. vs 4 microb. strains; MIC range 16 - >1000 µg/mL // Abs. config. by combin. of X-ray, degrad. chem., spec. rot. data compar. with congeners
115 // N // aldgamycin O // mod. AM activ. vs 4 microb. strains; MIC range 16 - >1000 µg/mL // Abs. config. by combin. of X-ray, degrad. chem., spec. rot. data compar. with congeners

59 Actinobacteria *Streptomyces* sp. // S. China Sea // The inhibition and resistance mechanisms of actinonin, isolated from marine *Streptomyces* sp. NHF165, against *Vibrio anguillarum*
116 // M // actinonin // VaPDF inhib. (IC_{50} = 6.94 µM); Vibrio anguillarum IC_{50} = 2.85 µM // *
117 // N // * // no VaPDF or Vibrio anguillarum activ. // *

60 Actinobacteria *Streptomyces* sp. // Not identified // Identification of an unexpected shunt pathway product provides new insights into tirandamycin biosynthesis
118 // N // tirandamycin K // weak AM activ. vs 4 microb. strains; MIC = or >100 µM // Abs. config. assigned by spectroscopic anal. and biosyn. inference

61 Actinobacteria *Streptomyces acidiscabies* // Okinawa, Japan // Acidiscalide, a new glycosylated macrolide from the marine actinomycete *Streptomyces acidiscabies*
119 // N // acidiscalide // No cytoxo. vs 3 HTCL // *

62 Actinobacteria *Streptomyces* sp. // Not identified // Structure elucidation and synthesis of hydroxylated isatins from Streptomycetes
120 // N // 6-hydroxyisatin // NT // struct. confirm. by total synth.
121 // N // 6-hydroxy-5-methoxyisatin // NT // struct. confirm. by total synth.



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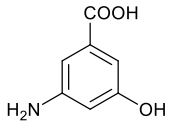

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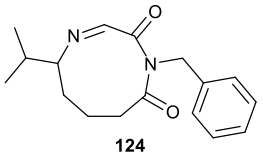

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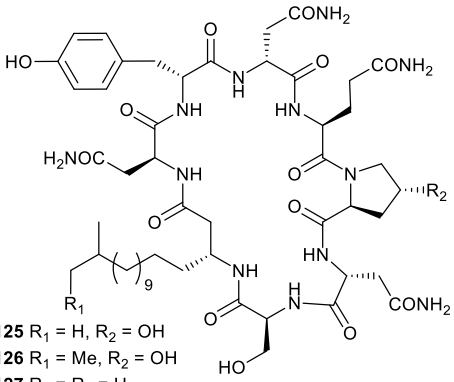
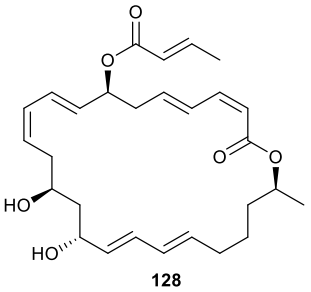


†125 R_1 = H, R_2 = OH
†126 R_1 = Me, R_2 = OH
†127 R_1 = R_2 = H



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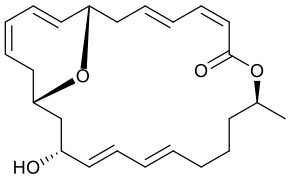

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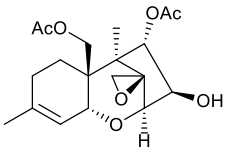

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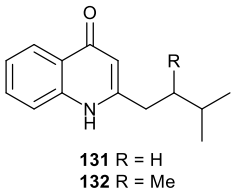
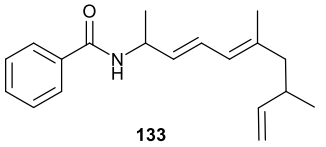


131 R = H
132 R = Me



133

63 Actinobacteria *Salinispora arenicola* // Trinity Bay, Galveston, USA // Rifamycin biosynthetic congeners: isolation and total synthesis of rifsaliniketal and total synthesis of salinisporamycin and saliniketals A and B
122 // N // rifsaliniketal // NT // *

64 Actinobacteria *Salinispora arenicola* // Los Angeles Bay, Gulf of California // Compounds isolated from *Salinispora arenicola* of the Gulf of California, México
123 // M // * // IA vs 2 microb. strains; MIC >100 µg/mL // *

65 Firmicutes *Bacillus amyloliquefaciens* // S. China Sea // A new alkaloid from the deep-sea bacterium *Bacillus amyloliquefaciens* Gas 00152
124 // N // halomide // potent tox. vs brine shrimp; LD_{50} = 0.07 µg/mL // *

66 Firmicutes *Bacillus* sp. // Incheon, Korea // New cyclic lipopeptides of the iturin class produced by saltern-derived *Bacillus* sp. KCB14S006
125 // N // iturin F1 // AM activ. vs 7 microb. strains (MIC range 3.125 - 12.5 µg/mL); mod. cytotox. Vs 2 HTCL (IC_{50} range 4.6 - 9.0 µM) // Abs. config. by Marfey's method and ECD.
126 // N // iturin F2 // AM activ. vs 7 microb. strains; MIC range 3.125 - 12.5 µg/mL // Abs. config. assigned by Marfey's method and ECD data.
127 // N // iturin A9 // AM activ. vs 7 microb. strains; MIC range 3.125 - 12.5 µg/mL // Abs. config. assigned by Marfey's method and ECD data.

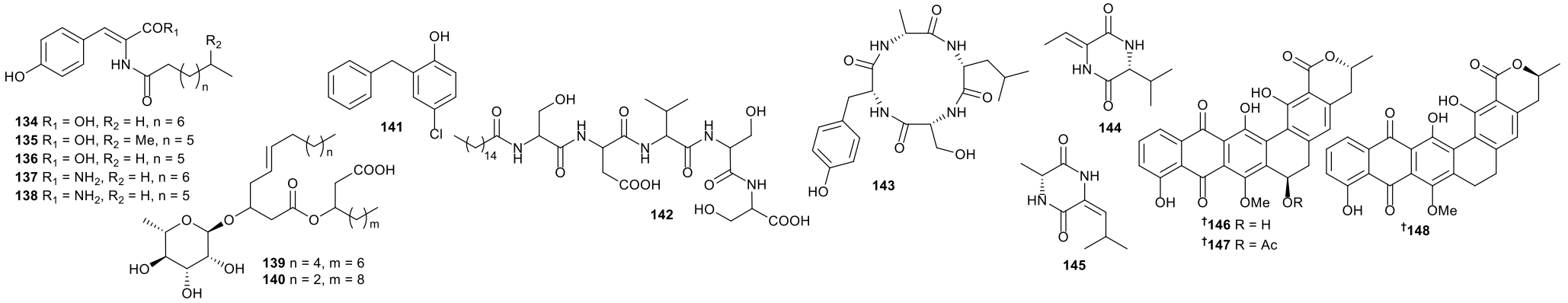
67 Firmicutes *Bacillus subtilis* // S.west Pacific Ocean // A new macrolactin antibiotic from deep sea-derived bacteria *Bacillus subtilis* B5
128 // N // 7-O-2′E-butenoyl macrolactin A // weak AF activ. vs 2 strains; MICs >500 µg/disc // *

68 Firmicutes *Bacillus subtilis* // Pacific Ocean // Macrolactins from marine-derived *Bacillus subtilis* B5 bacteria as inhibitors of inducible nitric oxide and cytokines expression
129 // N // 7,13-epoxyl-macrolactin A // inhib. LPS-induced iNOS, IL-1β and IL-6 mRNA Expression // *

69 Firmicutes *Bacillus licheniformis* // Geomun Is., S. Korea // Diacetoxyscirpenol as a new anticancer agent to target hypoxia-inducible factor 1
130 // M // diacetoxyscirpenol // HIF-1 inhib. // *

70 Proteobacteria *Pseudoalteromonas* sp. // East Sea, S. Korea // Liquid chromatography-MS-based rapid secondary-metabolite profiling of marine *Pseudoalteromonas* sp. M2
131 // M // * // IA vs melanin syn. in melan-A cells // *
132 // M // * // inhib. of melanin syn. in melan-A cells // *

71 Proteobacteria *Haliangium ochraceum* // * // Isolation and biosynthetic analysis of haliamide, a new PKS-NRPS hybrid metabolite from the marine myxobacterium *H. ochraceum*
133 // N // haliamide // mod. cytotox. vs 1 HTCL; IC_{50} = 12 µM (HeLa-S3); no AM activ. vs 4 strains // *



72 Proteobacteria *Thalassotalea* sp. // Galicia, Spain // *N*-Acyl dehydrotyrosines, tyrosinase inhibitors from the marine bacterium *Thalassotalea* sp. PP2-459
134 // N // thalassotalic acid A // Inhib. tyrosinase (IC_{50} 130 µM); // Thalassotalic acids previously assigned trivial names: Thalassomonic acids
135 // N // thalassotalic acid B // Inhib. tyrosinase (IC_{50} 470 µM); // Thalassotalic acids previously assigned trivial names: Thalassomonic acids
136 // N // thalassotalic acid C // Inhib. tyrosinase (IC_{50} 280 µM); // Thalassotalic acids previously assigned trivial names: Thalassomonic acids
137 // N // thalassotalamide A // IA vs tyrosinase at 1 mM // *
138 // N // thalassotalamide B // IA vs tyrosinase at 1 mM // *

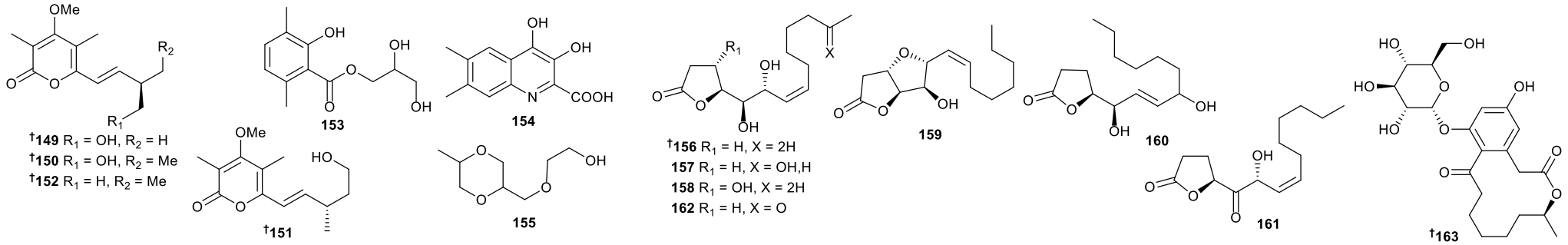
73 Proteobacteria *Pseudomonas* sp. // Mario Zucchelli Station, Baia Terranova, Ross sea, Antarctica // Antimicrobial activity of monoramnholipids produced by bacterial strains isolated from the Ross Sea (Antarctica)
139 // N // * // mod. AM activ. vs >10 strains; IC_{50} range <1 - >200 µM // *
140 // N // * // mod. AM activ. vs >10 strains; IC_{50} range <1 - >200 µM // *

74 Proteobacteria *Shewanella halifaxensis* // * // Identification, library synthesis and anti-vibriosis activity of 2-benzyl-4-chlorophenol from cultures of the marine bacterium *S. halifaxensis*
141 // M // * // mod. AM activ. vs 2 strains; IC_{50} range 41.2 - 54.9 µM // *

75 Bacteroidetes *Pontibacter korlensis* // Karaikal, Puducherry, India // Pontifactin, a new lipopeptide biosurfactant produced by a marine *Pontibacter korlensis* strain SBK-47: purification, characterization and its biological evaluation
142 // N // pontifactin // mod. AM activ. vs 12 strains // *

76 Actinobacteria *Brevibacterium* sp // S. China Sea // New cyclic tetrapeptide from the coral-derived endophytic bacteria *Brevibacterium* sp. L-4 collected from the South China Sea
143 // N // brevibactin A // NT // *
144 // M // brevibactin B // NT // *
145 // M // brevibactin C // NT // *

77 Actinobacteria *Streptosporangium* sp. // Lijiao Bay, Huanghai Sea, China // Discovery of pentangular polyphenols hexaricins A–C from marine *Streptosporangium* sp. CGMCC 4.7309 by genome mining
146 // N // hexaricin A // NT // Abs. config. assigned by ECD anal.
147 // N // hexaricin B // NT // Abs. config. assigned by ECD anal.
148 // N // hexaricin C // NT // Abs. config. assigned by ECD anal.



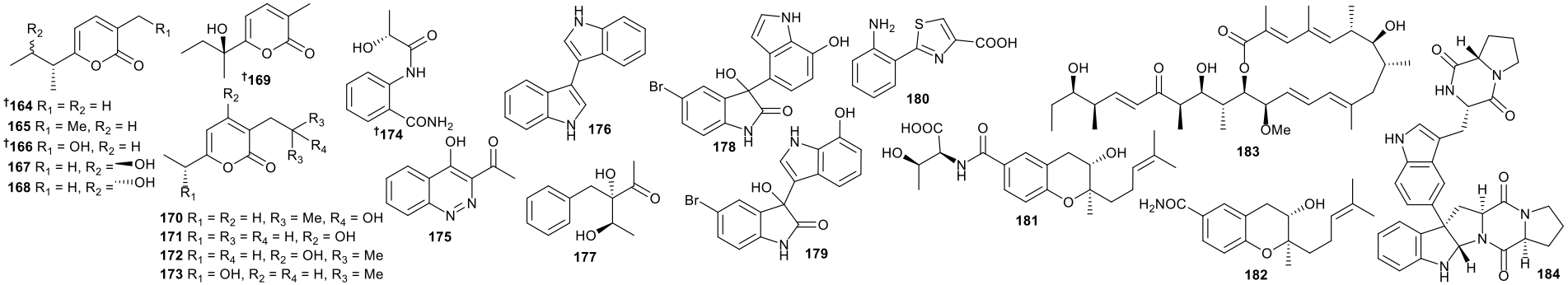
78 Actinobacteria *Streptomonospora* sp., *Nocardiopsis* sp. // La Jolla, California, USA // Marinopyrones A–D, α-pyrones from marine-derived actinomycetes of the family Nocardiopsaceae
149 // N // marinopyrone A // no NO prod. inhib.; no AM activ. vs 7 strains, no cytotox. vs 2 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners
150 // N // marinopyrone B // no NO prod. inhib.; no AM activ. vs 7 strains, no cytotox. vs 2 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners
151 // N // marinopyrone C // no NO prod. inhib.; no AM activ. vs 7 strains, no cytotox. vs 2 HTCL // Abs. config. assigned by spec. rot. data compar. with congeners
152 // N // marinopyrone D // NO prod. inhib. (IC_{50} 13 uM); no AM activ. vs 7 strains, no cytotox. vs 2 HTCL // Abs. config. assigned by chemical degrad. and deriv. expts

79 Actinobacteria *Verrucosispora sp* // S. China Sea // Anti-MRSA and anti-TB metabolites from marine-derived *Verrucosispora* sp. MS100047
153 // N // * // mod. AM activ. vs 7 strains; IC_{50} range 12.5 - >100 µg/mL // *

80 Actinobacteria *Micromonospora* sp. // Cat Ba Peninsula, Vietnam // Antimicrobial metabolites from a marine-derived actinomycete in Vietnam's East Sea.
154 // N // * // mod. AB activ. vs 7 strains. // *
155 // N // * // mod. AB activ. vs 7 strains. // Rel. config. not deduced

81 Actinobacteria *Pseudonocardia* sp. // S. China Sea // Pseudonocardides A–G, new γ-butyrolactones from marine-derived *Pseudonocardia* sp. YIM M13669
156 // N // pseudonocardide A // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // Abs. config. assigned by X-ray diffrac. anal.
157 // N // pseudonocardide B // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // *
158 // N // pseudonocardide C // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // *
159 // N // pseudonocardide D // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // *
160 // N // pseudonocardide E // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // *
161 // N // pseudonocardide F // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // *
162 // N // pseudonocardide G // No AB activ. vs 1 strain; no cytotox. vs 2 HTCL // *

82 Actinobacteria *Pseudonocardia* sp. // Turtle Islet, China Sea // A new curvularin glycoside and its cytotoxic and antibacterial analogues from mar. actinomycete *Pseudonocardia* sp. HS7
163 // N // curvularin-7-O-α-D-glucopyranoside // Low cytotox. vs 6 HTCL; IC_{50} range 20.8 - 81.0 µM // Abs. config. by chemical degrad. and GC anal., plus spec. rot. data compar. with congener



83 Actinobacteria *Nocardiopsis* sp. // Xieyang Is., Beihai, Guangxi province, China // α-Pyrones with diverse hydroxy substitutions from three marine-derived *Nocardiopsis* strains
164 // N // 4-deoxyphomapyrone C // Some AB activ. vs 6 strains // Abs. config. assigned by ECD
165 // N // 4-deoxy-11-methylphomapyrone C // Some AB activ. vs 6 strains // *
166 // N // 4-deoxy-11-hydroxyphomapyrone C // Some AB activ. vs 6 strains // Abs. config. assigned by ECD
167 // N // (−)-4-deoxy-8R-hydroxyphomapyrone C // Some AB activ. vs 6 strains // *
168 // N // (−)-4-deoxy-8S-hydroxyphomapyrone C // Some AB activ. vs 6 strains // *
169 // N // 4-deoxy-7-hydroxyphomapyrone C // Some AB activ. vs 6 strains // Abs. config. assigned by ECD
170 // N // 10-hydroxymucidone // Some AB activ. vs 6 strains // *
171 // N // germicidin H // Some AB activ. vs 6 strains // *
172 // N // 4-hydroxymucidone // Some AB activ. vs 6 strains // *
173 // N // 7*R*-hydroxymucidone // Some AB activ. vs 6 strains // isol. as a nonracemic enantiomeric mixt.

84 Actinobacteria *Nocardiopsis* sp. // Cô Tô, Quảng Ninh, Vietnam // Secondary metabolites from an actinomycete from Vietnam's East Sea
174 // N // * // mod AB activ. vs 7 strains; no cytotox. activ. vs 4 HTCL. // Abs. config. assigned by spec. rot. data compar. with congener
175 // M // * // No AB activ. vs 7 strains; no cytotox. activ. vs 4 HTCL. // *
176 // M // * // No AB activ. vs 7 strains; mod. cytotox. activ. vs 4 HTCL. // *

85 Actinobacteria *Williamsia* sp. // Indian Ocean // Chemical constituents and chemotaxonomic study on the marine actinomycete *Williamsia* sp. MCCC 1A11233
177 // N // * // NT // *

86 Unidentified - metagenome clone 25D7 // .S.W. Indian Ocean // Biosyn. functional gene analysis of bis-indole metabs. from clone 25D7 from a deep-sea sediment metagenomic library
178 // N // 5-bromometagenediindole B // mod. cytotox. Vs 5 HTCL; IC_{50} range 15.3–32.5 µg/mL // spec. rot. suggests racemic mixt.
179 // N // 5-bromometagenediindole C // No cytotox. Vs 5 HTCL // spec. rot. suggests racemic mixt.

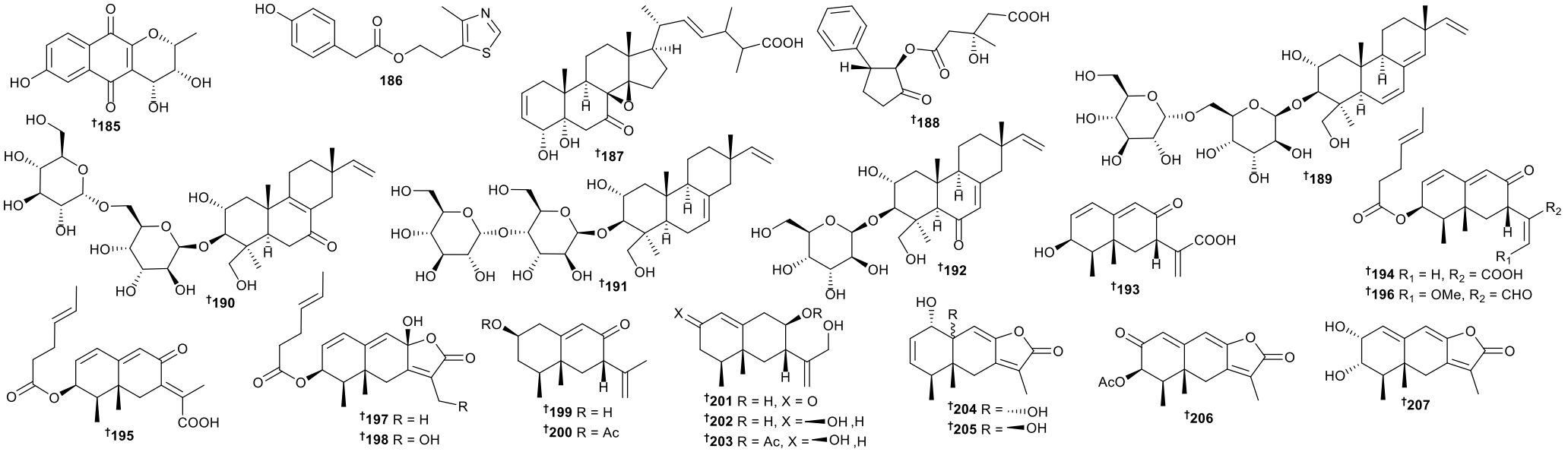
87 Actinobacteria *Actinomycetospora chlora* // * // One-pot synthesis of 5-hydroxy-4H-1,3-thiazin-4-ones: structure revision, synthesis, and NMR shift dependence of thiasporine A
180 // R // thiasporine A // * // *

88 Actinobacteria *Streptomyces xiamenensis* // * // Total synthesis and stereochemical revision of xiamenmycin A
181 // R // xiamenmycin A // * // *

89 Actinobacteria *Streptomyces xiamenensis* // * // Total synthesis of xiamenmycin C and all of its stereoisomers: stereochemical revision
182 // R // xiamenmycin C // * // *

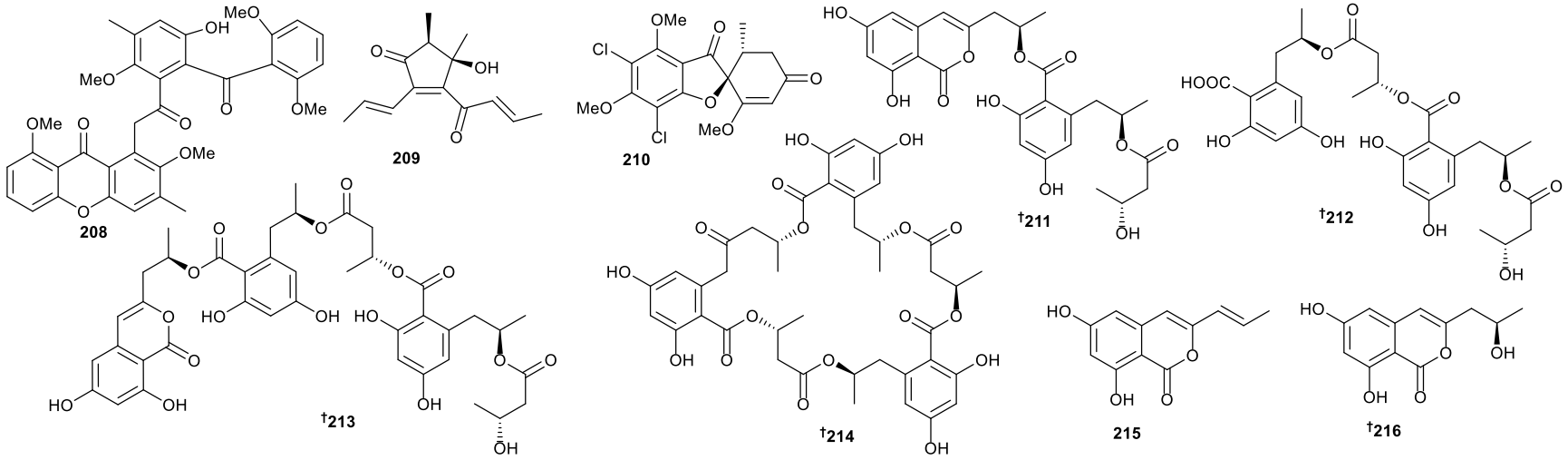
90 Actinobacteria *Streptomyces* sp. // * // A new antifungal macrolide from *Streptomyces* sp. KIB-H869 and structure revision of halichomycin
183 // R // halichomycin/oxohygrolidin // * // *

91 Actinobacteria *Streptomyces* sp. // Maroochydore, QLD, Australia // Naseseazine C, a new anti-plasmodial dimeric diketopiperazine from a marine sediment derived *Streptomyces* sp.
184 // R // naseseazine C/iso-naseseazine B // * // *

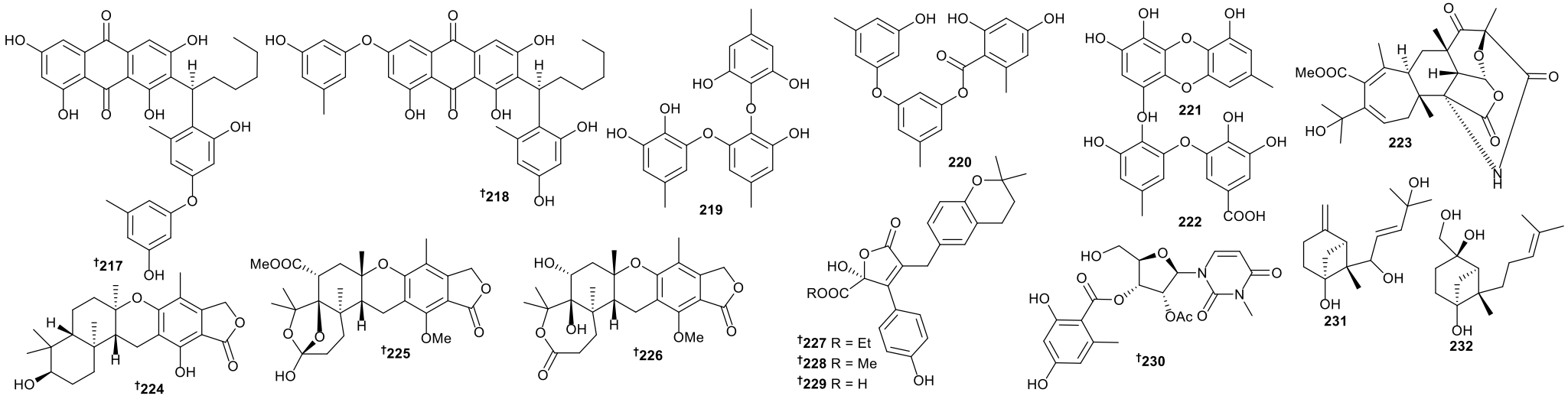


106 Basidiomycota *Acaromyces ingoldii* // (sediment) S. China Sea // Secondary metabolites from the deep-sea derived fungus *Acaromyces ingoldii* FS121
185 // N // acaromycin A // mod. activ. vs 4 HTCLs // *
186 // N // acaromyester A // IA vs 4 HTCLs // *
107 Ascomycota *Acremonium fusidioides* // (seawater) Shandong, China // Isolation and identification of two new compounds from marine-derived fungus *Acremonium fusidioides* RZ01
187 // N // * // mod. activ. vs 1 HTCL // *
188 // N // fusidione // weak activ. vs 1 HTCL // *
108 Ascomycota *Acremonium striatisporum*, *Sagenomella striatispora* // (holothurian, *Eupentacta fraudatrix*) unspecified location // Isolation and structures of virescenosides from the marine-derived fungus *Acremonium striatisporum*
189 // N // virescenoside R1 // weak non-specific esterase activ. // *
190 // N // virescenoside R2 // weak non-specific esterase activ. // *
191 // N // virescenoside R3 // weak non-specific esterase activ. // *
192 // N // virescenoside Z // * // *
109 Ascomycota *Acremonium* sp. // (sediment) S. Atlantic Ocean // Eremophilane-type sesquiterpenoids from an *Acremonium* sp. fungus isolated from deep-sea sediments
193 // N // acremeremophilane A // IA // *
194 // N // acremeremophilane B // mod. inhib. NO prod. // *
195 // N // acremeremophilane C // mod. inhib. NO prod. // *
196 // N // acremeremophilane D // mod. inhib. NO prod. // *
197 // N // acremeremophilane E // mod. inhib. NO prod. // *
198 // N // acremeremophilane F // mod. inhib. NO prod. // *
199 // N // acremeremophilane G // IA // *

200 // N // acremeremophilane H // IA // *
201 // N // acremeremophilane I // IA // *
202 // N // acremeremophilane J // IA // *
203 // N // acremeremophilane K // IA // *
204 // N // acremeremophilane L // IA // *
205 // N // acremeremophilane M // IA // *
206 // N // acremeremophilane N // mod. inhib. NO prod. // *
207 // N // acremeremophilane O // IA // *



110 Ascomycota *Acremonium* sp. // (sponge, *Suberites japonicas*) Ga-geo Is., Is. // Acredinone C and the effect of acredinones on osteoclastogenic and osteoblastogenic activ.
208 // N // acredinone C // antiosteoclastogenic activ. // *
111 Ascomycota *Alternaria brassicae* // (crinoid, *Comanthina schlegeli*), S. China Sea // A new secondary metabs. of the crinoid (*Comanthina schlegeli*) associated fungus *A. brassicae* 93
209 // N // alterbrasone // IA vs 2 HTCLs and 12 aquatic bact. // *
112 Ascomycota *Arthrinium* sp. // (gorgonian, *Anthogorgia caerulea*), S. China Sea // A new griseofulvin derivative from the marine-derived Arthrinium sp. fungus and its biological activ.
210 // M // 5-chlorogriseofulvin // mod. cytotox . vs brine shrimp // Simultaneous isoltn. in **371**
113 Ascomycota *Ascotricha* sp. // (sediment) Zhejiang, P.R. China // From macrocyclic to linear and further: naturally degradable polyesters from the fungus *Ascotricha* sp. ZJ-M-5
211 // N // ascotrichester A // mod. activ. vs 2 HTCLs // *
212 // N // ascotrichester B // mod. activ. vs 2 HTCLs // *
213 // N // ascotrichester C // mod. activ. vs 2 HTCLs, weak AB vs *B. subtilis* // *
214 // N // ascotrichalactone A // mod. activ. vs 2 HTCLs, weak AB vs *B. subtilis* // *
215 // N // orthosporinin // * // *
216 // M // (–)-orthosporin // * // *



115 Ascomycota *Aspergillus versicolor* // (sediment) S. China Sea // Antioxidative phenolic compounds from a marine-derived fungus *Aspergillus versicolor*
217 // N // aspergilol A // weak AO vs TEAC // *
218 // N // aspergilol B // weak AO vs TEAC // *
219 // N // aspergilol C // weak AO vs TEAC // *
220 // N // aspergilol D // NT // *
221 // N // aspergilol E // weak AO vs TEAC // *
222 // N // aspergilol F // weak AO vs TEAC // *

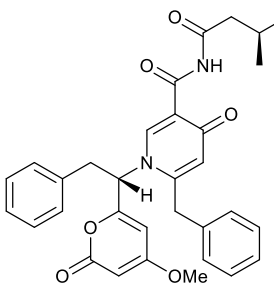
116 Ascomycota *Aspergillus* sp. // Kueishantao Is. hydrothermal vent, Taiwan // An unusual stress metabolite from a hydrothermal vent fungus *Aspergillus* sp. WU 243 induced by cobalt
223 // N // aspergstressin // NT // *

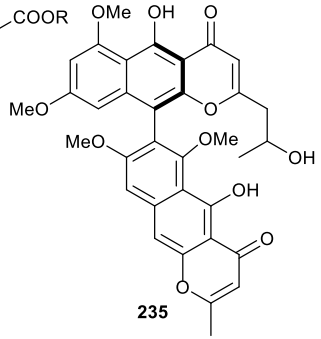
117 Ascomycota *Aspergillus aureolatus* // (unidentified sponge) Xisha Is., China // Austalides S–U, new meroterpenoids from the sponge-derived fungus *Aspergillus aureolatus* HDN14-107
224 // N // austalide S // IA // *
225 // N // austalide T // IA // *
226 // N // austalide U // potent inhib. of H1N1 // *

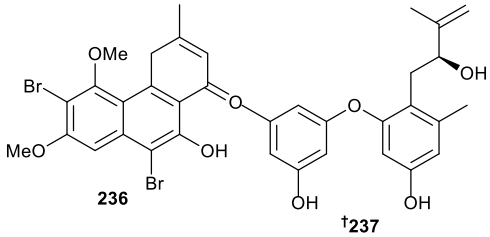
118 Ascomycota *Aspergillus flavipes* // (sediment) Lianyungang, Jiangsu Province, China // α-Glucosidase inhibitors from the marine-derived fungus *Aspergillus flavipes* HN4-13
227 // N // flavipesolide A // potent inhib. of α-glucosidase // *
228 // N // flavipesolide B // potent inhib. of α-glucosidase // *
229 // N // flavipesolide C // potent inhib. of α-glucosidase // *

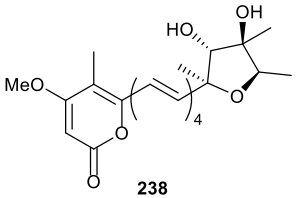
119 Ascomycota *Aspergillus flavus* // (sediment) Sakhalin Bay, Sea of Okhotsk // New kipukasin from marine isolate of the fungus *Aspergillus flavus*
230 // N // kipukasin J // IA vs 3 bact., 1 fung. // *

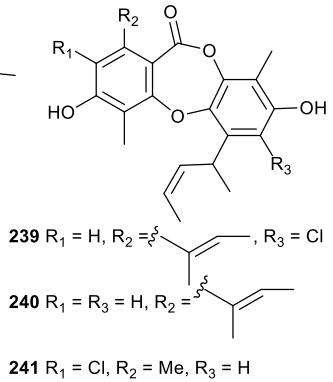
120 Ascomycota *Aspergillus fumigatus* // (sediment) Yingkou, China // Terpenoids from the marine-derived fungus *Aspergillus fumigatus* YK-7
231 // N // E-β-trans-5,8,11-trihydroxybergamot-9-ene // IA vs 2 HTCLs // *
232 // N // β-trans-2β,5,15-trihydroxybergamot-10-ene // IA vs 2 HTCLs // *

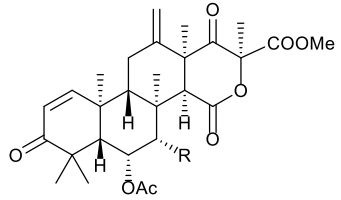












121 Ascomycota *A. niger* // (brown alga, *Sargassum* sp.) Yongxing Is., China // Aspernigrins with anti-HIV-1 activities from the marine-derived fungus *A. niger* SCSIO Jcsw6F30
233 // N // aspernigrin C // mod. inhib. HIV-1 // *
234 // N // aspernigrin D // IA // *

122 Ascomycota *A. niger* // (sediment) Huludao, Liaoning Province, China // New naphthopyrones from marine-derived fungus *A. niger* 2HL-M-8 and their in vitro antiproliferative activ.
235 // N // aurasperone H // mod. activ. vs 2 HTCLs // *

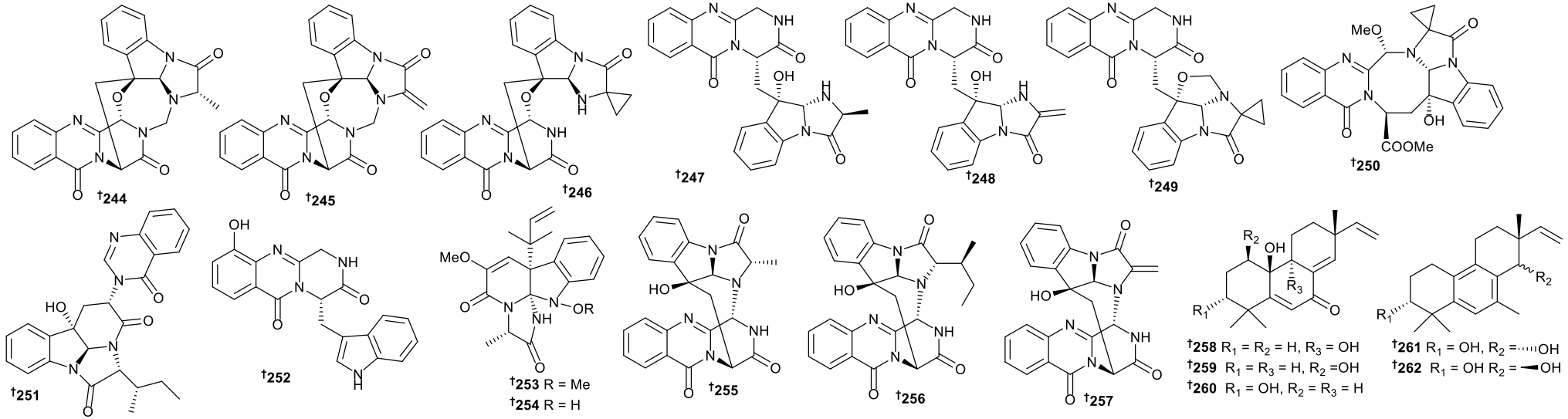
123 Ascomycota *A. niger* // (sediment) Suncheon Bay, Jeonnam Province, Korea // Induced prod. of 6,9-dibromoflavasperone, a new radical scavenging naphthopyranone in the marine-mudflat-derived fungus *A. niger*
236 // N // 6,9-dibromoflavasperone // potent radical scavenging (DPPH) // *

124 Ascomycota *Aspergillus sulphureus*, *Isaria felina*, *Beauveria felina* // (sediment) eastern Sakhalin shelf, Sea of Okhotsk // New diorcinol J produced by co-cultivation of marine fungi *Aspergillus sulphureus* and *Isaria felina*
237 // N // diorcinol J // haemolytic vs murine erythrocytes // *

125 Ascomycota *Aspergillus terreus* // Bioviotica Naturstoffe GmbH, germany // Bioprospecting chemical diversity and bioactiv. in a marine derived *Aspergillus terreus*
238 // N // 7-desmethylcitreoviridin // * // *

126 Ascomycota *Aspergillus unguis* // (sediment) Suruga Bay, Japan // 7-Chlorofolipastatin, an inhibitor of sterol *O*-acyltransferase, produced by marine-derived *Aspergillus ungui* NKH-007
239 // N // 7-chlorofolipastatin // mod. inhib. vs sterol O-acyltransferase (SOAT) // *
240 // M // folipastatin // * // *
241 // M // 2-chlorounguinol // * // *

127 Ascomycota *Aspergillus ustus* // (sediment) Sakhalin shelf, Okhotsk sea // Two new sesterterpenoids, terretonins H and I, from the marine-derived fungus *Aspergillus ustus*
242 // N // terretonin H // weak inhib. of fertilisation sea urchin eggs // *
243 // N // terretonin I // weak inhib. of fertilisation sea urchin eggs // *

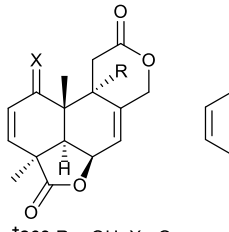


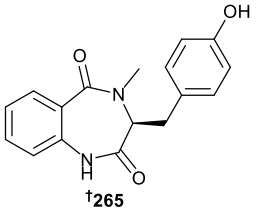
128 Ascomycota *Aspergillus versicolor* // (gorgonian, *Pseudopterogorgia* sp.) S. China Sea // Versiquinazolines A–K, fumiquinazoline-type alkaloids from the gorgonian-derived fungus *Aspergillus versicolor* LZD-14-1

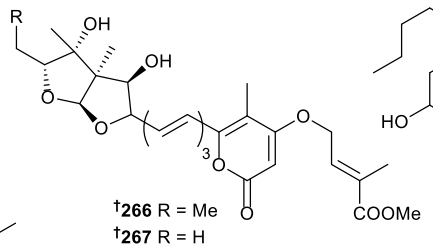
244 // N // versiquinazoline A // mod. inhib. thioredoxin reductase // *
245 // N // versiquinazoline B // mod. inhib. thioredoxin reductase // *
246 // N // versiquinazoline C // IA // *
247 // N // versiquinazoline D // IA // *
248 // N // versiquinazoline E // IA // *
249 // N // versiquinazoline F // IA // *
250 // N // versiquinazoline G // mod. inhib. thioredoxin reductase // *
251 // N // versiquinazoline H // IA // *
252 // N // versiquinazoline I // IA // *
253 // N // versiquinazoline J // IA // *
254 // N // versiquinazoline K // mod. inhib. thioredoxin reductase // *
255 // R // cottoquinazoline B // IA // *
256 // R // cottoquinazoline C // IA // *
257 // R // cottoquinazoline D // IA // *

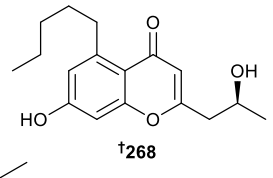
129 Ascomycota *Aspergillus wentii* // (sediment) S. China Sea // Aspewentins D–H, 20-nor-isopimarane derivatives from the deep sea sediment-derived fungus *Aspergillus wentii* SD-310

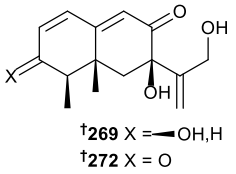
258 // N // aspewentin D // mod. inhib. vs 5 aquatic bact. // *
259 // N // aspewentin E // potent inhib. *Fusarium graminearum* // *
260 // N // aspewentin F // mod. inhib. vs 5 aquatic bact. // *
261 // N // aspewentin G // mod. inhib. vs 5 aquatic bact. // *
262 // N // aspewentin H // mod. inhib. vs 5 aquatic bact., potent inhib. *Fusarium graminearum* // *

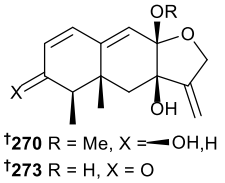


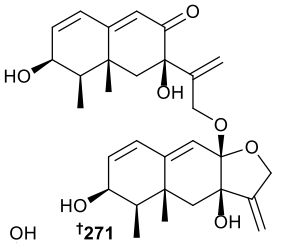


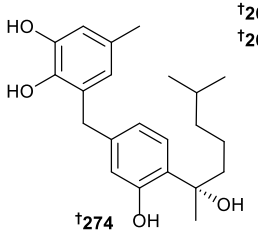


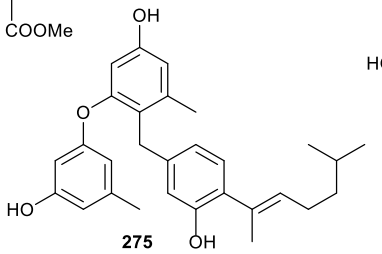


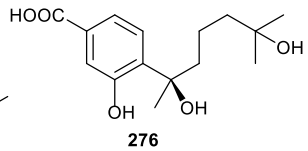


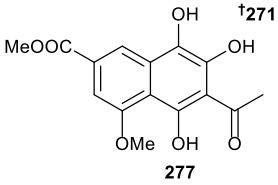












130 Ascomycota *Aspergillus wentii* SD-310 // (sediment) S. China Sea // Tetranorlabdane diterpenoids from the deep sea sediment-derived fungus *Aspergillus wentii* SD-310
263 // N // asperolide D // mod. AB vs 1 strain // *
264 // N // asperolide E // mod. cytotox. vs 3 HTCLs // *

131 Ascomycota *Aspergillus* sp. // (sediment) S. China Sea // A novel cyclic dipeptide from deep marine-derived fungus *Aspergillus* sp. SCSIOW2
265 // N // 14-hydroxy-cyclopeptine // weak inhib. NO prod. // *

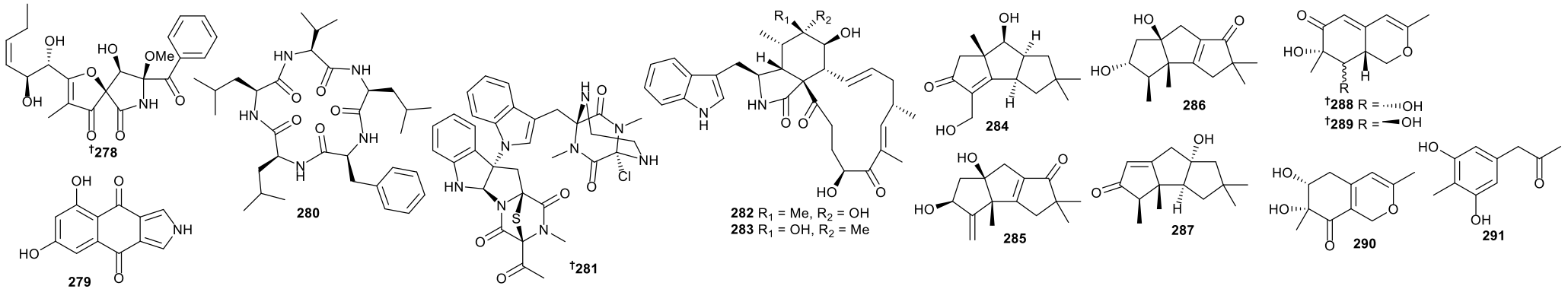
132 Ascomycota *Aspergillus* sp. // (sponge, *Callyspongia* sp.) Xuwen County, Guangdong Province, China // Asteltoxins with antiviral activities from the marine sponge-derived fungus *Aspergillus* sp. SCSIO XWS02F40
266 // N // asteltoxin E // AV vs H1N1, H3N2 // *
267 // N // asteltoxin F // AV vs H3N2 // *
268 // N // * // IA // *

133 Ascomycota *Aspergillus* sp. // (sediment) S. China Sea // Eremophilane sesquiterpenes from a deep marine-derived fungus, *Aspergillus* sp. SCSIOW2, cultivated in the presence of epigenetic modifying agents
269 // R // dihydrobipolaroxin // mod. inhib. NO prod. // *
270 // N // dihydrobipolaroxin B // mod. inhib. NO prod. // *
271 // N // dihydrobipolaroxin C // mod. inhib. NO prod. // *
272 // N // dihydrobipolaroxin D // mod. inhib. NO prod. // *
273 // N // dihydrobipolaroxin D // mod. inhib. NO prod. // *

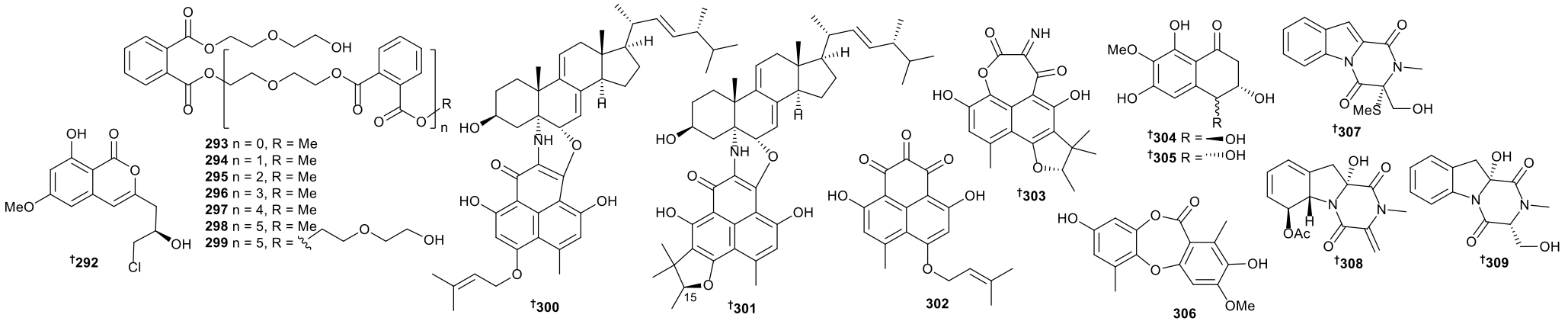
134 Ascomycota *Aspergillus* sp. // (sponge, *Chondrilla nucula*) Ayvalik, Aegean Sea // Phenolic bisabolanes from the sponge-derived fungus *Aspergillus* sp.
274 // N // asperchondol A // * // *
275 // N // asperchondol B // * // *

135 Ascomycota *Aspergillus* sp. // (gorgonian, *Dichotella gemmacea*) Xisha Islands, S. China Sea // Bisabolane-type sesquiterpenoids from a gorgonian-derived *Aspergillus* sp. fungus induced by DNA methyltransferase inhibitor
276 // M // (*R*)-(–)-hydroxysydnoic acid // * // *

136 Ascomycota *Aspergillus tubingensis* // (crab, *Portunus trituberculatus*) source not given // Bioassay-guided fractionation and identification of active substances from the fungus *Aspergillus tubingensis* against *Vibrio anguillarum*
277 // M // * // mod. inhib. vs *Vibrio anguillarum* // *



137 Ascomycota *Aspergillus fumigatus* // (fish *Mugil cephalus*) Katsuura Bay, Japan // Assignment of the CD Cotton effect to the chiral center in pseurotins, and the stereochemical revision of pseurotin A2
278 // R // pseurotin A2 // * // *
138 Ascomycota *Biscogniauxia mediterranea* // (sediment) Herodotos Basin, Mediterranean Sea // Biscogniauxone, a new isopyrrolonaphthoquinone compound from the fungus *Biscogniauxia mediterranea* isolated from deep-sea sediments
279 // N // biscogniauxone // weak inhib. GSK 3β // *
280 // M // sansalvamide A amide // weak inhib. AchE // *
139 Ascomycota *Chaetomium cristatum* // (sediment) Suncheon Bay, Korea // Cristazine, a new cytotoxic dioxopiperazine alkaloid from the mudflat-sediment-derived fungus *Chaetomium cristatum*
281 // N // cristazine // potent cytotox. vs 1 HTCL, potent radical scavenging (DPPH) // *
140 Ascomycota *Chaetomium globosum* // (sediment) Indian Ocean // Cytoglobosins H and I, new antiproliferative cytochalasans from deep-sea-derived fungus *Chaetomium globosum*
282 // N // cytoglobosin G // IA vs 3 HTCLs (> 10 mM) // *
283 // N // cytoglobosin H // IA vs 3 HTCLs (> 10 mM) // *
141 Basidiomycota *Chondrostereum* sp. // (soft coral, *Sarcophyton tortuosum*) Hainan Sanya National Coral Reef Reserve, China // Additional new cytotoxic triquinane-type sesquiterpenoids chondrosterins K–M from the marine fungus *Chondrostereum* sp.
284 // N // chondrosterin K // weak cytotox. vs 3 HTCLs // *
285 // N // chondrosterin L // weak cytotox. vs 3 HTCLs // *
286 // N // chondrosterin M // weak cytotox. vs 3 HTCLs // *
287 // M // anhydroarthrosporone // IA vs 3 HTCLs // *
142 Ascomycota *Cladosporium perangustum* // (sediment) S. China Sea // Perangustols A and B, a pair of new azaphilone epimers from a marine sediment-derived fungus *Cladosporium perangustum* FS62
288 // N // perangustol A // IA vs 4 HTCLs // *
289 // N // perangustol B // IA vs 4 HTCLs // *
290 // M // * // IA vs 4 HTCLs // *
291 // M // * // IA vs 4 HTCLs // *



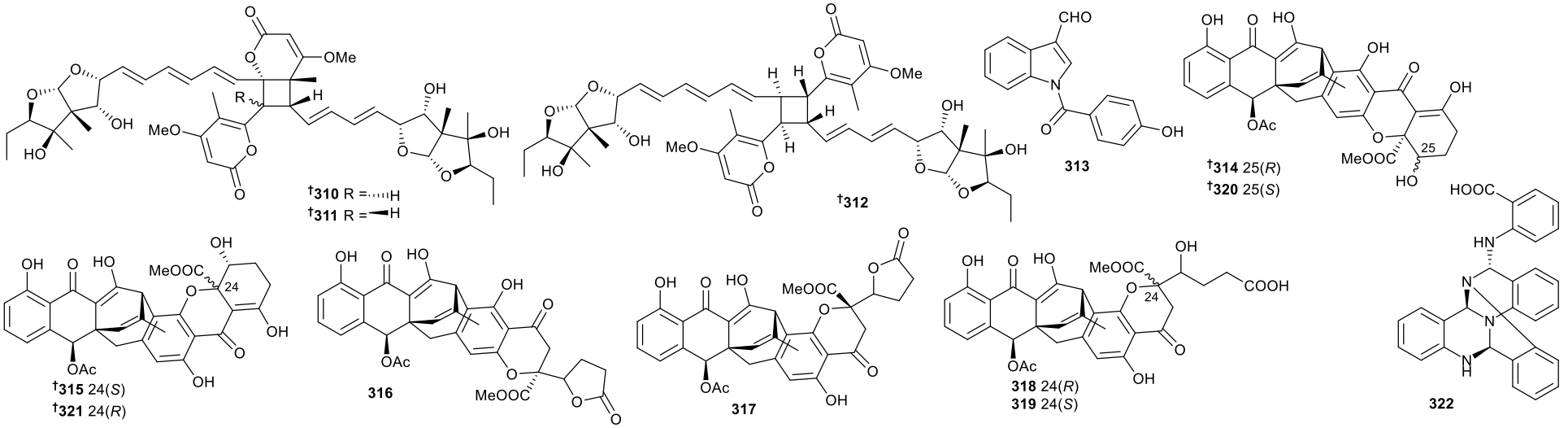
143 Ascomycota *Clonostachys* sp. // (sponge, *Axinella polypoides*) Ilyosta-Ayvalik, Bahkesir, Turkey // New chromone, isocoumarin, and indole alkaloid derivatives from three sponge-derived fungal strains
292 // N // * // IA vs murine cell line // *

144 Ascomycota *Cochliobolus lunatus*, *Curvularia lunata* // (sea anemone, *Palythoa haddoni*) Weizhou coral reef, S. China Sea // DNA methyltransferase inhibitor induced fungal biosynthetic products: diethylene glycol phthalate ester oligomers from the marine-derived fungus *Cochliobolus lunatus*
293 // N // cochphthester A // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *
294 // N // cochphthester B // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *
295 // N // cochphthester C // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *
296 // N // cochphthester D // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *
297 // N // cochphthester E // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *
298 // N // cochphthester F // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *
299 // N // cochphthester G // IA vs 5 HTCLs, 10 bact. strains, 2 viruses and barnacle larvae // *

145 Ascomycota *Coniothyrium cerealis* // (green alga, *Enteromorpha* sp.) Fehmarn, Baltic Sea // Unusual nitrogenous phenalenone derivatives from the marine-derived fungus *C. cereale*
300 // N // conio-azasterol // * // *
301 // M // S-dehydroazasirosterol // * // *
302 // N // * // * // *
303 // N // * // weak-mod. cytotox. vs 3 HTCLs // *

146 Ascomycota *Corynespora cassiicola* // (unidentified spomge) Xisha Is., China Sea // Naphthalenones and depsidones from a sponge-derived strain of the fungus *Corynespora cassiicola*
304 // N // corynenone A // IA vs 4 HTCLs and barnacle larvae // *
305 // N // corynenone B // IA vs 4 HTCLs and barnacle larvae // *
306 // N // corynesidone E // IA vs 4 HTCLs and barnacle larvae // *

147 Ascomycota *Dichotomomyces cejpii*, *Aspergillus cejpii* // (sediment) S. China Sea // Dichotocejpins A–C: new diketopiperazines from a deep-sea-derived fungus *Dichotomomyces cejpii* FS110
307 // N // dichotocejpin A // strong α-glucosidase inhib., weak cytotox. vs 3 HTCLs // *
308 // N // dichotocejpin B // IA // *
309 // N // dichotocejpin C // IA // *

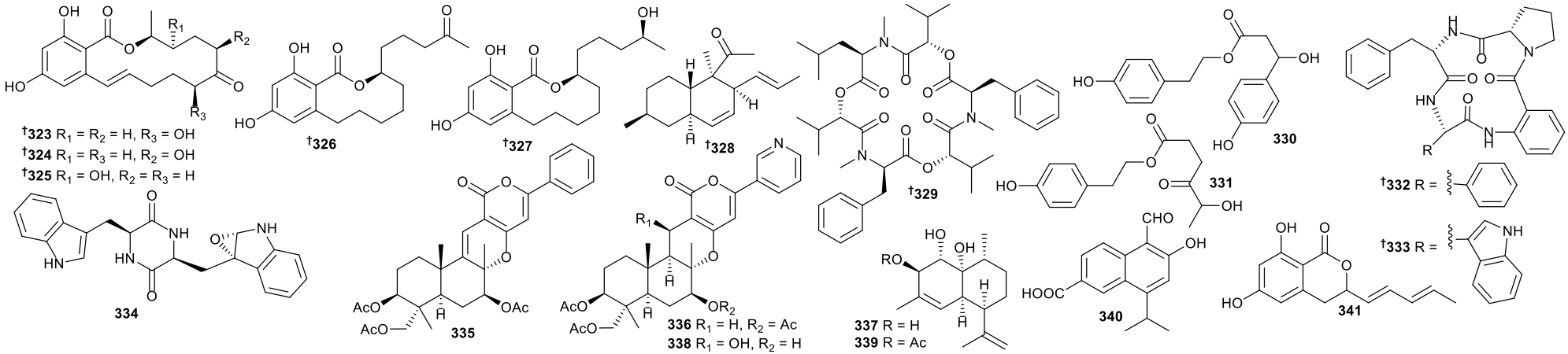


148 Ascomycota *Emericella variecolor*, *Aspergillus stellatus* // (DES mutated strain ex sponge, *Cinachyrella* sp.)Yongxing Is., S. China Sea // Diasteltoxins A–C, asteltoxin-based dimers from a mutant of the sponge-associated *Emericella variecolor* fungus
310 // N // diasteltoxin A // potent thioredoxin reductase inhib., weak cytotox. vs 2 HTCLs // *
311 // N // diasteltoxin B // potent thioredoxin reductase inhib., weak cytotox. vs 2 HTCLs // *
312 // N // diasteltoxin C // potent thioredoxin reductase inhib., weak cytotox. vs 2 HTCLs // *

143 Ascomycota *Engydontium album* // (sponge, *Ircinia variabilis*) Ilyosta-Ayvalik, Bahkesir, Turkey // New chromone, isocoumarin, and indole alkaloid derivatives from three sponge-derived fungal strains
313 // N // * // IA vs 8 bact. strains // *

149 Ascomycota *Engyodontium album* // (sponge, *Cacospongia scalaris*) Limski Fjord, Croatia // Engyodontochones, antibiotic polyketides from the marine fungus *Engyodontium album* strain LF069
314 // N // engyodontochone A // broad spectrum activ. mod.-strong vs 3 bact., mod. vs 2 fungi, weak vs 1 HTCL // *
315 // N // engyodontochone B // broad spectrum activ. mod.-strong vs 3 bact., mod. vs 2 fungi, weak vs 1 HTCL // *
316 // N // engyodontochone C // weak activ. vs 2 bact. strains // *
317 // N // engyodontochone D // weak activ. vs 2 bact. strains // *
318 // N // engyodontochone E // weak activ. vs 2 bact. strains // *
319 // N // engyodontochone F // weak activ. vs 2 bact. strains // *
320 // R // JBIR-97/98 // broad spectrum activ. mod.-strong vs 3 bact., mod. vs 2 fungi, weak vs 1 HTCL // *
321 // R // JBIR-99 // broad spectrum activ. mod.-strong vs 3 bact., mod. vs 2 fungi, weak vs 1 HTCL // *

150 Ascomycota *Fusarium oxysporum* // (sediment) Suncheon Bay, Korea // Oxysporizoline, an antibacterial polycyclic quinazoline alkaloid from the marine-mudflat-derived fungus *Fusarium oxysporum*
322 // N // oxysporizoline // mod. radical scavenging (DPPH), weak activ. vs 2 bact. strains // *



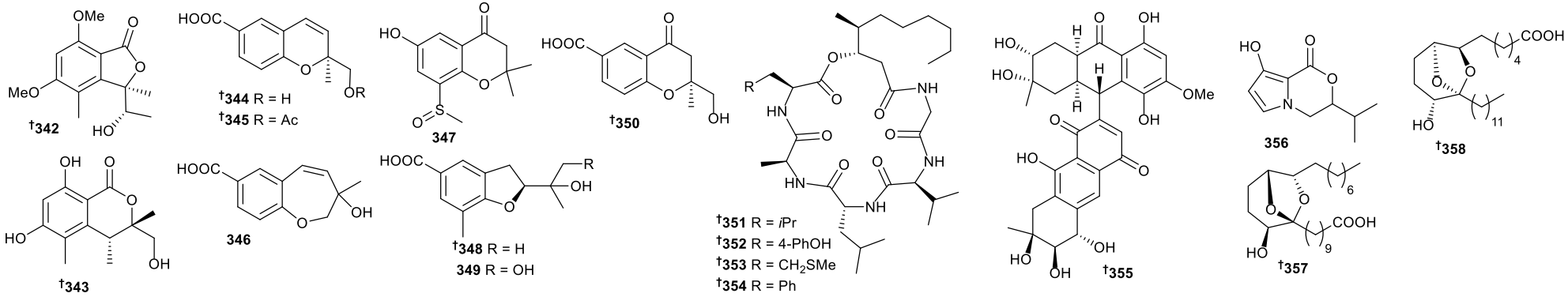
151 Ascomycota *Fusarium* sp. // (seagrass, *Enhalus acoroides*) Thailand // β-Resorcylic macrolide & octahydronaphthalene derivs. from a seagrass-derived fungus *Fusarium* sp. PSU-ES123
323 // N // 5′β-hydroxyzearalenone // weak AF activ. // *
324 // N // 7'β-hydroxyzearalenone // NT // *
325 // N // 9′α-hydroxyzearalenone // NT // *
326 // N // 10′-oxorelgro // NT // *
327 // R // relgro // NT // *
328 // N // fusahydronaphthalene // NT // *

152 Ascomycota *Fusarium* sp. // (sediment) Bohai Sea // Beauvericin K, a new antifungal beauvericin analogue from a marine-derived *Fusarium* sp.
329 // N // beauvericin K // mod. activ. vs *Candida* // *

153 Ascomycota *Hypocrea koningii*, *Trichoderma koningii* // (sponge, *Phakellia fusca*) Yongxing Is., China // Hypocrol A, a new tyrosol derivative from a sponge-derived fungus *H. koningii*
330 // N // hypocrol A // mod. radical scavenging (DPPH) // *
331 // M // trichodenol B // mod. radical scavenging (DPPH) // *

154 Ascomycota *Neosartorya glabra*, *Aspergillus fischeri* // (sponge, *Mycale* sp.) Samaesarn Is., Chonburi Province, Thailand // New cyclotetrapeptides and a new diketopiperzine derivative from the marine sponge-associated fungus *Neosartorya glabra* KUFA 0702
332 // N // sartoryglabramide A // NT // *
333 // N // sartoryglabramide B // NT // *
334 // N // fellutanine A epoxide // NT // *

155 Ascomycota *Neosartorya pseudofischeri* // (starfish, *Acanthaster planci*) Hainan Sanya National Coral Reef Reserve, China // Five new cytotoxic metabolites from the marine fungus *Neosartorya pseudofischeri*
335 // N // 5-olefin phenylpyropene A // cytotox. vs pest insect cell line // *
336 // N // 13-dehydroxylpyripyropene A // cytotox. vs pest insect cell line // *
337 // N // deacetylsesquiterpene // cytotox. vs pest insect cell line // *
338 // M // 7-deacetylpyripyropene A // cytotox. vs pest insect cell line // *
339 // M // * // cytotox. vs pest insect cell line // *
340 // N // * // cytotox. vs pest insect cell line // *
341 // N // * // cytotox. vs pest insect cell line // *



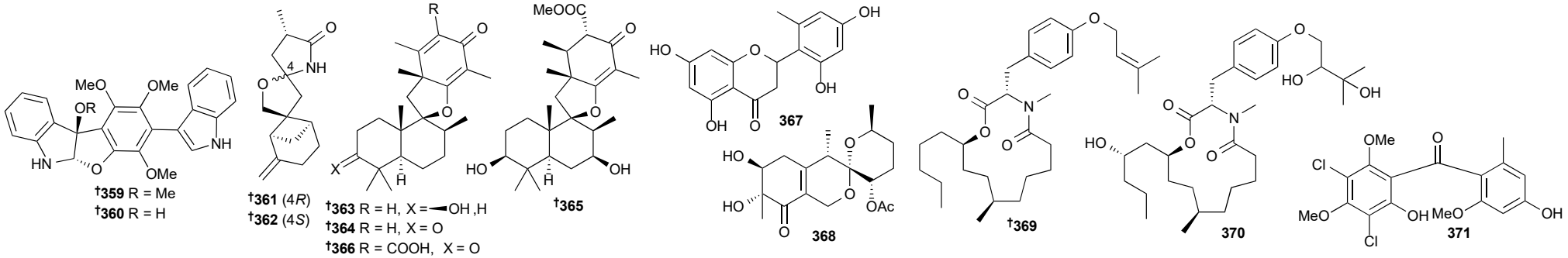
156 Ascomycota *Neosartorya quadricincta*, *Aspergillus quadricinctus* // (sponge, *Clathria reinwardti*) Samae San Is., Chonburi Province, Thailand // New polyketides and new benzoic acid derivatives from the marine sponge-associated fungus *Neosartorya quadricincta* KUFA 0081
342 // N // quadricinctone A // IA vs bact., fung. and HTCLs // *
343 // N // quadricinctone C // IA vs bact., fung. and HTCLs // *
344 // N // quadricinctapyran A // IA vs bact., fung. and HTCLs // *
345 // N // quadricinctapyran B // IA vs bact., fung. and HTCLs // *
346 // N // quadricinctoxepine // IA vs bact., fung. and HTCLs // *
347 // N // quadricinctone B // IA vs bact., fung. and HTCLs // *
348 // N // quadricinctafuran A // IA vs bact., fung. and HTCLs // *
349 // N // quadricinctafuran B // IA vs bact., fung. and HTCLs // *
350 // N // quadricinctone D // IA vs bact., fung. and HTCLs // *

157 Ascomycota *Nigrospora oryzae*, *Khuskia oryzae* // (sponge *Phakellia fusca*) Yongxing Is., China // Oryzamides A–E, cyclodepsipeptides from the sponge-derived fungus *Nigrospora oryzae* PF18
351 // N // oryzamide A // IA vs 1 HTCL, 1 parasite and 3 bact. strains. // *
352 // N // oryzamide B // IA vs 1 HTCL, 1 parasite and 3 bact. strains. // *
353 // N // oryzamide C // IA vs 1 HTCL, 1 parasite and 3 bact. strains. // *
354 // R // scopularide A // NT // *

158 Ascomycota *Nigrospora* sp. // (zoanthid, *Palythoa haddoni*) Weizhou coral reef // Nigrodiquinone A, a hydroanthraquinone dimer containing a rare C-9–C-7′ linkage from a zoanthid-derived *Nigrospora* sp. fungus
355 // N // nigrodiquinone A // IA vs 2 viruses and 9 bact. strains // *

159 Ascomycota *Paecilomyces formosa* // (sediment) Suncheon Bay, Korea // Formoxazine, a new pyrrolooxazine, and two amines from the marine-mudflat-derived fungus *Paecilomyces formosus*
356 // N // formoxazine // potent radical scavenging (DPPH) // *

160 Ascomycota *Paecilomyces variotii*, *P. divaricata* // (jellyfish, *Nemopilema nomurai*) S. coast of Korea // Paecilonic acids A and B, bicyclic fatty acids from the jellyfish-derived fungus *Paecilomyces variotii* J08NF-1
357 // N // paecilonic acid A // NT // *
358 // N // paecilonic acid B // NT // *



161 Ascomycota *Paecilomyces variotii, P. divaricatus* // (red alga, *Grateloupia turuturu*) Qingdao, P. R. China // Varioloid A, a new indolyl-6,10b-dihydro-5aH-[1]benzofuro[2,3-b]indole derivative from the marine alga-derived endophytic fungus *Paecilomyces variotii* EN-291
359 // N // varioloid A // mod. cytotox. vs 3 HTCLs // *
360 // R // varioloid B // mod. cytotox. vs 3 HTCLs // *

162 Ascomycota *Paraconiothyrium sporulosum*, *Paraphaeosphaeria sporulosa* // (sediment) Bohai River, Liaoning Province, China // Sporulaminals A and B: a pair of unusual epimeric spiroaminal derivatives from a marine-derived fungus *Paraconiothyrium sporulosum* YK-03
361 // N // sporulaminal A // NT // *
362 // N // sporulaminal B // NT // *

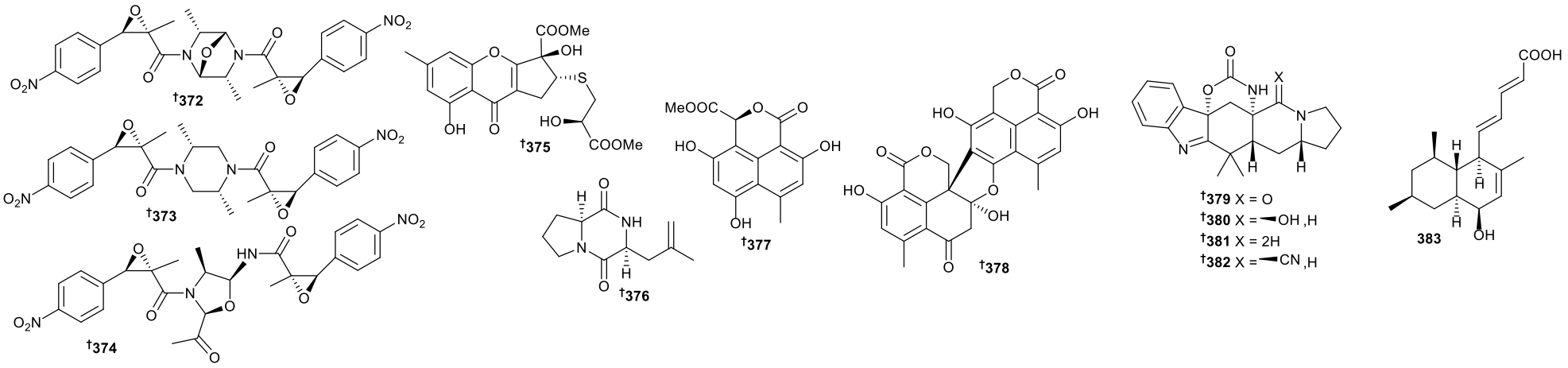
163 Ascomycota *Penicillium chermesinum* // (red alga, *Pterocladiella tenuis*) Rongcheng, Shandong Province, P. R. China // Chermesins A–D: meroterpenoids with a drimane-type spirosesquiterpene skeleton from the marine algal-derived endophytic fungus *Penicillium chermesinum* EN-480
363 // N // chermesin A // mod. AB vs 4 strains // *
364 // N // chermesin B // mod. AB vs 4 strains // *
365 // N // chermesin C // IA // *
366 // N // chermesin D // weak AB vs 1 strain // *

164 Ascomycota *Penicillium chrysogenum* // (gorgonian, *Carijoa* sp.) Weizhou coral reef // Penimethavone A, a flavone from a gorgonian-derived fungus *Penicillium chrysogenum*
367 // N // penimethavone A // mod. but selective activ. vs 2 HTCLs // *

165 Ascomycota *Penicillium lividum* // (brown alga, *Sargassum miyabei*) Lazurnaya Bay, Russia // New 6,6-spiroketal from the alga-derived fungus *Penicillium lividum*
368 // N // sargassopenilline H // IA vs 2 HTCLs // *

166 Ascomycota *Penicillium meleagrinum* // (unidentified alga) Shizuoka-shi,Shizuoka Prefecture, Japan // Macrolides from a marine-derived fungus, *Penicillium meleagrinum* var. *viridiflavum*, showing synergistic effects with fluconazole against azole-resistant *C. albicans*
369 // N // melearoride A // synergistic activ. with fluconazole vs *C. albicans* // *
370 // N // melearoride B // synergistic activ. with fluconazole vs *C. albicans* // *

114 Ascomycota *Penicillium canescens* // unspecified fungal culture collection // Automated detection of natural halogenated compounds from LC-MS profiles–application to the isolation of bioactive chlorinated compounds from marine-derived fungi
210 // M // (+)-5-chlorogriseofulvin // NT // simultaneous isoltn in **210**
371 // N // griseophenone I // NT // *



167 Ascomycota *Penicillium chrysogenum* // (sediment) Indian Ocean // Chrysamides A–C, three dimeric nitrophenyl trans-epoxyamides produced by the deep-sea-derived fungus *Penicillium chrysogenum* SCSIO41001
372 // N // chrysamide A // IA // *
373 // N // chrysamide B // IA // *
374 // N // chrysamide C // AI via suppression of interleukin-17 prod. // *

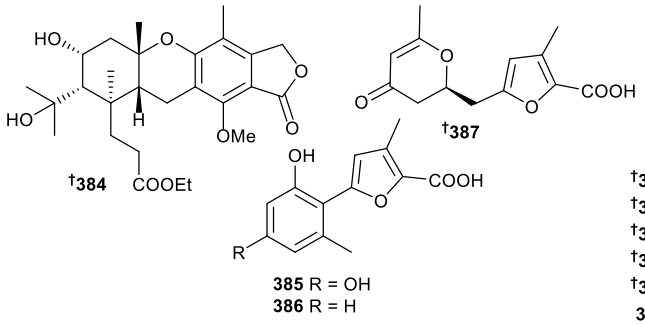
168 Ascomycota *Penicillium purpurogenum* // (neomycin mutated strain ex sediment) Lüjühe, Tanggu district, Tianjin, China // Chromosulfine, a novel cyclopentachromone sulfide produced by a marine-derived fungus after introduction of neomycin resistance
375 // N // chromosulfine // weak cytotox. vs 5 HTCLs //

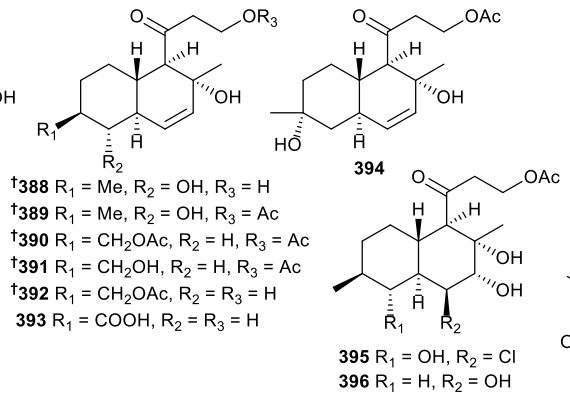
169 Ascomycota *Penicillium purpurogenum* // (neomycin mutated strain ex sediment) Lujuhe, Tanggu, Tanjin, China // A new cyclic dipeptide penicimutide: the activated prod. of cyclic dipeptides by introduction of neomycin-resistance in the marine-derived fungus *Penicillium purpurogenum* G59
376 // N // penicimutide // mod. but selective cytotox. vs 1 HTCL // *

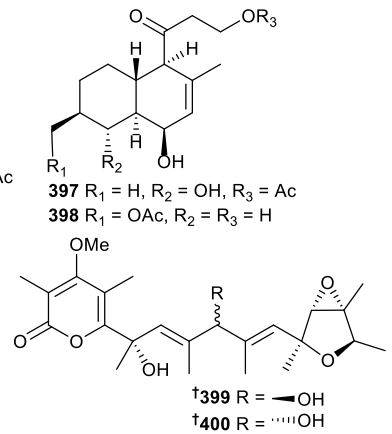
170 Ascomycota *Penicillium purpurogenum* // (DES mutated strain ex sediment) Bohai Bay, Lüjühe, Tianjin, China // A novel oxaphenalenone, penicimutalidine: activated prod. of oxaphenalenones by the diethyl sulphate mutagenesis of marine-derived fungus *Penicillium purpurogenum* G59
377 // N // penicimutalidine // weak cytotox. vs 4 HTCLs // *
378 // N // bacillosporin C // * // *

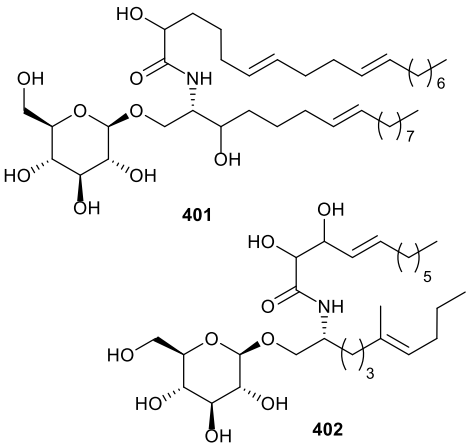
171 Ascomycota *Penicillium purpurogenum* // (DES mutated strain ex sediment) Lüjühe, Tanggu district, Tianjin, China // Penicimutamides A–C: rare carbamate-containing alkaloids from a mutant of the marine-derived *Penicillium purpurogenum* G59
379 // N // penicimutamide A // IA // *
380 // N // penicimutamide B // weak cytotox. vs 4 HTCLs // *
381 // N // penicimutamide C // IA // *
382 // R // aspeverin // IA // *

172 Ascomycota *Penicillium steckii*, *P. citrinum* // (unspecified sponge) Wangdolcho, Korea // Anti-inflammatory activ. of tanzawaic acid derivatives from a marine-derived fungus *Penicillium steckii* 108YD142
383 // N // tanzawaic acid Q // AI via suppression NO prod. // *







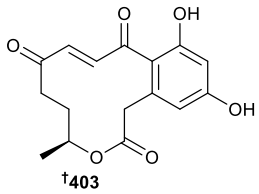


173 Ascomycota *Penicillium thomii*, *P. lividum* // (brown alga, *Sargassum miyabei*) Lazurnaya Bay, Russia // New metabolites from the alga-derived fungi *Penicillium thomii* Maire and *P. lividum* Westling
- **384** // N // austalide H acid ethyl ester // inhib. endo-1,3-β-D-glucanase // *
- **385** // N // * // IA // *
- **386** // N // * // IA // *
- **387** // N // * // NT // *

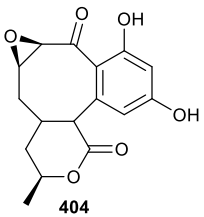
174 Ascomycota *Penicillium thomii* // (brown alga, *Sargassum pallidum*) Novik Bay, Russky Is., Russia // Pallidopenillines: polyketides from the alga-derived fungus *Penicillium thomii* Maire KMM 4675
- **388** // N // pallidopenilline A // IA // *
- **389** // N // 1-acetylpallidopenilline A // growth inhib. vs 1 HTCL // *
- **390** // N // pallidopenilline B // IA // *
- **391** // N // 15-deacetylpallidopenilline B // down regulation of ROS prod. in macrophages // *
- **392** // N // 1-deacetylpallidopenilline B // IA // *
- **393** // N // pallidopenilline C // IA // *
- **394** // N // pallidopenilline D // IA // *
- **395** // N // pallidopenilline E // down regulation of ROS prod. in macrophages // *
- **396** // N // pallidopenilline F // IA // *
- **397** // N // pallidopenilline G // down regulation of ROS prod. in macrophages // *
- **398** // N // pallidopenilline H // IA // *

175 Ascomycota *Penicillium* sp. // Oshika Peninsula, Miyagi Prefecture, Japan // Penicyrones A and B, an epimeric pair of α-pyrone-type polyketides produced by the marine-derived *Penicillium* sp.
- **399** // N // penicyrone A // * // *
- **400** // N // penicyrone B // * // *

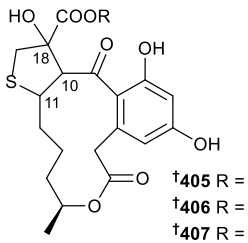
176 Ascomycota *Pencillium* sp. // (ascidian, *Didemnum* sp.) Sharm El-Sheikh, Egypt // Penicillosides A and B: new cerebrosides from the marine-derived fungus *Penicillium* species
- **401** // N // penicilloside A // activ. vs 1 fung. strain // *
- **402** // N // penicilloside B // activ. vs 2 bact. strains // *



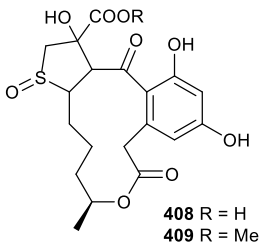
†**403**



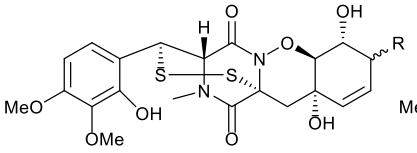
404



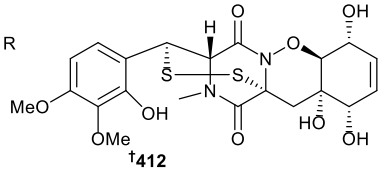
†**405** R = H, (10*R*,11*R*,18*S*)
†**406** R = H, (10*S*,11*S*,18*R*)
†**407** R = Me, (10*S*,11*S*,18*R*)



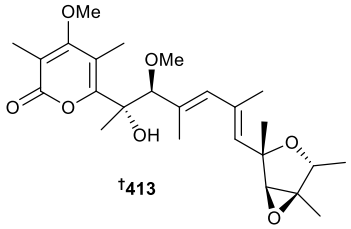
408 R = H
409 R = Me



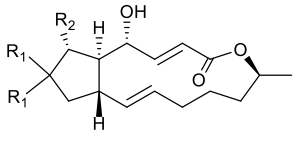
†**410** R = ····OH
†**411** R = ▬OH



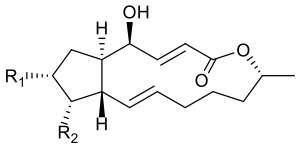
†**412**



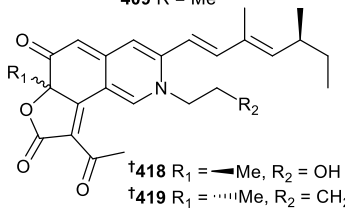
†**413**



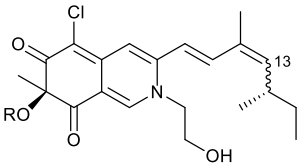
414 R_1 = OMe, R_2 = H
415 R_1 = H, R_2 = OH



416 R_1 = OH, R_2 = H
417 R_1 = H, R_2 = OH



†**418** R_1 = ▬Me, R_2 = OH
†**419** R_1 = ····Me, R_2 = CH_2COOH



†**420** (13*Z*), R = Ac
†**421** (13*E*), R = Me

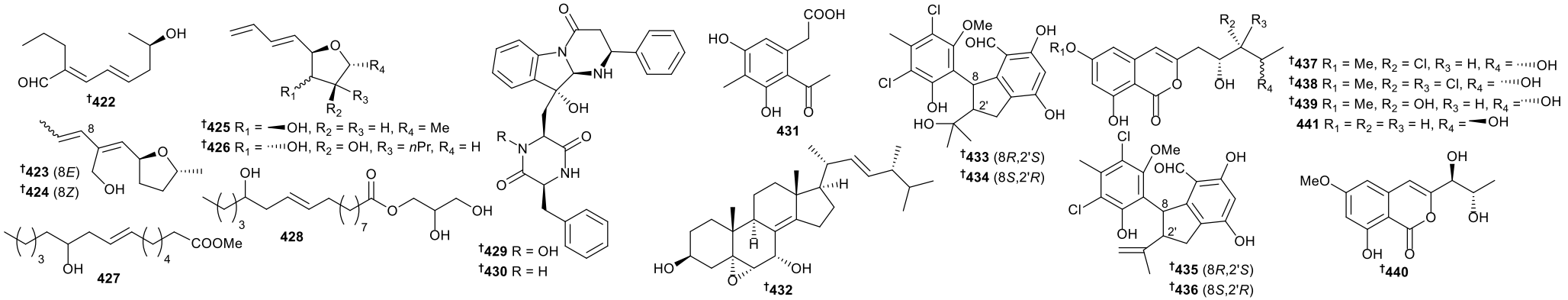
178 Ascomycota *Penicillium* sp. // (sponge, *Dragmacidon reticulatum*) São Sebastião, SP, Brazil // Condensation of macrocyclic polyketides produced by *Penicillium* sp. DRF2 with mercaptopyruvate represents a new fungal detoxification pathway
403 // N // 12-keto10,11-dehydrocurvularin // IA vs 3 HTCLs // *
404 // N // *cis*-10,11-epoxycurvularin // IA vs 3 HTCLs // *
405 // N // cyclothiocurvularin A // NT // *
406 // N // cyclothiocurvularin B // IA vs 3 HTCLs // *
407 // N // cyclothiocurvularin methyl ester // IA vs 3 HTCLs // *
408 // N // cyclosulfoxicurvularin // NT // *
409 // N // cyclosulfoxicurvularin methyl ester // NT // *

179 Ascomycota *Penicillium* sp. // (brown alga, *Padina* sp.) Vietnam, S. China Sea // Pretrichodermamides D–F from a marine algicolous fungus *Penicillium* sp. KMM 4672
410 // N // pretrichodermamide D // IA vs 1 HTCL and 1 mammalian cell line // *
411 // N // pretrichodermamide E // IA vs 1 HTCL and 1 mammalian cell line // *
412 // N // pretrichodermamide F // IA vs 1 HTCL and 1 mammalian cell line // *

180 Ascomycota *Penicillium* sp. // (sediment) Kueishantao, Taiwan // An unusual conformational isomer of verrucosidin backbone from a hydrothermal vent fungus, *Penicillium* sp. Y-50-10
413 // N // methyl isoverrucosidinol // weak AB vs 1 strain // *

181 Ascomycota *Penicillium* sp. // (sediment) Dongtou County, Zhejiang province, China // New analogues of brefeldin A from sediment-derived fungus *Penicillium* sp. DT-F29
414 // N // 7,7-dimethoxybrefeldin C // IA vs 1 virus // *
415 // N // 6α-hydroxybrefeldin C // IA vs 1 virus // *
416 // N // 4-epi-15-epi-brefeldin A // IA vs 1 virus // *
417 // N // 4-epi-8α-hydroxy-15-epi-brefeldin C // IA vs 1 virus // *

182 Ascomycota *Penicillium* sp. ZJ-27 // (unspec. alga) Zhanjiang Mangrove Nature Reserve, Guangdong, P.R. China // Azaphilones isol. from an alga-derived fungus *Penicillium* sp. ZJ-27
418 // N // peniazaphilone A // IA vs 2 HTCLS and 12 bact. strains // *
419 // N // peniazaphilone B // IA vs 2 HTCLS and 12 bact. strains // *
420 // N // peniazaphilone C // IA vs 2 HTCLS and 12 bact. strains // *
421 // N // peniazaphilone D // IA vs 2 HTCLS and 12 bact. strains // *



183 Ascomycota *Penicillium* sp. SCS-KFD08 // (worm, *Sipunculus nudus*) Haikou Bay, P.R. China // Penicillars A–E from the marine animal endogenic fungus *Penicillium* sp. SCS-KFD08
422 // N // penicillar A // IA vs AchE // *
423 // N // penicillar B // IA vs AchE // *
424 // N // penicillar C // IA vs AchE // *
425 // N // penicillar D // IA vs AchE // *
426 // N // penicillar E // IA vs AchE // *

184 Ascomycota *Penicillium* sp. // (ascidian, *Didemnum* sp.) // Penicilloitins A and B, new antimicrobial fatty acid esters from a marine endophytic *Penicillium* species
427 // N // penicilloitin A // * // *
428 // N // penicilloitin B // * // *

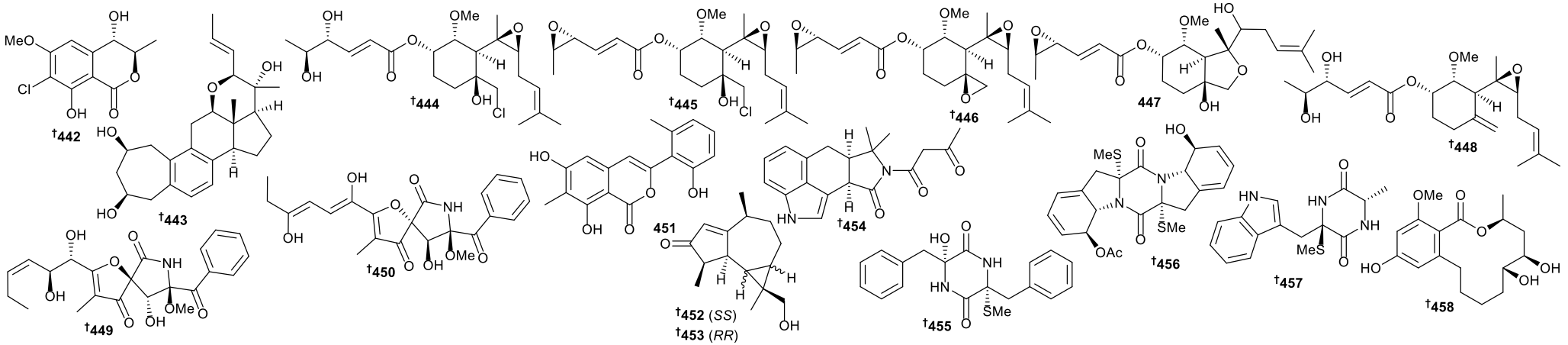
185 Ascomycota *Penicillium citrinum* // * // Structure revision of the *Penicillium* alkaloids haenamindole and citreoindole
429 // R // haenamindole // * // *
430 // R // citreoindole // * // *

186 Ascomycota *Penicillium citrinum* // (brown alga, Padina sp.) Vietnam, S. China Sea // Metabolites of the marine fungus *Penicillium citrinum* associated with a brown alga *Padina* sp.
431 // M // 6-methlycurvulinic acid // * // *

187 Ascomycota *Penicillium* sp. // * // Structure revision of (22E)-24-methylcholesta-8(14),22-diene-3β,5α,6β,7α-tetraol from the marine-derived fungus *Penicillium* sp.
432 // R // * // * // *

188 Ascomycota *Pestalotiopsis* sp. // (soft coral, *Sarcophyton* sp.) Yongxing Is., China Sea // Isoln., resolution and biol. evaluation of pestalachlorides E and F with point and axial chirality
433 // N // (+)-pestalachloride E // potent antifoul. vs barnacle larvae (as racemic mixt) // *
434 // N // (–)-pestalachloride E // potent antifoul. vs barnacle larvae (as racemic mixt) // *
435 // N // (+)-pestalachloride F // potent antifoul. vs barnacle larvae (as racemic mixt) // *
436 // N // (–)-pestalachloride F // potent antifoul. vs barnacle larvae (as racemic mixt) // *

189 Ascomycota *Peyronellaea glomerata*, *Phoma glomerata* // (sponge, *Amphimedon* sp.) Yongxin Is., Hainan Province, China // Isocoumarin derivatives from the sponge-associated fungus *Peyronellaea glomerata* with AO activities
437 // N // peyroisocoumarin A // potent AO activ. (AO response element (ARE) reporter assay) // *
438 // N // peyroisocoumarin B // potent AO activ. (AO response element (ARE) reporter assay) // *
439 // N // peyroisocoumarin C // IA // *
440 // N // peyroisocoumarin D // potent AO activ. (AO response element (ARE) reporter assay) // *
441 // N // isocitreoisocoumarinol // IA // *



190 Ascomycota *Phoma* sp. // (sponge, *Ectyyplasia perox*), Lauro Club Reef, Dominica // Isocoumarin derivatives from the marine-derived fungus *Phoma* sp. 135
442 // N // (3R,4S)-4-hydroxy-6-methoxy7-chloromellein // NT // *

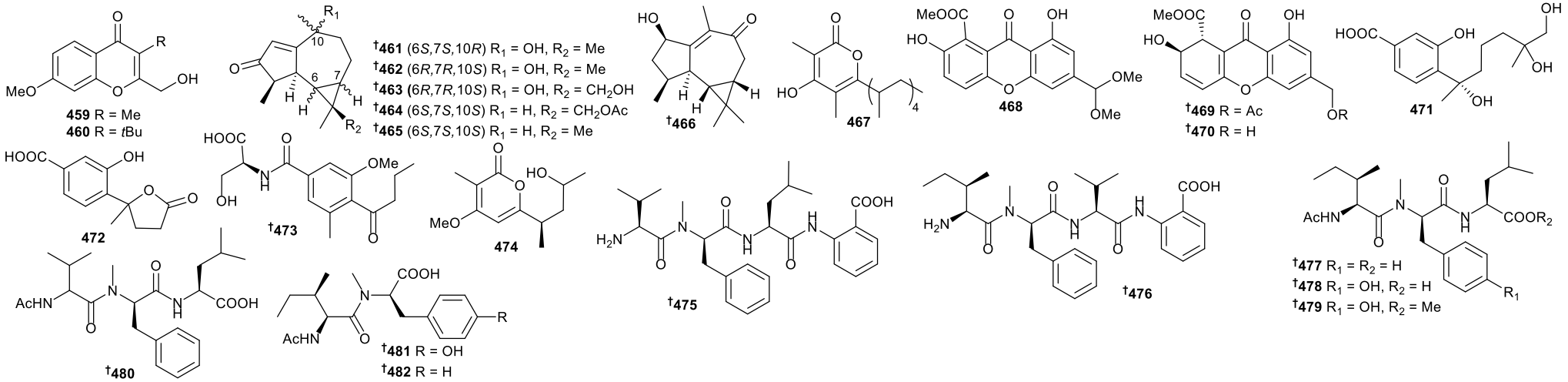
191 Ascomycota *Phoma* sp. // (jellyfish, *Neopilema nomurai*) S. coast of Korea // An unusual 1(10→19)abeo steroid from a jellyfish-derived fungus
443 // N // phomarol // IA in wide range of assays // *

192 Ascomycota *Phoma* sp. // (red alga, *Pterocladiella capillacea*) N. Taiwan // Angiogenesis inhibitors and anti-inflammatory agents from *Phoma* sp. NTOU4195
444 // N // phomaketide A // good antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *
445 // N // phomaketide B // mod. antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *
446 // N // phomaketide C // potent AI (inhib. NO prod.), mod antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *
447 // N // phomaketide D // mod. antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *
448 // N // phomaketide E // mod. antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *
449 // N // pseurotin A3 // mod. antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *
450 // N // pseurotin G // mod. antiangiogenic activ. vs hum. endothelial progenitor cells (EPCs) // *

193 Ascomycota *Pleosporales* sp. // (sediment) Huanghua, China // Pleosporalone A, the first azaphilone characterized with aromatic A-ring from a marine-derived *Pleosporales* sp. fungus
451 // N // pleosporalone A // potent AF vs 3 plant pathogenic strains // *

194 Ascomycota *Pseudallescheria boydii* // (soft coral, *Lobophyton crassum*) Hainan Sanya National Coral Reef Reserve, P. R. China // Secondary metabolites with chemical diversity from the marine-derived fungus Pseudallescheria boydii F19-1 and their cytotoxic activ.
452 // N // pseuboydone A // mod. insecticidal activ. vs Fall armyworm cells // *
453 // N // pseuboydone B // NT // *
454 // N // pseuboydone E // NT // *
455 // N // pseuboydone C // good insecticidal activ. vs Fall armyworm cells // *
456 // N // pseuboydone D // NT // *

195 Ascomycota *Pseudallescheria ellipsoidea* // (soft coral, *Lobophyton crassum*) Hainan Sanya National Coral Reef Reserve, China // Two additional new compounds from the marine-derived fungus *Pseudallescheria ellipsoidea* F42-3
457 // N // pseudellone D // NT // *
458 // N // (5S, 6S)-dihydroxylasiodiplodin // NT // *



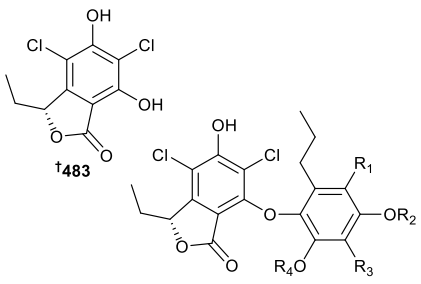
143 Ascomycota *Rhinocladiella* sp. // (sponge, *Ircinia oros*) Ilyosta-Ayvalik, Turkey // New chromone, isocoumarin, and indole alkaloid derivatives from three sponge-derived fungal strains
459 // N // * // NT // *
460 // N // * // NT // *

196 Ascomycota *Scedosporium dehoogii* // (sponge, *Phyllospongia foliascens*) Hainan Sanya National Coral Reef Reserve, P. R. China // Discovery of aromadendrane anologues from the marine-derived fungus *Scedosporium dehoogii* F41-4 by NMR-guided isolation
461 // N // scedogiine A // NT // *
462 // N // scedogiine B // NT // *
463 // N // scedogiine C // NT // *
464 // N // scedogiine D // NT // *
465 // N // scedogiine E // NT // *
466 // N // scedogiine F // NT // *
467 // N // scedogiine G // NT // *

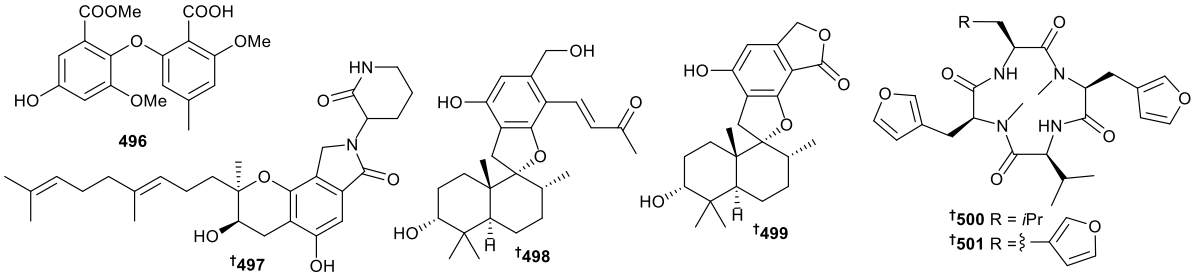
197 Ascomycota *Scopulariopsis* sp. // (coral, *Stylophora* sp.) Ain El-Sokhna area, Red Sea, Egypt // Xanthones and sesquiterpene derivatives from a marine-derived fungus *Scopulariopsis* sp.
468 // N // 12-dimethoxypinselin // IA // *
469 // N // 12-O-acetyl-AGI-B4 // IA // *
470 // R // AGI-B4 // good cytotox. vs murine cell line (but already known) // *
471 // N // 11,12-dihydroxysydonic acid // IA // *
472 // N // 1-hydroxyboivinianic acid // IA // *
473 // N // scopulamide // IA // *
474 // N // scopupyrone // IA // *

198 Ascomycota *Simplicillium obclavatum* // (sediment) East Indian Ocean // Eight linear peptides from the deep-sea-derived fungus *Simplicillium obclavatum* EIODSF 020
475 // N // simplicilliumtide A // IA // *
476 // N // simplicilliumtide B // IA // *
477 // N // simplicilliumtide C // IA // *

478 // N // simplicilliumtide D // potent antifoul. activ. vs *Bugula neritina* larvae // *
479 // N // simplicilliumtide E // IA // *
480 // N // simplicilliumtide F // IA // *
481 // N // simplicilliumtide G // IA // *
482 // N // simplicilliumtide H // IA // *



†**484** R_1 = Cl, R_2 = R_4 = Me, R_3 = H
†**485** R_1 = Cl, R_2 = Me, R_3 = R_4 = H
†**486** R_1 = Cl, R_2 = R_3 = H, R_4 = Me
†**487** R_1 = R_2 = H, R_3 = Cl, R_4 = Me,
†**488** R_1 = Cl, R_2 = R_3 = R_4 = H
†**489** R_1 = R_2 = R_4 = H, R_3 = Cl
†**490** R_1 = R_2 = R_3 = R_4 = H
†**491** R_1 = R_2 = R_3 = H,R_4 = Me
†**492** R_1 = R_3 = Cl, R_2 = R_4 = H
†**493** R_1 = R_3 = Cl, R_2 = Me, R_4 = H
†**494** R_1 = R_3 = Cl, R_2 = H, R_4 = Me
†**495** R_1 = R_3 = Cl, R_2 = R_4 = Me



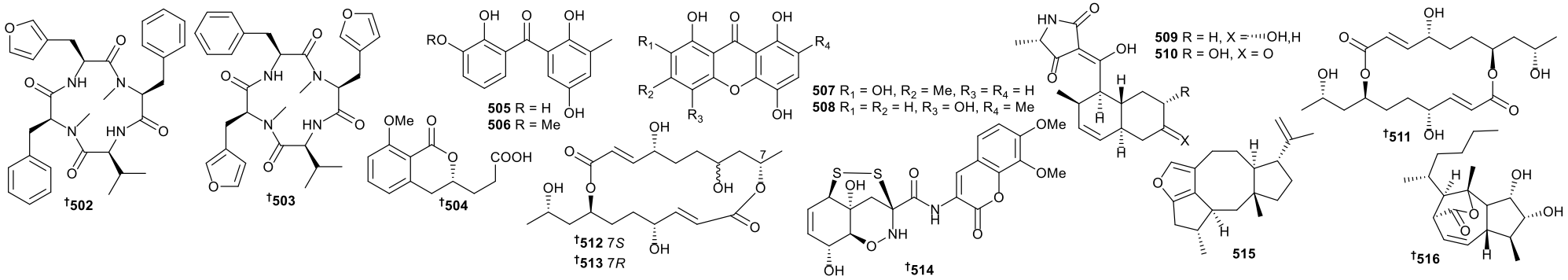
199 Ascomycota *Spiromastix* sp., *Spiromastigoides* sp. // (sediment) S. Atlantic Ocean // Spiromastilactones: a new class of influenza virus inhibitors from deep-sea fungus
483 // N // spiromastilactone A // IA // *
484 // N // spiromastilactone B // strong activ. vs WSN influenza virus // *
485 // N // spiromastilactone C // IA // *
486 // N // spiromastilactone D // strong activ. vs WSN influenza virus // *
487 // N // spiromastilactone E // strong activ. vs WSN influenza virus // *
488 // N // spiromastilactone F // mod. activ. vs WSN influenza virus // *
489 // N // spiromastilactone G // mod. activ. vs WSN influenza virus // *
490 // N // spiromastilactone H // IA // *
491 // N // spiromastilactone I // weak activ. vs WSN influenza virus // *
492 // N // spiromastilactone J // mod. activ. vs WSN influenza virus // *
493 // N // spiromastilactone K // IA // *
494 // N // spiromastilactone L // mod. activ. vs WSN influenza virus // *
495 // N // spiromastilactone M // IA // *

200 Ascomycota *Talaromyces tratensis*, *Sporidesmium circinophorum* // *Taloromyces* = (sponge, *Mycale* sp.,) Samae San Is.,Thailand; *Sporidesmium* = (sponge, *Petrosia* sp) Chonburi Province, Thailand // Secondary metabolites from the culture of the marine sponge-associated fungi *Talaromyces tratensis* and *Sporidesmium circinophorum*
496 // N // circinophoric acid // IA AB, AF, cytotox., QS assays // *

201 Ascomycota *Stachybotrys longispora* // no source given // Fibrinolytic evaluation of compounds isolated from a marine fungus *Stachybotrys longispora* FG216
497 // N // fungi fibrinolytic cpd 2 (FGFC2) // mod. fibrinolytic activ. // *

202 Ascomycota *Stachybotrys* sp. // (sediment) Wi-Is., S. Korea // Stachybotrysin, an osteoclast differentiation inhibitor from the marine-derived fungus *Stachybotrys* sp. KCB13F013
498 // N // stachybotrysin // inhib. of osteoclast differentiation // *
499 // N // stachybotrylactone B // IA // *

203 Ascomycota *Stachylidium* sp. // (sponge, *Callyspongia* sp. cf. *C. flammea*) Bare Is., N.S.W., Australia // Endolides A and B, vasopressin and serotonin-receptor interacting N-methylated peptides from the sponge-derived fungus *Stachylidium* sp.
500 // N // endolide A // affinity vasopressin receptor // *
501 // N // endolide B // affinity serotonin receptor // *



204 Ascomycota *Stachylidium* sp. // (sponge, *Callyspongia* sp. cf. *C. flammea*) Bare Is., N.S.W., Australia // Insights into the biosynthetic origin of 3-(3-furyl)alanine in *Stachylidium* sp. 293 K04 tetrapeptides
502 // N // endolide C // NT // *
503 // N // endolide D // NT // *

200 Ascomycota *Talaromyces tratensis*, *Sporidesmium circinophorum* // *Taloromyces* = (sponge, *Mycale* sp.,) Samae San Is.,Thailand; *Sporidesmium* = (sponge, *Petrosia* sp) Chonburi Province, Thailand // Secondary metabolites from the culture of the marine sponge-associated fungi *Talaromyces tratensis* and *Sporidesmium circinophorum*
504 // N // tratenopyrone // IA AB, AF, cytotox., QS assays // *

205 Ascomycota *Talaromyces islandicus* // (red alga, *Laurencia okamurai*) Huiquan Gulf // Two new diphenylketones and a new xanthone from *Talaromyces islandicus* EN-501, an endophytic fungus derived from the marine red alga *Laurencia okamurai*
505 // N // * // potent AO activ. (DPPH, ABTS), mod. AB vs 6 strains // *
506 // N // * // potent AO activ. (DPPH, ABTS), IA AB vs 6 strains // *
507 // N // * // potent AO activ. (DPPH, ABTS), weak AB vs 5 strains // *
508 // M // 1,4,5-trihydroxy-2-methyl-9*H*-xanthen-9-one // potent AO activ. (DPPH, ABTS), mod. AB vs 6 strains // *

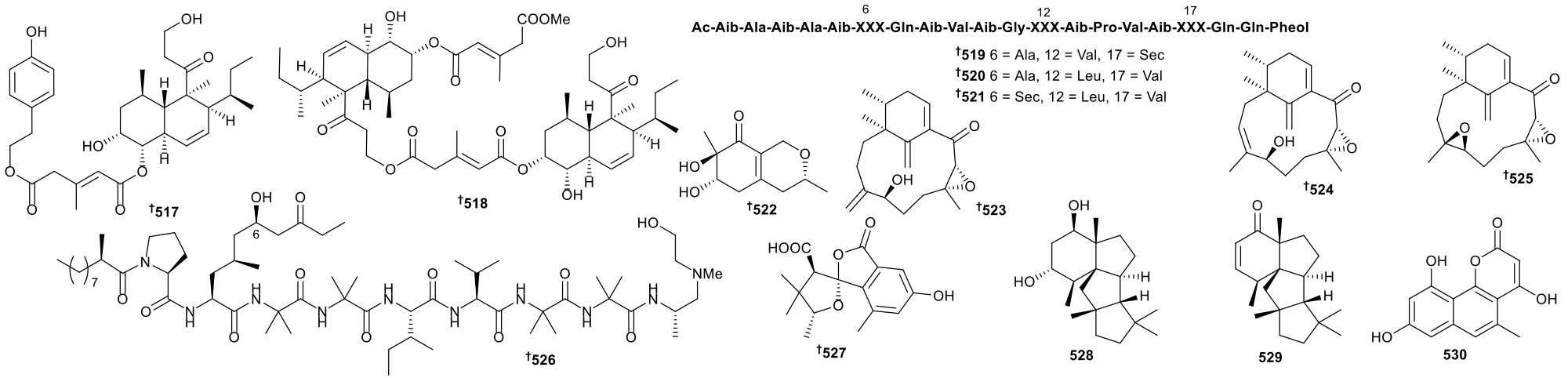
206 Ascomycota *Tolypocladium* sp. // (sediment) Frobisher Bay, Nunavut, Canada // Isolation of iqalisetins A and B from a *Tolypocladium* sp. isolated from marine sediment from Frobisher Bay in Canada's arctic
509 // N // iqalisetin A // IA vs 4 bact. and 1 fung. strain and 3 HTCLs // *
510 // N // iqalisetin B // IA vs 4 bact. and 1 fung. strain and 3 HTCLs // *

207 Ascomycota *Trichobotrys effusa* // (sediment), S. China Sea // New antifouling macrodiolides from the deep-sea-derived fungus *Trichobotrys effuse* DFFSCS021
511 // N // trichobotryside A // potent antifoul. vs *Bugula neritina* and *Bugula amphitrite* larvae // *
512 // N // trichobotryside B // mod. antifoul. vs *Bugula neritina* larvae // *
513 // N // trichobotryside C // weak antifoul. vs *Bugula amphitrite* larvae // *

208 Ascomycota *Trichoderma brevicompactum* // (unspecified red alga) Palau // Induced prod. of a new dipeptide with a disulfide bridge by long-term fermentation of marine-derived *Trichoderma* cf. *brevicompactum*
514 // N // dithioaspergillazine A // mod. cytotox. vs 2 HTCLs // *

209 Ascomycota *Trichoderma citrinoviride* // (brown alga, *Dictyopteris prolifera*) Zhoushan, China // Trichocitrin, a new fusicoccane diterpene from the marine brown alga-endophytic fungus *Trichoderma citrinoviride* cf-27
515 // N // trichocitrin // mod. AB vs 1 strain, weak antimicroalgal activ. vs 1 strain // *

210 Ascomycota *Trichoderma citrinoviride* // (brown alga, *Dictyopteris prolifera*) Zhoushan, China // Citrinovirin a new norditerp. skeleton from the marine algicolous fungus *T. citrinoviride*
516 // N // citrinovirin // mod. AB vs 1 strain // *



211 Ascomycota *Trichoderma harzianum* // (sponge, *Halichondria okadai*) Osaka Bay, Japan // Tandyukisins E and F, novel cytotoxic decalin derivatives isolated from a marine sponge-derived fungus
517 // N // tandyukisin E // mod. cytotox. vs 1 murine , 2 HTCLs // *
518 // N // tandyukisin F // mod. cytotox. vs 1 murine , 2 HTCLs // *

212 Ascomycota *Trichoderma longibrachiatum* // (blue mussels, *Mytilus edulis)* Estuary Loire R., France // Identification and biological activities of long-chain peptaibols produced by a marine-derived strain of *Trichoderma longibrachiatum*
519 // N // longibrachin A-0 // NT // *
520 // N // longibrachin A-II-b // mod. cytotox. vs 1 HTCL, mod,. AB vs 2 strains, mod. AF vs 1 strain // *
521 // N // longibrachin A-IV-b // NT // *

213 Ascomycota *Xylariales* sp. // (seagrass, *Halophila ovalis*) Trang province, Thailand // Xylariphilone: a new azaphilone deriv. from the seagrass-derived fungus *Xylariales* sp. PSU-ES163
522 // N // xylariphilone // NT // *

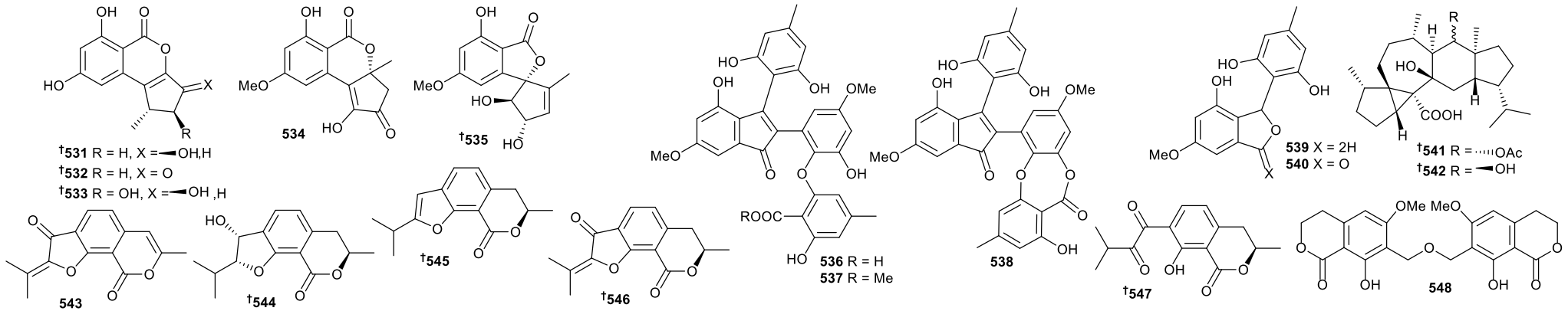
214 Ascomycota unidentified // (brown alga, *Ishige okamurae*) Tateishi, Kanagawa Prefecture, Japan // Three novel phomactin-type diterpenes from a marine-derived fungus
523 // N // phomactin N // NT // *
524 // N // phomactin O // NT // *
525 // N // phomactin P // NT // *

215 Ascomycota *Trichoderma* sp. // * // Total synthesis and stereochemical revision of the anti-tuberculosis peptaibol trichoderin A
526 // R // trichoderin A // * // *

216 Ascomycota *Coniothyrium cereale* // * // Total synthesis and structural reassignment of (±)-cereoanhydride
527 // R // (±)-cereoanhydride // * // *

217 Ascomycota *Penicillium* sp. // * // Total syntheses of the tetracyclic cyclopiane diterpenes conidiogenone, conidiogenol, and conidiogenone B
528 // R // conidiogenol // * // *
529 // R // conidiogenone B // * // *

227 Ascomycota *Aspergillus* sp. // (deep sea sediment), Levantine Basin, Crete // Marine fungi as producers of benzocoumarins, a new class of inhibitors of glycogen-synthase-kinase 3β
530 // M // pannorin // good inhib. GSK 3β// *

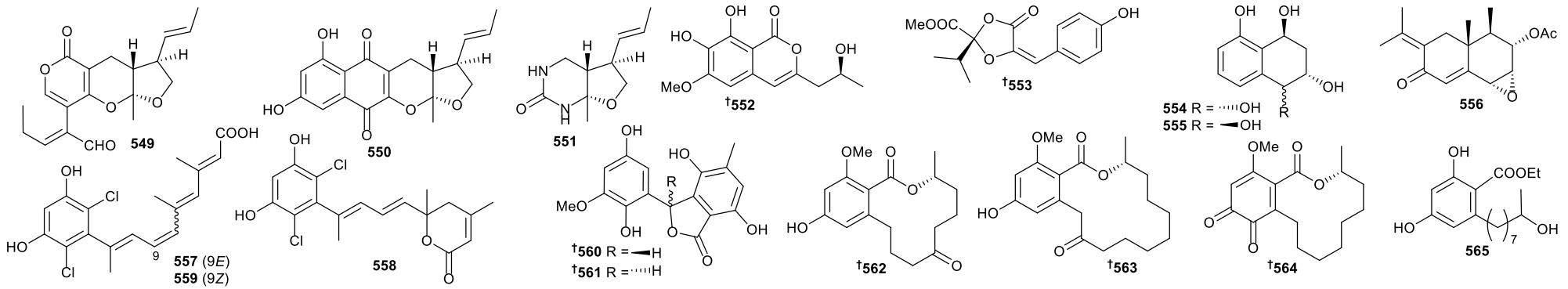


231 Ascomycota *Alternaria* sp. // (Tracheophyta, *Sonneratia caseolaris*, fruit) Shankou Mangrove reserve, Guangxi Province, China // Altenusin derivatives from mangrove endophytic fungus *Alternaria* sp. SK6YW3L
- **531** // N // * // weak α-glucosidase inhib. // *
- **532** // N // * // mod. α-glucosidase inhib. // *
- **533** // N // * // mod. α-glucosidase inhib. // *
- **534** // N // * // weak α-glucosidase inhib. // *
- **535** // N // * // weak α-glucosidase inhib. // *

232 Ascomycota // (Tracheophyta, *Kandelia candel*, leaf) Shankou Mangrove Nature Reserve, Guangxi Province, China // Antioxidative polyketones from the mangrove-derived fungus *Ascomycota* sp. SK2YWS-L
- **536** // N // ascomindone A // good radical scavenging (DPPH) (FRAP) // *
- **537** // N // ascomindone B // mod. radical scavenging (DPPH) (FRAP) // *
- **538** // N // ascomindone C // mod. radical scavenging (DPPH) (FRAP) // *
- **539** // N // ascomfuran A // mod. radical scavenging (DPPH) (FRAP) // *
- **540** // N // ascomfuran B // mod. radical scavenging (DPPH) (FRAP) // *

233 Ascomycota *Aspergillus terreus* // (Tracheophyta, *Kandelia obovata*) Zhanjiang Mangrove Nature Reserve, Guangdong Province, China // Aspterpenacids A and B, two sesterterpenoids from a mangrove endophytic fungus *Aspergillus terreus* H010
- **541** // N // aspterpenacid A // IA AB (6 strains) and 2 HTCLs // *
- **542** // N // aspterpenacid B // IA AB (6 strains) and 2 HTCLs // *

234 Ascomycota *Aspergillus* sp. // (Tracheophyta, *Acanthus ilicifolius*, roots) Shankou Mangrove National Nature Reserve, Guangxi Province, China // New furoisocoumarins and isocoumarins from the mangrove endophytic fungus *Aspergillus* sp. 085242.
- **543** // N // asperisocoumarin A // weak radical scavenging (DPPH). IA α-glucosidase inhib. and AB (5 strains). // *
- **544** // N // asperisocoumarin B // mod. α-glucosidase inhib., IA AB (5 strains) and radical scavenging (DPPH) // *
- **545** // M // asperisocoumarin C // weak radical scavenging (DPPH). IA α-glucosidase inhib. and AB (5 strains). // *
- **546** // M // asperisocoumarin D // IA // *
- **547** // N // asperisocoumarin E // mod. α-glucosidase inhib., IA AB (5 strains) and radical scavenging (DPPH) // *
- **548** // N // asperisocoumarin F // mod. α-glucosidase inhib., IA AB (5 strains) and radical scavenging (DPPH) // *



235 Ascomycota *Astrosphaeriella nypae* // (Tracheophyta, *Nypa fruticans*) Samut Prakan province, Thailand // A pyrone, naphthoquinone, and cyclic urea from the marine-derived fungus *Astrosphaeriella nypae* BCC 5335
549 // N // astronypyrone // NT // *
550 // N // astronyquinone // weak anti-TB vs *M. tuberculosis*, weak cytotox. vs mammalian cell line // *
551 // N // astronyurea // NT // *

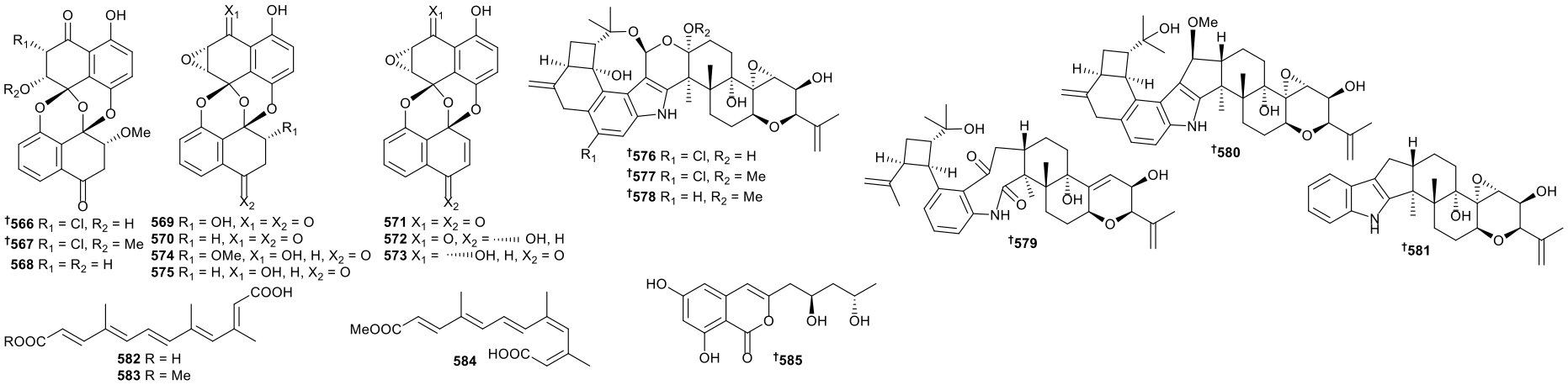
236 Ascomycota *Botryosphaeria* sp. // (Tracheophyta, *Kandelia candel*, fruit) Daya Bay, Shenzhen, Guangdong Province, China // New phenyl derivatives from endophytic fungus *Botryosphaeria* sp. SCSIO KcF6 derived of mangrove plant *Kandelia candel*
552 // N // botryosphaerin A // IA AB (5 strains), vs 10 HTCLs and COX-2 inhib. // *
553 // N // botryosphaerin B // specific COX-2 inhib. IA AB (5 strains) and vs 10 HTCLs // *
554 // M // * // IA AB (5 strains), vs 10 HTCLs and COX-2 inhib. // *
555 // M // * // IA AB (5 strains), vs 10 HTCLs and COX-2 inhib. // *

237 Ascomycota *Capnodium* sp. // unspecified source // Chemical constituents of the mangrove-associated fungus *Capnodium* sp. SZ-F22. A new eremophilane sesquiterpene
556 // N // capnodiumone // IA AF (1 strain) // *

238 Ascomycota *Cosmospora vilior* // (Tracheophyta, *Sonneratia alba*) Pagandaran, West Java, Indonesia // GSK-3β inhibitory activities of novel dichroloresorcinol derivatives from *Cosmospora vilior* isolated from a mangrove plant
557 // N // cosmochlorin A // mod. inhib. GSK 3β, mod. AB (3 strains) and AF (1 strain) // *
558 // N // cosmochlorin B // mod. inhib. GSK 3β, increases osteoclast formation, IA AB (3 strains) and AF (1 strain) // *
559 // N // cosmochlorin C // mod. AB (3 strains) and AF (1 strain), GSK 3β inhib. NT // *

239 Ascomycota *Eurotium rubrum* MA-150 // (unspecified mangrove rhizophere soil) // Isolation, stereochemical study, and antioxidant activity of benzofuranone derivatives from a mangrove-derived fungus *Eurotium rubrum* MA-150
560 // N // * // potent radical scavenging as racemate (DPPH) // *
561 // N // * // potent radical scavenging as racemate (DPPH) // *

240 Ascomycota *Lasiodiplodia* sp. // (Charophyta, *Excoecaria agallocha*) Mangrove National Nature Reserve, Gaoqiao, Zhanjiang city, Guangdong Provine, China // Lasiodiplodins from mangrove endophytic fungus *Lasiodiplodia* sp. 318#
562 // N // * // IA vs 5 HTCLs. // *
563 // N // * // IA vs 5 HTCLs. // *
564 // N // * // IA vs 5 HTCLs. // *
565 // N // * // weak cytotox. vs 5 HTCLs. // *



241 Ascomycota *Lasiodiplodia theobromae* // (Tracheophyta, *Acanthus ilicifolius*, leaves) Zhanjiang Mangrove Nature Reserve, Guangdong Province, China // Cytotoxic and antibacterial preussomerins from the mangrove endophytic fungus *Lasiodiplodia theobromae* ZJ-HQ1

566 // N // chloropreussomerin A // mod. cytotox. vs 5 HTCLs, mod. AB vs *S. aureus* // *

567 // N // chloropreussomerin B // mod. cytotox. vs 5 HTCLs, mod. AB vs *S. aureus* // *

568 // M // preussomerin M // NT // *

569 // M // preussomerin K // mod. cytotox. vs 5 HTCLs, IA vs *S. aureus* // *

570 // M // preussomerin H // mod. cytotox. vs 5 HTCLs, mod. AB vs *S. aureus* // *

571 // M // preussomerin G // mod. cytotox. vs 5 HTCLs, weak AB vs *S. aureus* // *

572 // M // preussomerin F // mod. cytotox. vs 5 HTCLs, AB vs *S. aureus* // *

573 // M // preussomerin D // mod. cytotox. vs 5 HTCLs, AB NT // *

574 // M // preussomerin C // IA // *

575 // M // Ymf 1029E // weak cytotox. vs 2 HTCLs, AB NT // *

242 Zygomycota *Mucor irregularis* // (Tracheophyta, *Rhizophora stylosa*, stems) Hainan Is., China // Rhizovarins A–F, indole-diterps. from mangrove-derived endophytic *M. irregularis*

576 // N // rhizovarin A // weak cytotox. vs 2 HTCLs. // *

577 // N // rhizovarin B // weak cytotox. vs 2 HTCLs. // *

578 // N // rhizovarin C // IA // *

579 // N // rhizovarin D // IA // *

580 // N // rhizovarin E // IA // *

581 // N // rhizovarin F // IA // *

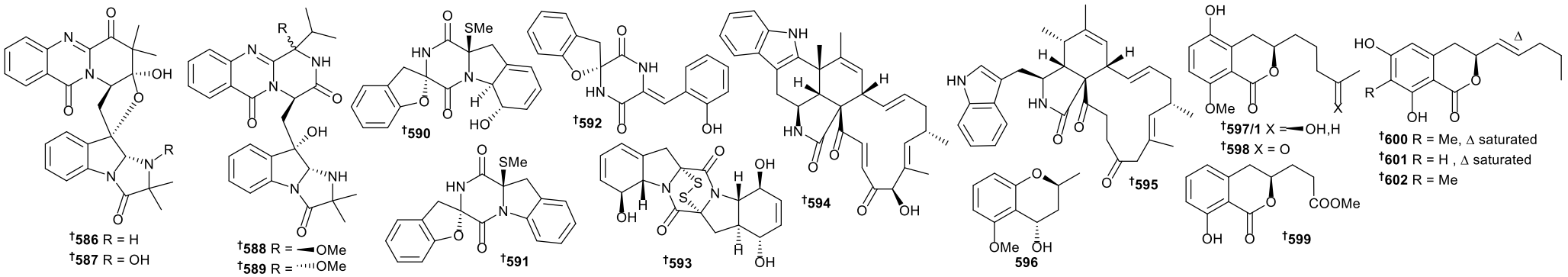
243 Ascomycota *Nectria* sp. // (Tracheophyta, *Sonneratia ovata*, branch) Hainan province, China // Polyketides from the mangrove-derived endophytic fungus *Nectria* sp. HN001 and their α-glucosidase inhibitory activity

582 // N // nectriacid A // mod. inhib. α-glucosidase // *

583 // N // nectriacid B // potent inhib. α-glucosidase // *

584 // N // nectriacid C // potent inhib. α-glucosidase // *

585 // N // 12-epicitreoisocoumarinol // mod. inhib. α-glucosidase // *



244 Ascomycota *Neosartorya udagawae* // (Tracheophyta, *Aricennia marina*, root) Hainan, China // Neosartoryadins A and B, fumiquinazoline alkaloids from a mangrove-derived fungus *Neosartorya udagawae* HDN13-313
586 // N // neosartoryadin A // potent AV (H1N1), IA vs 1 HTCL // *
587 // N // neosartoryadin B // potent AV (H1N1), IA vs 1 HTCL // *
588 // N // fiscalin E // IA // *
589 // N // fiscalin F // IA // *

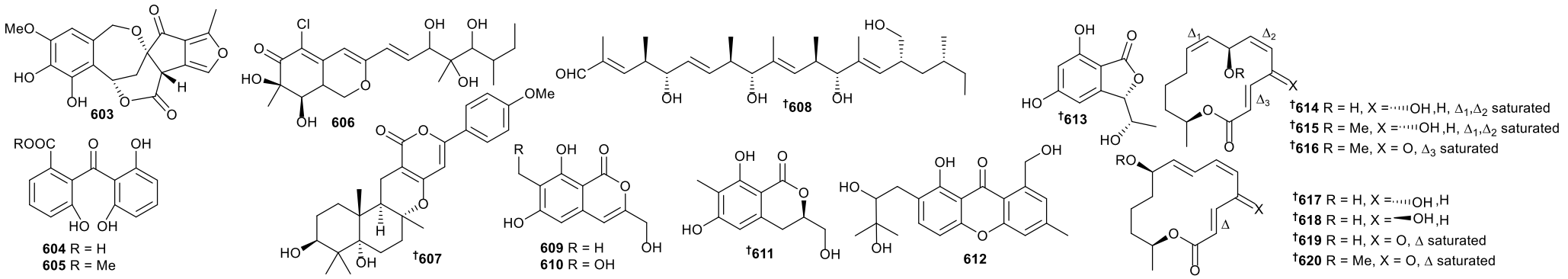
245 Ascomycota P*enicillium brocae* // (unspecified source) Hainan Is., P. R. China // Three diketopiperazine alkaloids with spirocyclic skeletons and one bisthiodiketopiperazine derivative from the mangrove-derived endophytic fungus *Penicillium brocae* MA-231
590 // N // spirobrocazine A // IA vs 2 HTCLs and weak AB (3 strains) // *
591 // N // spirobrocazine B // IA // *
592 // N // spirobrocazine C // mod. cytotox. vs 1 HTCL , weak AB (3 strains) // *
593 // N // brocazine G // potent cytotox. vs 2 HTCLs and potent AB (*S. aureus*) // *

246 Ascomycota *Penicillium chrysogenum* // (Magnoliophyta, *Myoporum bontioides*, vein) Leizhou Peninsula, Guangdong Province, China // Bioactive chaetoglobosins from the mangrove endophytic fungus *Penicillium chrysogenum*
594 // N // penochalasin I // mod. cytotox vs 3 HTCLs, IA AF (4 strains) // *
595 // N // penochalasin J // weak cytotox vs 3 HTCLs, weak AF (4 strains) // *

247 Ascomycota *Penicillium citrinum* // (Tracheophyta, *Bruguiera sexangula* var. *rhynchopetala*, leaves) S. China Sea // A new benzopyrans derivatives from a mangrove-derived fungus *Penicillium citrinum* from the South China Sea
596 // N // * // IA AB (6 strains) // *

248 Ascomycota *Penicillium citrinum* // (Tracheophyta, *Bruguiera sexangula* var. *rhynchopetala*) S. China Sea // Dihydroisocoumarins from the mangrove-derived fungus *P. citrinum*
597 // N // penicimarin G // mod. AB (5 strains), IA vs 3 HTCLs // *
598 // N // penicimarin H // mod. AB (4 strains), IA vs 3 HTCLs // *
599 // N // penicimarin I // IA // *

249 Ascomycota *Penicillium simplicissimum* MA-332 // (Tracheophyta, *Bruguiera sexangula* var. *rhynchopetala*, rhizosphere soil) Hainan Is., China // Penicisimpins A–C, three new dihydroisocoumarins from *Penicillium simplicissimum* MA-332, a marine fungus derived from the rhizosphere of the mangrove plant *Bruguiera sexangula* var. *rhynchopetala*
600 // N // penicisimpin A // mod. AB (6 strains) and AF (1 strain) // *
601 // N // penicisimpin B // weak-mod. AB (7 strains) and AF (2 strains) // *
602 // N // penicisimpin C // mod. AB (7 strains) and AF (1 strain) // *



250 Ascomycota *Penicillium sacculum* // (Tracheophyta, *Atriplex* sp.) Dongying City, Shandong, China // A new polyketide, penicillolide from the marine-derived fungus *P. sacculum*
603 // N // penicillolide // NT // *

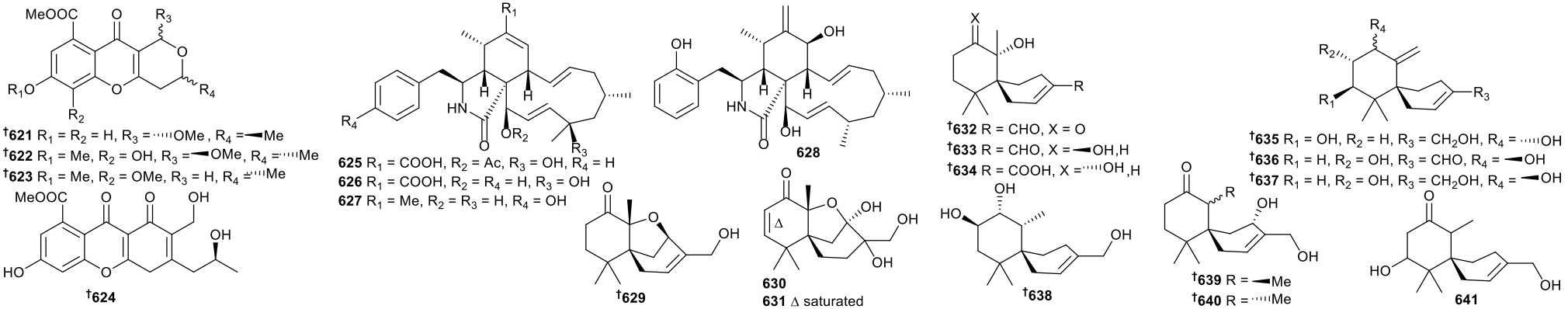
251 Ascomycota *Penicillium* sp. // (Tracheophyta, *Sonneria apetala*, leaves) Zhanjiang Mangrove Nature Reserve, Guangdong Province, China // Polyketides with immunosuppressive activities from mangrove endophytic fungus *Penicillium* sp. ZJ-SY2
604 // N // peniphenone // mod. immunosuppressive activ. // *
605 // N // methyl peniphenone // weak immunosuppressive activ. // *

252 Ascomycota *Penicillium sclerotiorum* // (unspecified mangrove, rotted leaves) Haikou, Hainan Province, China // Penicilazaphilone C, a new antineoplastic and antibacterial azaphilone from the marine fungus *Penicillium sclerotiorum*
606 // N // penicilazaphilone C // potent and selective cytotox. vs 2 HTCLs, potent AB (4 strains) // *

253 Ascomycota *Penicillium* sp. // (Tracheophyta, *Kandelia candel*, leaves) Shankou, Guangxi province, China // Bioactive α-pyrone meroterpenoids from endophytic fungus *Penicillium* sp.
607 // N // 3-epiarigsugacin E // weak AchE inhib. // *

254 Ascomycota *Pestalotiopsis clavispora*, *Neopestalotiopsis clavispora* // (Tracheophyta, *Rhizophora harrisonii*, petioles) Swamp Forest Research Station Onne, Port Harcourt, Rivers State, Nigeria // Polyketides from the mangrove-derived fungal endophyte *Pestalotiopsis clavispora*
608 // N // pestalpolyol I // mod. cytotox. vs murine cell line // *
609 // N // pestapyrone A // IA // *
610 // N // pestapyrone B // IA // *
611 // N // (R)-periplanetin D // IA // *
612 // N // pestaxanthone // IA // *
613 // M // norpestaphthalide A // IA // *

255 Ascomycota *Pestalotiopsis microspora* // (Magnoliphyta, *Drepanocarpus lunatus*, fruit) Douala, Cameroon // Cytotoxic 14-membered macrolides from a mangrove-derived endophytic fungus, *Pestalotiopsis microspora*
614 // N // pestalotioprolide C // IA // *
615 // N // 7-O-methylnigrosporolide // cytotox. vs murine cancer cell line, weak cytotox. vs 1 HTCL // *
616 // N // pestalotioprolide D // cytotox. vs murine cancer cell line, IA vs 1 HTCL // *
617 // N // pestalotioprolide E // cytotox. vs murine cancer cell line, potent cytotox. vs 1 HTCL // *
618 // N // pestalotioprolide F // cytotox. vs murine cancer cell line, weak cytotox. vs 1 HTCL // *
619 // N // pestalotioprolide G // IA vs murine cancer cell line, weak cytotox. vs 1 HTCL // *
620 // N // pestalotioprolide H // cytotox. vs murine cancer cell line, IA vs 1 HTCL // *



256 Ascomycota *Phomopsis* sp. // (Tracheophyta, *Rhizophora stylosa*, bark) Zhanjiang, Guangdong Province, China // Phomopsichin A–D; four new chromone derivatives from mangrove endophytic fungus *Phomopsis* sp. 33#

621 // N // phomopsichin A // Range of weak activ.; radical scavenging (DPPH), AchE, AB (13 strains) // *

622 // N // phomopsichin B // Range of weak activ.; radical scavenging (DPPH), AchE, AB (13 strains) // *

623 // N // phomopsichin C // Range of weak activ.; radical scavenging (DPPH), AchE, AB (13 strains) // *

624 // N // phomopsichin D // Range of weak activ.; radical scavenging (DPPH), AchE, AB (13 strains) // *

257 Ascomycota *Phomopsis* spp. xy21 and xy22 // (Tracheophyta, *Xylocarpus granatum*, leaves) Trang Province, Thailand // Cytochalasins from mangrove endophytic fungi *Phomopsis* spp.

625 // N // phomopsichalasin D // IA // *

626 // N // phomopsichalasin E // weak cytotox. vs 7 HTCLs // *

627 // N // phomopsichalasin F // mod. cytotox. vs 7 HTCLs // *

628 // N // phomopsichalasin G // mod. cytotox. vs 7 HTCLs // *

258 Basidiomycota *Pseudolagarobasidium acaciicola* // (Tracheophyta, *Bruguiera gymnorrhiza*, roots) The Mangrove Forest Learning and Development Center 2, Samut Sakhon province, Thailand // Cytotoxic sesquiterpenes from the endophytic fungus *Pseudolagarobasidium acaciicola*

629 // N // acaciicolide A // IA // *

630 // N // acaciicolide B // NT // *

631 // N // acaciicolide C // NT // *

632 // N // acaciicolinol A // IA // *

633 // N // acaciicolinol B // weak cytotox. vs 2 HTCLs // *

634 // N // acaciicolinol C // IA // *

635 // N // acaciicolinol D // IA // *

636 // N // acaciicolinol E // NT // *

637 // N // acaciicolinol F // NT // *

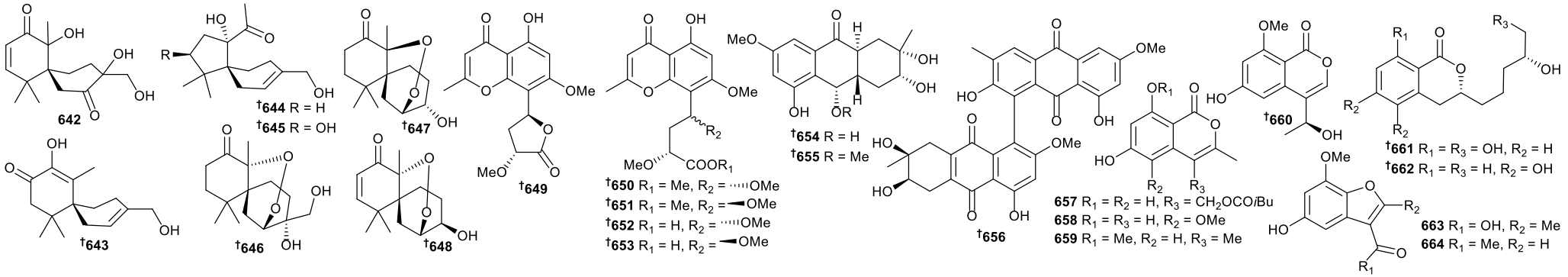
638 // N // acaciicolinol G // NT // *

639 // N // acaciicolinol H // NT // *

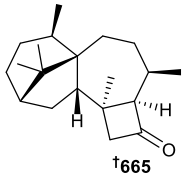
640 // N // acaciicolinol I // NT // *

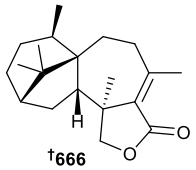
641 // N // acaciicolinol J // NT // *

642 // N // acaciicolinol K // NT // *
643 // N // acaciicolinol L // NT // *
644 // N // spiroacaciicolide B // NT // *
645 // N // spiroacaciicolide C // NT // *
646 // N // 7-epi-merulin B // potent cytotox. vs 7 HTCLs, 1 normal hum. cell line // *
647 // N // 3-epi-merulin A // mod. cytotox. vs 7 HTCLs, 1 normal hum. cell line // *
648 // N // * // NT // *



259 Ascomycota *Rhytidhysteron rufulum* // (Tracheophyta, *Bruguiera gymnorrhiza*, leaves) Pak Nam Pran, Prachuab Kiri Khan Province, Thailand // Highly oxygenated chromones from mangrove-derived endophytic fungus *Rhytidhysteron rufulum*
649 // N // rhytidchromone A // weak cytotox. vs 2 HTCLs // *
650 // N // rhytidchromone B // weak cytotox. vs 1 HTCL // *
651 // N // rhytidchromone C // IA // *
652 // N // rhytidchromone D // weak cytotox. vs 1 HTCL // *
653 // N // rhytidchromone E // weak cytotox. vs 2 HTCLs // *
260 Ascomycota *Stemphylium globuliferum* // (Tracheophyta, *Avicennia marina*) Hurghada, Egypt // Tetrahydroanthraquinone derivs. from the endophytic fungus *Stemphylium globuliferum*
654 // N // altersolanol Q // IA vs murine tumour cell line // *
655 // N // 10-methoxyaltersolanol Q // IA vs murine tumour cell line // *
656 // N // alterporriol X // IA vs murine tumour cell line // *
261 Ascomycota *Talaromyces amestolkiae* // (Tracheophyta, *Kandelia obovata*, leaves) Zhanjiang Mangrove Nature Reserve, Guangdong Province, China // Isocoumarins and benzofurans from the mangrove endophytic fungus *Talaromyces amestolkiae* possess α-glucosidase inhibitory and antibacterial activities
657 // N // * // mod. α-glucosidase inhib. IA AB (5 strains). // *
658 // N // * // potent α-glucosidase inhib. IA AB (5 strains). // *
659 // N // * // weak α-glucosidase inhib. IA AB (5 strains). // *
660 // N // * // weak α-glucosidase inhib. IA AB (5 strains). // *
661 // N // * // mod. α-glucosidase inhib. IA AB (5 strains). // *
662 // N // * // mod. α-glucosidase inhib. IA AB (5 strains). // *
663 // N // * // α-glucosidase inhib. NT weak AB (4 strains). // *
664 // N // * // α-glucosidase inhib. NT weak AB (4 strains). // *


†665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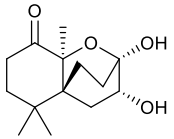
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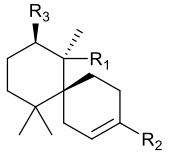
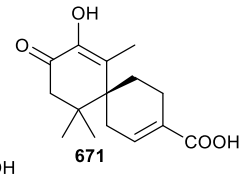

668 R_1 = OH, R_2 = CH_2OH, R_3 = OH
669 R_1 = H, R_2 = COOH, R_3 = OH
670 R_1 = H, R_2 = COOH, R_3 = OH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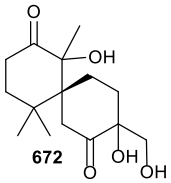
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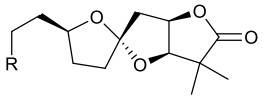
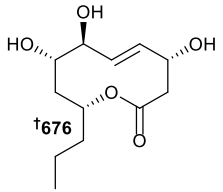

673 R = *n*-pentyl
674 R = CH_2COOH
675 R = CO*n*Pr

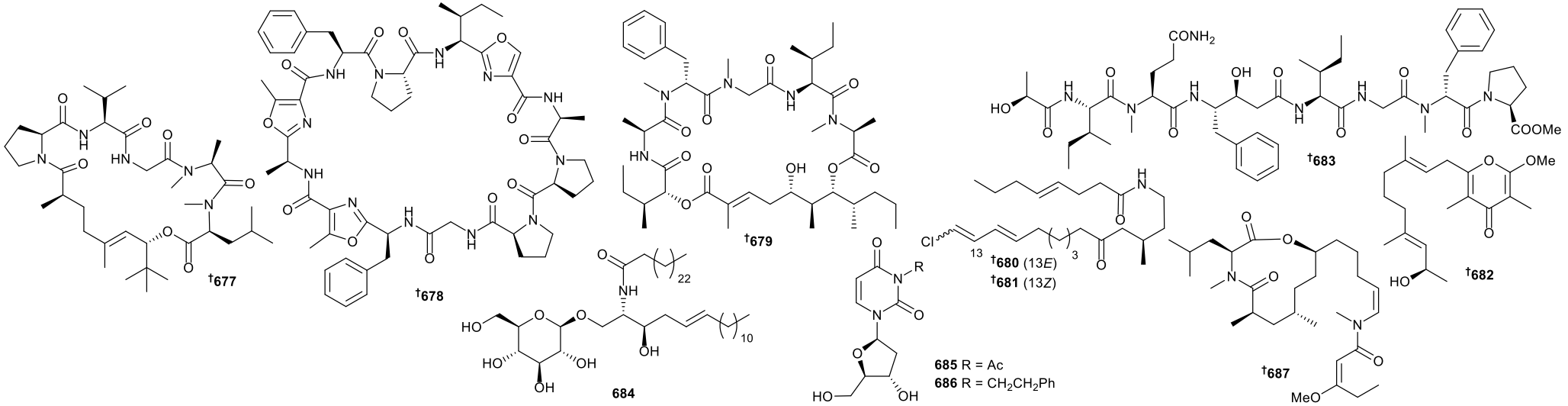

†676

262 Ascomycota *Trichoderma* sp. // (Tracheophyta, *Xylocarpus granatum*, leaves and stems) Sanya district, Hainan province, China // Two new diterpenoids from the endophytic fungus *Trichoderma* sp. Xy24 isolated from mangrove plant *Xylocarpus granatum*
665 // N // (9R,10R)-dihydro-harzianone // weak cytotox. vs 2 HTCLs // *
666 // N // harzianelactone // IA // *

263 Basidiomycota ?? // (Tracheophyta, *Xylocarpus granatum*, leaves) Samutsakorn province, Thailand // Chamigrane sesquiterpenes from a basidiomycetous endophytic fungus XG8D associated with Thai mangrove *Xylocarpus granatum*
667 // N // merulinol A // IA vs 3 HTCLs // *
668 // N // merulinol B // IA vs 3 HTCLs // *
669 // N // merulinol C // weak cytotox. vs 1 HTCL // *
670 // N // merulinol D // weak cytotox. vs 1 HTCL // *
671 // N // merulinol E // IA vs 3 HTCLs // *
672 // N // merulinol F // IA vs 3 HTCLs // *

264 Ascomycota *Penicillium* sp. // * // Total synthesis of purported cephalosporolides H and I, penisporolide B, and their stereoisomers
673 // R // cephalosporolide H // * // *
674 // R // cephalosporolide I // * // *
675 // R // penisporolide B // * // *

266 Ascomycota *Phomopsis* sp. // * // Enantioselective total synthesis of the proposed structure of the endophytic fungal metabolite phomolide G: structural revision and unambiguous stereochemical assignment
676 // R // phomolide G // * // *



268 Cyanobacteria *Okeania* sp. // Minnajima Is., Okinawa, Japan // Janadolide, a cyclic polyketide–peptide hybrid possessing a tert-butyl group from an *Okeania* sp. marine cyanobacterium
677 // N // janadolide // Antitrypanosomal activ., IC_{50} = 47 nM (*T. b. brucei*), no cytotox. vs 3 HTCL at 10 µM // Abs. config. assigned by degrad. and spectroscopic anal.

269 Cyanobacteria *Moorea producens* // Jeddah, Saudi Arabia // Wewakazole B, a cytotoxic cyanobactin from the cyanobacterium *Moorea producens* collected in the Red Sea
678 // N // wewakazole B // cytotox. HTCL, IC_{50} = 0.58 µM (MCF-7), IC_{50} = 1.0 µM (H460). // Abs. config. assigned by degrad. and spectroscopic anal.

270 Cyanobacteria *Okeania* sp. // Odo, Okinawa Prefecture, Japan // Odoamide, a cytotoxic cyclodepsipeptide from the marine cyanobacterium *Okeania* sp.
679 // N // odoamide // cytotox. HTCL, IC_{50} = 26.3 nM (HeLa S3). // Abs. config. assigned by degrad. and spectroscopic anal.

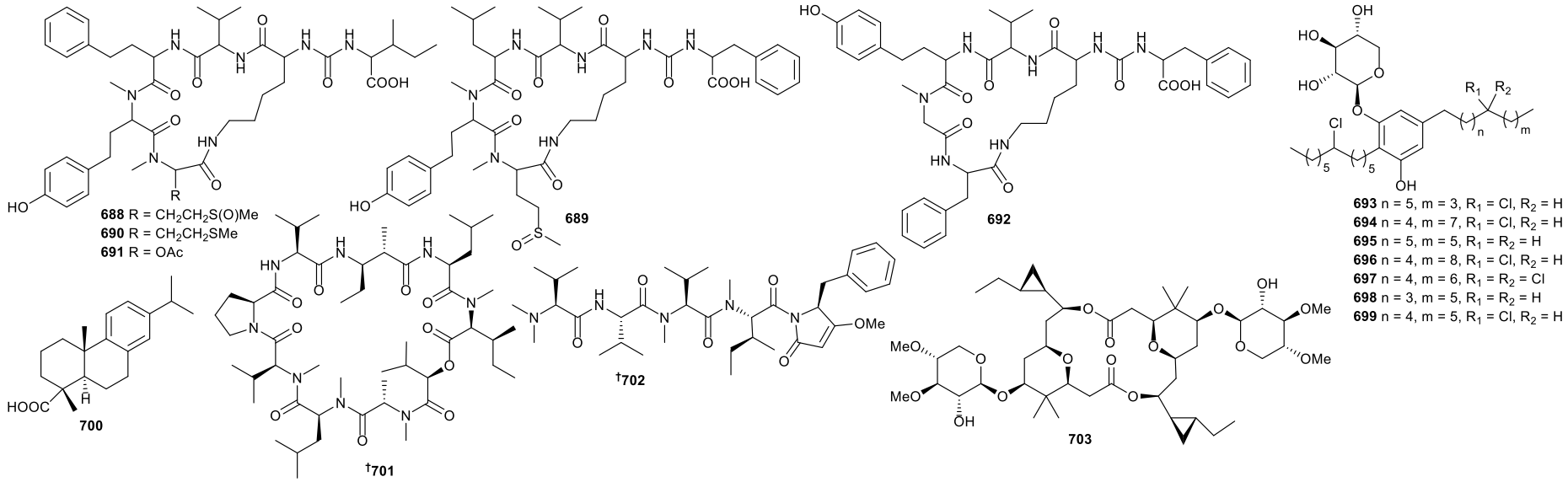
275 Cyanobacteria *Hydrocoleum majus* // Piti Bomb Holes, Guam // Pitiamides A and B, multifunctional fatty acid amides from marine cyanobacteria
680 // N // 1*E*-pitiamide B // cytotox. HTCL, IC_{50} = 1-5 µM // Abs. config. proposed based on spec. rot. data
681 // N // 1*Z*-pitiamide B // cytotox. HTCL, IC_{50} = 1-5 µM // Abs. config. proposed based on spec. rot. data

276 Cyanobacteria *Leptolyngbya* sp. // Fagasa Bay, American Samoa // Kalkipyrone B, a marine cyanobacterial γ-pyrone possessing cytotoxic and anti-fungal activities
682 // N // kalkipyrone B // cytotox. HTCL, EC_{50} = 9.0 µM (H-460); mod. AF activ., EC_{50} = 13.4 uM (*S. cerevisiae*) // Abs. config. assigned by Mosher's method.

277 Cyanobacteria *Lyngbya* sp. // Val's reef, Cocos Lagoon, Guam // Tasiamide F, a potent inhibitor of cathepsins D and E from a marine cyanobacterium
683 // N // tasiamide F // Antiproteolytic activ. (cathepsin D, IC_{50} = 57 nM; cathespin E, IC_{50} = 23 nM; BACE1, IC_{50} = 0.69 µM) // Abs. config. assigned by degrad. and spectroscopic anal.

278 Cyanobacteria *Moorea producens* // Jeddah, Saudi Arabia // New cerebroside and nucleoside derivatives from a Red Sea strain of the marine cyanobacterium *Moorea producens*
684 // N // mooreaside A // mod. cytotox. HTCL, IC_{50} = 20.5 to >50 µg/mL (MCF-7, HCT-116, HepG2) // Abs. config. assigned by degrad. and spectroscopic anal.
685 // M // 3-acetyl-2'-deoxyuridine // mod. cytotox. HTCL, IC_{50} = 18.2 to >50 µg/mL (MCF-7, HCT-116, HepG2) // *
686 // M // 3-phenylethyl-2'-deoxyuridine // mod. cytotox. HTCL, IC_{50} = 22.8 to >50 µg/mL (MCF-7, HCT-116, HepG2) // *

279 Cyanobacteria *Moorea bouillonii* // Kanami, Tokunosima Is., Kagoshima Prefecture, Japan // Kanamienamide, an enamide with an enol ether from the marine cyanobacterium *Moorea bouillonii*
687 // N // kanamienamide // cytotox. HTCL, IC_{50} = 2.5 µM (HeLa); induced apoptosis. // Abs. config. assigned by degrad. and spectroscopic anal.



280 Cyanobacteria *Nodularia spumigena*, *Aphanizomenom flos-aquae*, *Dolichospermum* sp. // Gdynia-Redłowo, Poland // Structures and activ. of new anabaenopeptins
688 // N // anabaenopeptin NP 883 // mod. carboxypeptidase A and protein phosphatase inhib. // *
689 // N // anabaenopeptin NP 869 // mod. carboxypeptidase A and protein phosphatase inhib. // *
690 // N // anabaenopeptin NP 867 // mod. carboxypeptidase A and protein phosphatase inhib. // *
691 // N // anabaenopeptin NP 865 // mod. carboxypeptidase A and protein phosphatase inhib. // *
692 // N // anabaenopeptin NP 813 // mod. carboxypeptidase A and protein phosphatase inhib. // *

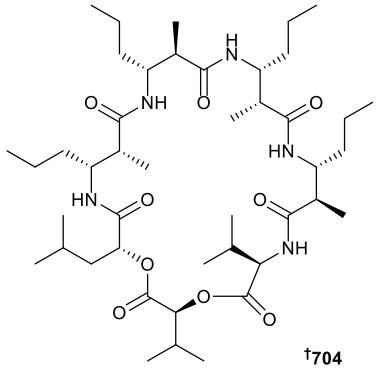
281 Cyanobacteria *Synechocystis salina* // N. Portugal // Bartolosides E–K from a marine coccoid cyanobacterium
693 // N // bartoloside E // IA vs HTCL, IC_{50} > 10 µM // *
694 // N // bartoloside F // IA vs HTCL, IC_{50} > 10 µM // *
695 // N // bartoloside G // IA vs HTCL, IC_{50} > 10 µM // *
696 // N // bartoloside H // IA vs HTCL, IC_{50} > 10 µM // *
697 // N // bartoloside I // IA vs HTCL, IC_{50} > 10 µM // *
698 // N // bartoloside J // IA vs HTCL, IC_{50} > 10 µM // *
699 // N // bartoloside K // IA vs HTCL, IC_{50} > 10 µM // *

282 Cyanobacteria *Nostoc* sp. // // The conifer biomarkers dehydroabietic and abietic acids are widespread in Cyanobacteria
700 // M // dehydroabietic acid // weak activ. vs marine picocyanobacterium *Synechococcus cf. nidulans* (IC_{50} = 108 µM) // *

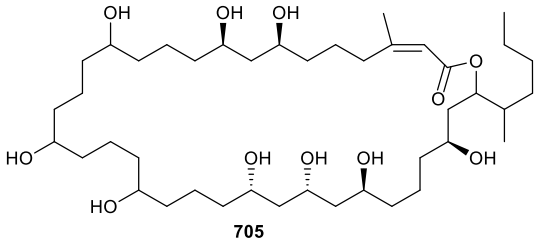
283 Cyanobacteria *Okeania* sp. // Ikei Is., Okinawa Prefecture, Japan // Urumamide, a novel chymotrypsin inhibitor with a β-amino acid from a marine cyanobacterium *Okeania* sp.
701 // N // urumamide // mod. cytotox. HTCL // Abs. config. assigned by degrad. and spectroscopic anal.

284 Cyanobacteria *Caldora penicillata* // Big Pine Ledges, Big Pine Key, Florida, USA // Caldoramide, a modified pentapeptide from the marine cyanobacterium *Caldora penicillata*
702 // N // caldoramide // mod. cytotox. HTCL. // Abs. config. assigned by total synth., as well as degrad. and spectroscopic anal.

285 Cyanobacteria *Symploca* sp. // Cocos Is., Guam // Discovery, total synthesis and key structural elements for the immunosuppressive activ. of cocosolide
703 // N // cocosolide // Inhib. growth of anti-CD3 stimulated T-cells // *



†704



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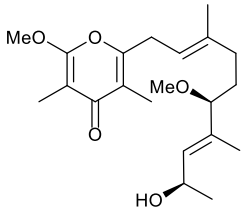
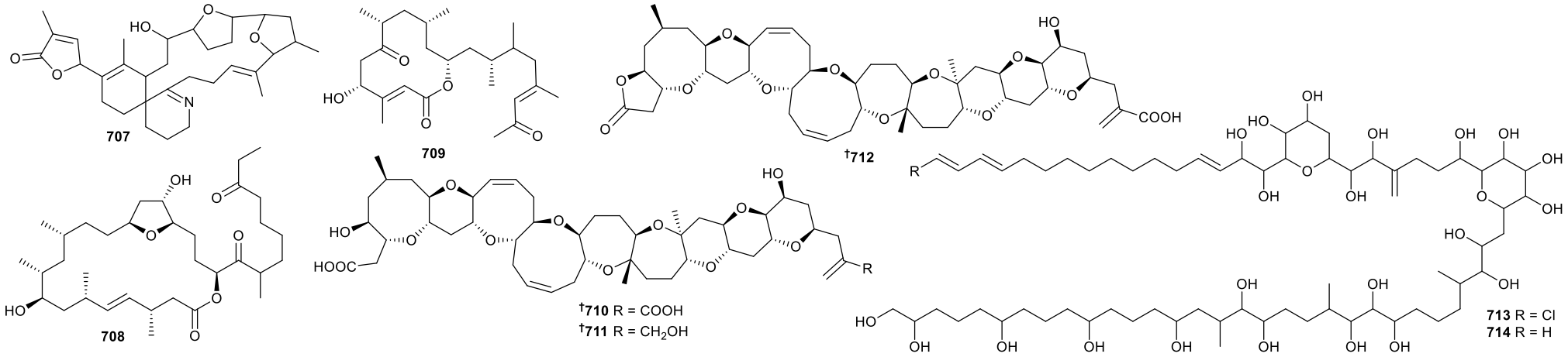


†706

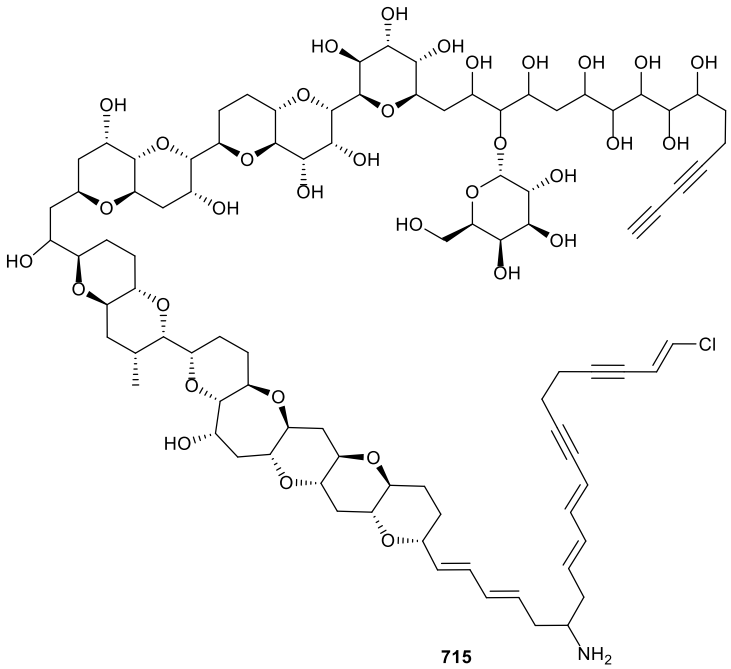
286 Cyanobacteria *Trichodesmium* sp., *Okeania* sp., *Oscillatoria* sp. // Coiba National Park, Panama // Medusamide A, a Panamanian cyanobacterial depsipeptide with multiple β-amino acids
704 // N // medusamide A // NT // Abs. config. assigned by degrad. and spectroscopic anal.

287 Cyanobacteria *Phormidium* spp. // * // Correction to caylobolide B, a macrolactone from symplostatin 1-producing marine cyanobacteria *Phormidium* spp. from Florida
705 // R // caylobolide B // * // *

293 Cyanobacteria *Leptolyngbya* sp. // * // Total synthesis and stereochemical determination of yoshinone A
706 // R // yoshinone A // * // Abs. config. assigned by total synth.



301 Miozoa *Alexandrium ostenfeldii* // Gotland, Sweden // Identification of gymnodimine D and presence of gymnodimine variants in the dinoflagellate *Alexandrium ostenfeldii* from the Baltic Sea
707 // N // gymnodimine D // NT // *
302 Miozoa *Amphidinium* sp. // Iriomote Is., Japan // Iriomoteolides-10a and 12a, cytotoxic macrolides from marine dinoflagellate *Amphidinium* species
708 // N // iriomoteolide-10a // mod. cytotox. vs 1 murine and 2 HTCLs // *
709 // N // iriomoteolide-12a // weak cytotox. vs 1 HTCL // *
303 Miozoa *Karenia brevisulcata* // Wellington Harbour, New Zealand // Brevisulcatic acids from a marine microalgal species implicated in a toxic event in New Zealand
710 // N // brevisulcatic acid-2 // * // *
711 // N // brevisulcatic acid-5 // cytotox. vs 1 HTCL // *
712 // N // brevisulcatic acid-7 // * // *
304 Miozoa *Karlodinium veneficum* // Yushan, P. R. China // Two new karlotoxins found in *Karlodinium veneficum* (strain GM2) from the East China Sea
713 // N // 4,5-dihydro-KmTx 2 // strong haemolytic activ vs erythrocytes // *
714 // N // 4,5-dihydro-dechloro-KmTx 2 // strong haemolytic activ vs erythrocytes // *



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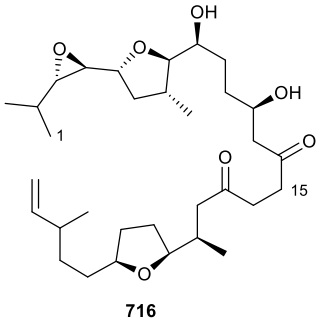

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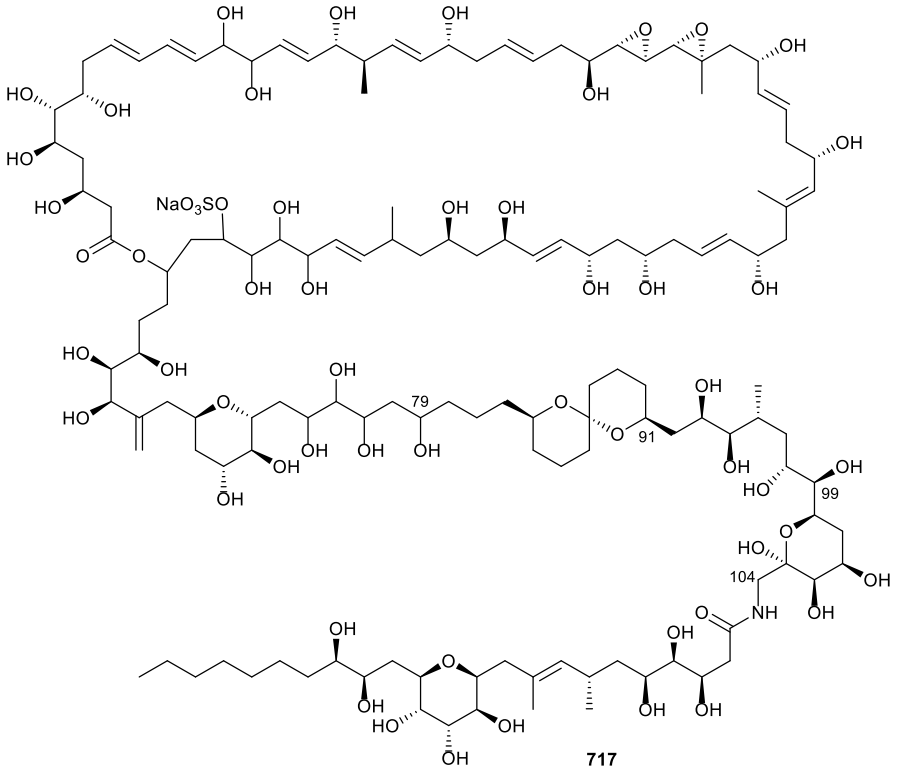
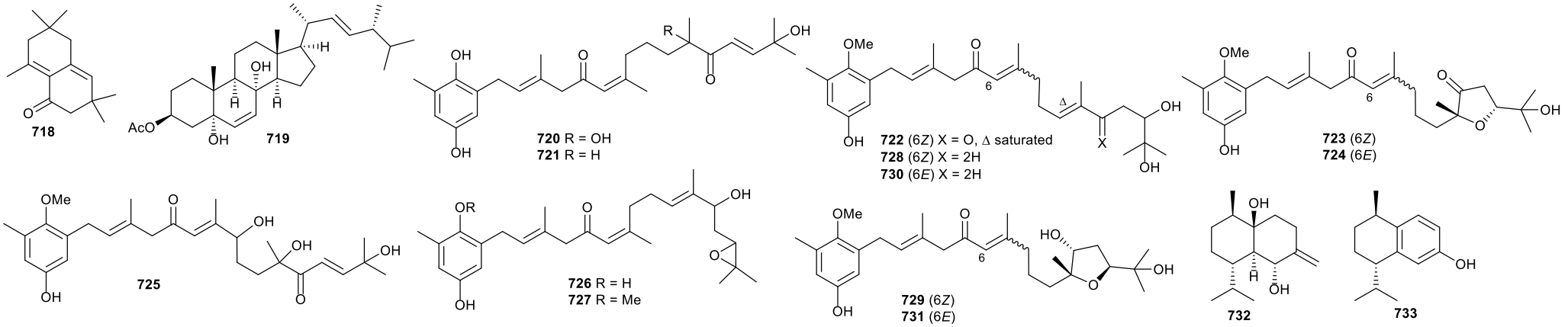


717

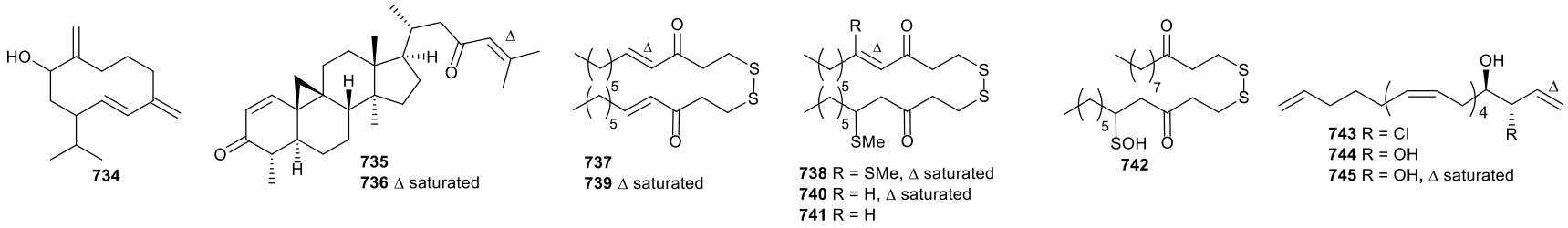
305 Haptophyta *Prymnesium parvum* // Danish strain ex culture collection // Chemodiversity of ladder-frame prymnesin polyethers in *Prymnesium parvum*
715 // N // prymnesin-B1 // cytotox. vs 1 cell line // *
307 Miozoa *Amphidinium* sp. // * // Stereodivergent synthesis and configurational assignment of the C1–C15 segment of amphirionin-5
716 // R // amphirionin-5 // * // *
309 Miozoa *Symbiodinium* sp. // * // Stereodivergent synthesis and stereochemical reassignment of the C79–C104 fragment of symbiodinolide
717 // R // symbiodinolide // * // *



313 Chlorophyta *Chlorella sorokiniana* // Taiwan // Four new compounds from edible algae *Cladosiphon okamuranus* and *Chlorella sorokiniana* and their bioactivities
718 // M // chlorellatin A // NT // *
719 // M // chlorellatin B // NT // *

321 Ochrophyta *Cytoseira usneoides* // Tarifa, Spain // Cystoseira usneoides: a brown alga rich in antioxidant and AI meroditerpenoids
720 // N // cystodione G // AO activ. 81% Trolox equiv.; AI activ. 81% inhib. of TNFα @ 10 µM // *
721 // N // cystodione H // AO activ. 77% Trolox equiv.; AI activ. 21-35% inhib. of TNFα @ 10 µM // *
722 // N // cystodione I // AO activ. 53% Trolox equiv.; AI activ. 21-35% inhib. of TNFα @ 8 µM // *
723 // N // cystodione J // AO activ. 62% Trolox equiv. // *
724 // N // cystodione L // AO activ. 50% Trolox equiv. // *
725 // N // cystodione M // AO activ. 67% Trolox equiv.; AI activ. 79% inhib. of TNFα @ 8 µM // *
726 // N // cystone A // NT // *
727 // N // cystone B // AO activ. 45% Trolox equiv.; AI activ. 21-35% inhib. of TNFα @ 8 µM // *
728 // N // cystone C // AO activ. 66% Trolox equiv.; AI activ. 59% inhib. of TNFα @ 5 µM // *
729 // N // cystone D // AO activ. 65% Trolox equiv.; AI activ. 21-35% inhib. of TNFα @ 8 µM // *
730 // N // cystone E // AO activ. 37% Trolox equiv.; AI activ. 21-35% inhib. of TNFα @ 10 µM // *
731 // N // cystone F // NT // *

322 Ochrophyta *Dictyopteris divaricata* // Yantai, China // Three cadinane derivatives from the marine brown alga *Dictyopteris divaricata*
732 // N // cadinan-4(15)-ene-1β,5α-diol // IA in AF and brine shrimp assays // *
733 // M // trans-3-norisocalamenen-4-ol // NT // *



323 Ochrophyta *Taonia atomaria* // Carqueiranne, France // Settlement inhib. of marine biofilm bacteria and barnacle larvae by compounds isolated from the Mediterranean brown alga *Taonia atomaria*

734 // N // germacra-4(15),5,10(14)-trien-9-ol // Settlement inhibtion EC_{50} = 21.9 µM (*A. amphitrite*); 16.6 µM (*B. perforatus*); LC_{50} range from 30.9-66.9 (*A. amphitrite*), 24.5-41.3 µM (*B. perforatus*) // *

313 Ochrophyta *Cladosiphon okamuranus,* Chlorophyta *Chlorella sorokiniana* // Taiwan // Four new compounds from edible algae *Cladosiphon okamuranus* and *Chlorella sorokiniana* and their bioactivities

735 // N // mozukulin A // no AI activ. // *

736 // N // mozukulin B // no A Iactiv. // *

324 Ochrophyta *Dictyopteris membranacea* // Gerolimenas Bay, Peloponnese, Greece // Disulfides with AIactiv. from the brown alga *Dictyopteris membranacea*

737 // N // * // IA in AB and AI assays // *

738 // N // * // * // *

739 // N // * // IA in AB and AI assays // *

740 // N // * // IA in AB assays; IC_{50} 3.5 µM in AI assay // *

741 // N // * // IA in AB and AI assays // *

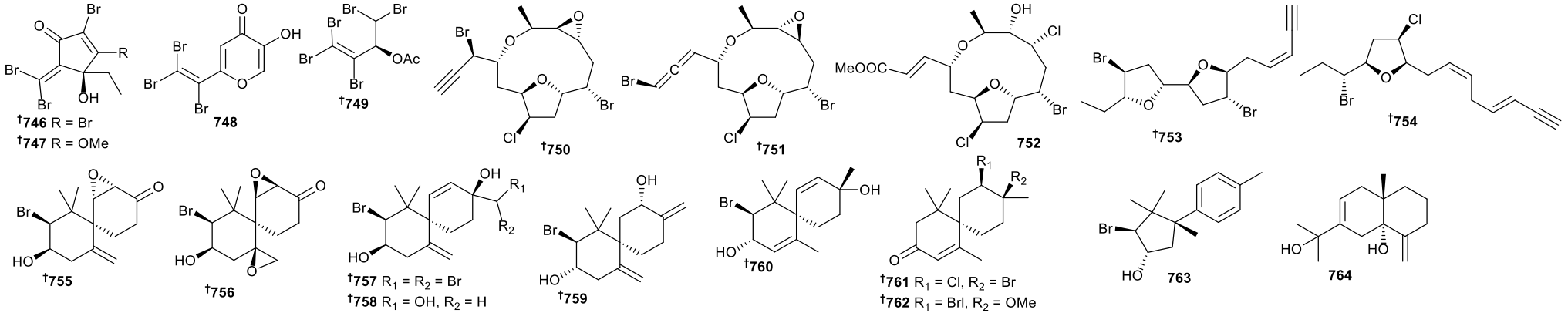
742 // N // * // * // *

325 Ochrophyta *Lobophora rosacea* // New Caledonia // Allelopathic interactions between the brown algal genus *Lobophora* (Dictyotales, Phaeophyceae) and scleractinian corals

743 // N // lobophorenol A // 40-80% suppression of coral (*Acropora muricata*) photosynth. efficiency // *

744 // N // lobophorenol B // 40-80% suppression of coral (*Acropora muricata*) photosynth. efficiency // *

745 // N // lobophorenol C // 40-80% suppression of coral (*Acropora muricata*) photosynth. efficiency // *



361 Rhodophyta *Ptilonia australasica* // Pearsons Point, Tasmania, Australia // Unique polybrominated hydrocarbons from the Australian endemic red alga *Ptilonia australasica*
746 // N // (4*S*)-ptilone A // IC_{50} 0.44 µM vs PC3 cells // *
747 // N // (4*S*)-ptilone B // * // *
748 // N // ptilone C // IC_{50} 10 µM vs PC3 cells // *
749 // N // (2*S*)-australasol A // * // *

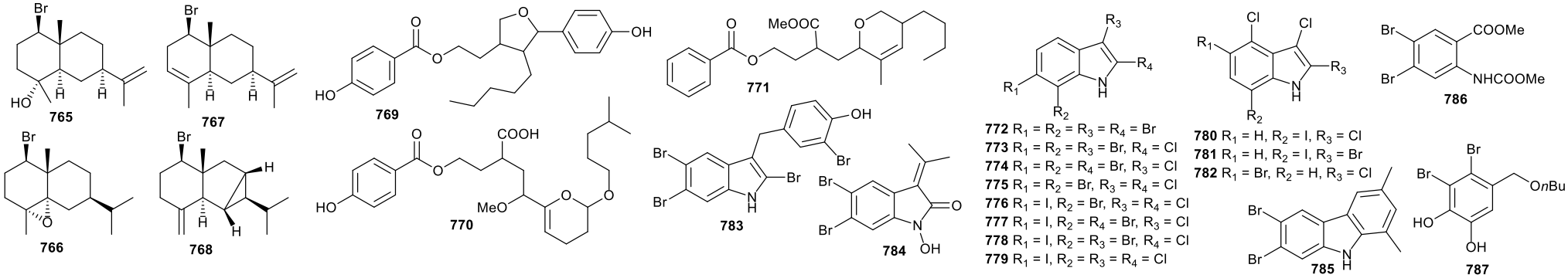
362 Rhodophyta *Laurencia marilzae* // Paraiso Floral, Tenerifé, Canary Is. // Additional insights into the obtusallene family: components of *Laurencia marilzae*
750 // N // marilzanin // * // *
751 // N // (12*S*,13*S*)-epoxyobtusallene IV // >70% induction of apoptosis of HepG2 cells at 50 µM // *
752 // N // * // * // *

365 Rhodophyta *Laurencia elata* // * // Determination of the absolute configuration of the pseudo-symmetric natural product elatenyne by the crystalline sponge method
753 // R // elatenyne // * // *

367 Rhodophyta *Laurencia*sp. // * // Substrate-controlled asymmetric total synthesis and structure revision of (−)-bisezakyne A
754 // R // (–)-bisezekayne A // * // *

368 Rhodophyta *Laurencia tristicha* // Hsiao Liuchiu Is., Taiwan // Halogenated sesquiterpenoids from the red alga *Laurencia tristicha* collected in Taiwan
755 // N // tristichone A // IA in AB, cytotox. and AI assays // *
756 // N // tristichone B // IA in AB, cytotox. and AI assays // *
757 // N // tristichol A // mod. AB and AI activ. // *
758 // N // tristichol B // IA in AB, cytotox. and AI assays // *
759 // N // tristichol C // IA in AB, cytotox. and AI assays // *
760 // N // tristichol D // IA in AB, cytotox. and AI assays // *
761 // N // tristichone C // IA in AB, cytotox. and AI assays // *
762 // N // tristichone D // IA in AB, cytotox. and AI assays // *
763 // N // 4α-hydroxybromocuparene // IA in AB, cytotox. and AI assays // *

369 Rhodophyta *Laurencia obtusa* // Jeddah, Saudi Arabia // The role of new eudesmane-type sesquiterpenoid and known eudesmane derivatives from the red alga *Laurencia obtusa* as potential antifungal–antitumour agents
764 // N // eudesma-4(15),7-diene-5,11-diol // MIC 2-6 µM vs some fungi and yeasts. IC_{50} 39.5 µM on MCF-7. // *



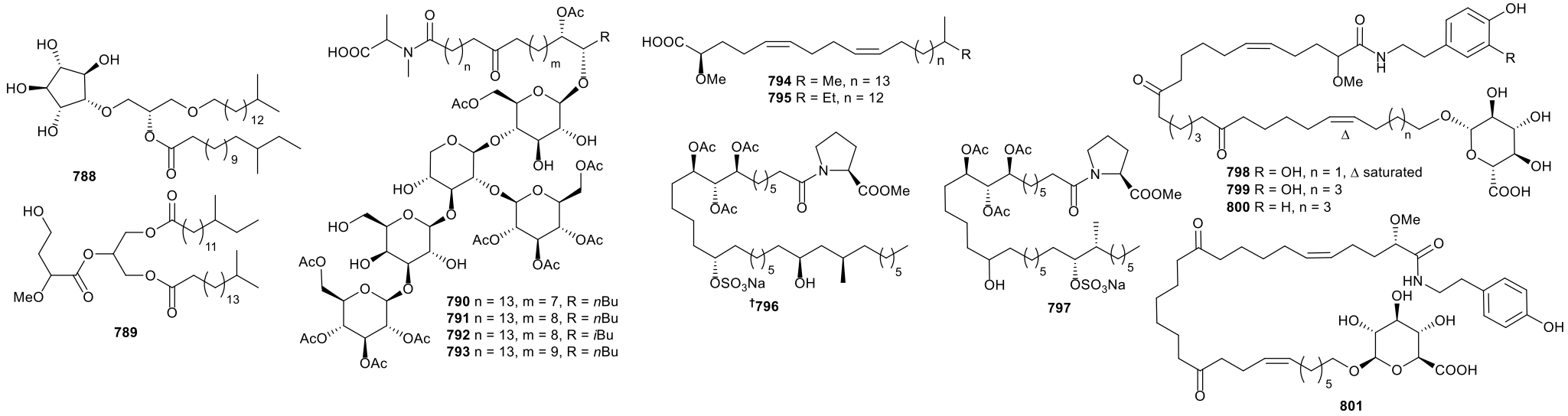
370 Rhodophyta *Laurencia pinnata* // Nanji Is., China // Halogenated eudesmane derivs. and other terpenes from the *Laurencia pinnata* and their chemotaxonomic significance
765 // N // 1β-bromoselin-11-en-4α-ol // * // *
766 // N // 1β-bromo-4α,5α-epoxyselinane // * // *
767 // N // 1β-bromoselin-3,11-diene // * // *
768 // N // 1β-bromo-6,8-cycloselin-4(15)-ene // * // *

371 Rhodophyta *Hypnea musciformis* // Gulf of Mannar // Characterization of substituted aryl meroterpenoids from red seaweed *Hypnea musciformis* as potential antioxidants
769 // N // * // DPPH radical scavenging IC_{50} 25 µM // *
770 // N // * // DPPH radical scavenging IC_{50} 322 µM // *
771 // N // * // DPPH radical scavenging IC_{50} 231 µM // *

372 Rhodophyta *Rhodophyllis membranacea* // Moa Point, Wellington, New Zealand // Polyhalogenated indoles from the red alga *Rhodophyllis membranacea*: the first isolation of bromo-chloro-iodo secondary metabolites
772 // N // * // IC_{50} vs HL-60 38 µM; IC_{50} vs *S. cerevisiae* 69 µM // *
773 // N // * // NT // *
774 // N // * // IC_{50} vs HL-60 78 µM; IC_{50} vs *S. cerevisiae* >83 µM // *
775 // N // * // IC_{50} vs HL-60 61 µM; IC_{50} vs *S. cerevisiae* 63 µM // *
776 // N // * // IC_{50} vs HL-60 49 µM; IC_{50} vs *S. cerevisiae* 39 µM // *
777 // N // * // NT // *
778 // N // * // NT // *
779 // N // * // NT // *
780 // N // * // NT // *
781 // N // * // NT // *
782 // N // * // NT // *

373 Rhodophyta *Laurencia similis* // S. China Sea // Four new minor brominated indole related alkaloids with AB activ. from Laurencia similis
783 // N // * // MIC 2–8 µg/mL vs a range of Gram-positive and -negative bact. // *
784 // N // * // MIC 12.5–50 µg/mL vs a range of Gram-positive and -negative bact. // *
785 // N // * // IA // *
786 // N // * // IA // *

374 Rhodophyta *Odonthalia corymbifera* // Hakodate, Japan // Inhibition of algal bromophenols and their related phenols against glucose 6-phosphate dehydrogenase
787 // N // * // weak activ. vs *Leuconostoc mesenteroides* G6P dehydrogenase // *



394 Porifera *Theonella mirabilis* // Sharm El-Sheikh, Egypt // Mirabolides A and B; new cytotoxic glycerides from the Red Sea sponge *Theonella mirabilis*
788 // N // mirabolide A // weak activ. vs 1 HTCL // *
789 // N // mirabolide B // weak activ. vs 1 HTCL // *

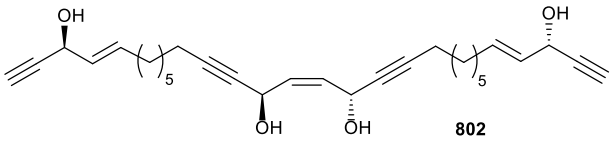
395 Porifera *Erylus deficiens* // Offshore seamount, Gorringe Bank, Portugal // Erylusamides: novel atypical glycolipids from *Erylus* cf. *deficiens*
790 // N // erylusamide A // mixt. of all four cpds weak inhib. IDO // *
791 // N // erylusamide B // mixt. of all four cpds weak inhib. IDO // *
792 // N // erylusamide C // mixt. of all four cpds weak inhib. IDO // *
793 // N // erylusamide D // mixt. of all four cpds weak inhib. IDO // *

396 Porifera *Asteropus niger* // Monito Is., Puerto Rico // Novel very long-chain α-methoxylated Δ5,9 fatty acids from the sponge *Asteropus niger* are effective inhib.s of topoisomerases IB
794 // N // * // mod. cytotox. vs 2 HTCLs and *Leishmania infantum* cell lines // Insep. mixt.
795 // N // * // mod. cytotox. vs 2 HTCLs and *Leishmania infantum* cell lines // Insep. mixt.

397 Porifera *Theonella swinhoei* // Yaku-Shinsone seamount, Japan // Yakushinamides, polyoxygenated FA amides that inhibit HDACs and SIRTs, from the marine sponge *T. swinhoei*
796 // N // yakushinamide A // mod. inhib. of 6 histone deacetylases (IC_{50} = 25 - >200 µM) // Abs. config. by Marfey's and Mosher's methods, plus compar. to synth. standards.
797 // N // yakushinamide B // mod. inhib. of 6 histone deacetylases (IC_{50} = 29 - 150 µM) // *

398 Porifera *Myxilla incrustans* // Eyjafjordur, Iceland // Immunomod. *N*-acyl dopamine glycosides from the Icelandic marine sponge *Myxilla incrustans* collected at a hydrothermal vent site
798 // N // myxillin A // Immunomodulatory (decreased IL-12p40 secretion at 10 µg/mL) from dendritic cells // First N-acyl-dopamine-glycosides from marine invertebrates
799 // N // myxillin B // Immunomodulatory (decreased IL-10 secretion at 10 µg/mL) from dendritic cells // First N-acyl-dopamine-glycosides from marine invertebrates, insep. from **800**
800 // N // myxillin C // Immunomodulatory (decreased IL-10 secretion at 10 µg/mL) from dendritic cells // First N-acyl-dopamine-glycosides from marine invertebrates, insep. from **799**

399 Porifera *Melonanchora kobjakovae* // Urup Is., Russia // Melonoside A: an ω-glycosylated fatty acid amide from the Far Eastern marine sponge *Melonanchora kobjakovae*
801 // N // melonoside A // inhib. autophagy in cisplatin-resistant NCCIT-R cancer cells at 10 µM // Abs. config. estab. by CD and GCMS anal. of hydrolysate



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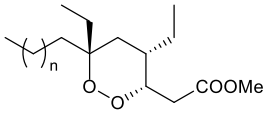
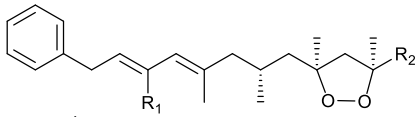
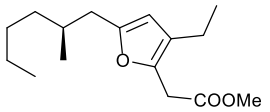


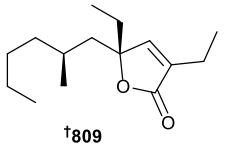
†**803** n = 3
804 n = 4



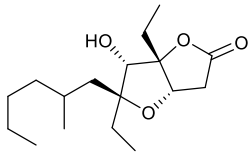
†**805** R_1 = Me, R_2 = CH_2COOH
†**806** R_1 = Me, R_2 = (*E*)CH=CHCOOH
†**807** R_1 = H, R_2 = (*E*)CH=CHCOOH



†**808**



†**809**



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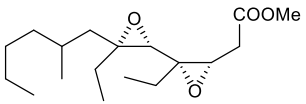

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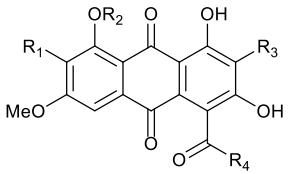


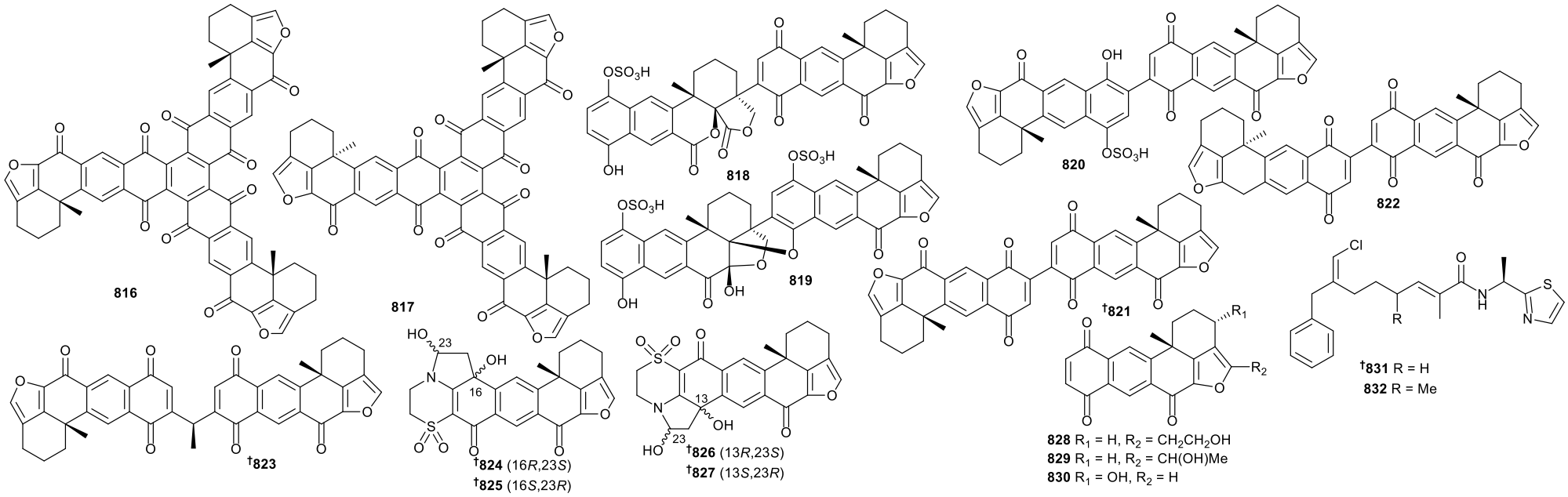
812 R_1 = OMe, R_2 = R_3 = H, R_4 = *n*Pr
813 R_1 = OMe, R_2 = H, R_3 = Br, R_4 = Me
814 R_1 = OMe, R_2 = H, R_3 = Br, R_4 = *n*Pr
815 R_1 = R_2 = H, R_3 = Br, R_4 = *n*Pr

400 Porifera *Halichondria panicea* // Iriomote Is., Okinawa, Japan // Isopetrosynol, a new PTP1B inhib., from the marine sponge *Halichondria* cf. panicea collected at Iriomote Island
802 // N // isopetrosynol // weak inhib. of PTP1B (IC_{50} = 8.2 µM) // Supposed mix of enantiomers

401 Porifera *Plakortis zyggompha*, *P. halichondrioides*, *Xestospongia deweerdtae* // Plana Cays, Bahamas // Peroxide NPs from *Plakortis zyggompha* and the sponge association *Plakortis halichondrioides–Xestospongia deweerdtae*: AF activ. vs *Cryptococcus gattii*
803 // N // 6-epi-7,8-dihydroplakortide K // IA in AF testing // Abs. config. estab. by Moshers method
804 // N // plakortide AA // IA in AF testing // *
805 // N // plakinic acid N // IA in AF testing // Abs. config. estab. by chiroptical methods and DFT calc.
806 // N // plakinic acid O // IA in AF testing // Abs. config. estab. by chiroptical methods and DFT calc.
807 // N // plakinic acid P // IA in AF testing // Abs. config. estab. by chiroptical methods and DFT calc.

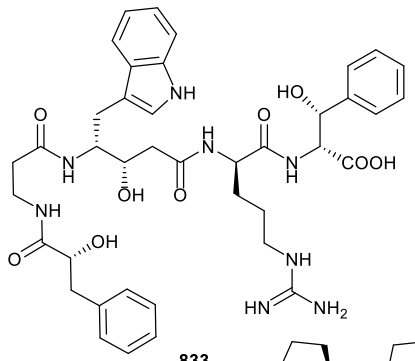
402 Porifera *Plakortis simplex* // Yongxing Is., S. China Sea // PPAR modulating polyketides from a Chinese *Plakortis simplex* and clues on the origin of their chemodiversity
808 // N // plakorsin D methyl ester // Selective inducer of PPAR-γ at 12.5 µM // Possible artefact of extraction in MeOH, abs. config. estab. by chemical interconversion
809 // N // plakilactone I // NT // Abs. config. estab. by chemical interconversion
810 // N // plakortone Q // NT // *
811 // N // plakdiepoxide // Selective inducer of PPAR-γ at 50 µM // First vicinal diepoxide polyketide known

403 Porifera *Clathria hirsuta*, Echinodermata *Comatula rotalaria* // Cooktown, Queensland, Australia // Rhodocomatulin-type anthraquinones from the Australian marine invertebrates *Clathria hirsuta* and *Comatula rotalaria*
812 // N // 6-methoxyrhodocomatulin 7-dimethyl ether // NT // Significant difficulty in NMR assignment due to low H:C ratio
813 // N // 3-bromo-6-methoxy-12-desethylrhodocomatulin 7-methyl ether // NT // Significant difficulty in NMR assignment due to low H:C ratio
814 // N // 3-bromo-6-methoxyrhodocomatulin 7-methyl ether // NT // Significant difficulty in NMR assignment due to low H:C ratio
815 // N // 3-bromorhodocomatulin 7-methyl ether // NT // Significant difficulty in NMR assignment due to low H:C ratio



404 Porifera *Petrosia alfiani* // Ti Toi, N. Sulawesi, Indonesia // Petroquinones: trimeric and dimeric xestoquinone derivatives isolated from the marine sponge *Petrosia alfiani*
816 // N // petroquinone A // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 0.75 μM) // Xestoquinone trimer
817 // N // petroquinone B // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 0.36 μM) // Xestoquinone trimer
818 // N // petroquinone C // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 2.0 μM) // Xestoquinone dimer
819 // N // petroquinone D // weak inhib. of ubiquitin-specific protease-7 (USP-7, IC_{50} > 5 μM) // Xestoquinone dimer
820 // N // petroquinone E // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 1.2 μM) // Xestoquinone dimer
821 // N // petroquinone F // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 0.35 μM) // Abs. config. estab. by chemical interconversion and ECD, xestoquinone dimer
822 // N // petroquinone G // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 0.47 μM) // Xestoquinone dimer
823 // N // petroquinone H // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 0.49 μM) // Abs. config. estab. by compar. of calc. and expt ECD spectra, xestoquinone dimer
824 // N // petroquinone I // weak inhib. of ubiquitin-specific protease-7 (USP-7, IC_{50} > 5 μM) // Abs. config. estab. by compar. of calc. and expt ECD spectra
825 // N // petroquinone J // weak inhib. of ubiquitin-specific protease-7 (USP-7, IC_{50} > 5 μM) // Abs. config. estab. by compar. of calc. and expt ECD spectra
826 // N // petroquinone K // weak inhib. of ubiquitin-specific protease-7 (USP-7, IC_{50} > 5 μM) // Abs. config. estab. by compar. of calc. and expt ECD spectra
827 // N // petroquinone L // weak inhib. of ubiquitin-specific protease-7 (USP-7, IC_{50} > 5 μM) // Abs. config. estab. by compar. of calc. and expt ECD spectra
828 // N // 1-(2-hydroxyethyl)xestoquinone // inhib. ubiquitin-specific protease-7 (USP-7, IC_{50} = 1.4 μM) //
829 // N // 1-(1-hydroxyethyl)-xestoquinone // * // insep. mixt.
830 // N // 3S-3-hydroxyxestoquinone // NT // *

405 Porifera *Smenospongia conulosa* // Little Inagua Is., Bahamas // Chlorinated thiazole-containing polyketide-peptides from the Caribbean sponge *Smenospongia conulosa*: structure elucidation on microgram scale
831 // N // conulothiazole A // NT // Structural elucidation carried out on 36 μg of cpd, abs. config. by Marfeys method on only 4 μg of cpd, hybrid NRPS/PKS
832 // N // conulothiazole B // NT // Structural elucidation carried out on 41 μg of cpd, abs. config. by Marfeys method on only 4 μg of cpd, hybrid NRPS/PKS



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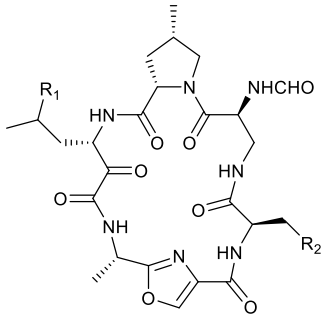
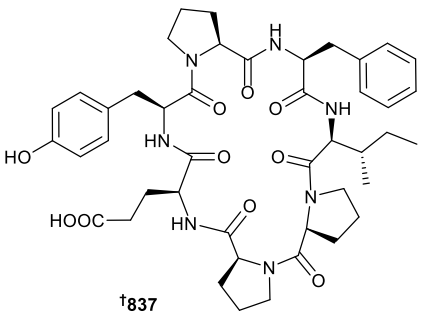
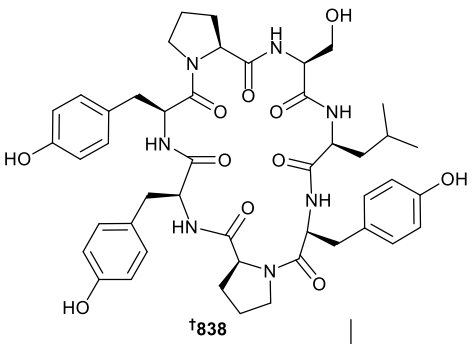


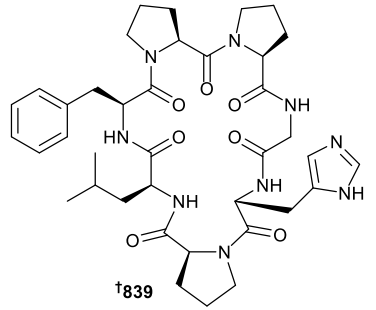
†834 R_1 = H, R_2 = Me
†835 R_1 = H, R_2 = OH
†836 R_1 = Me, R_2 = OH



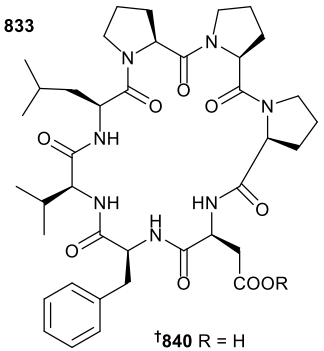
†837



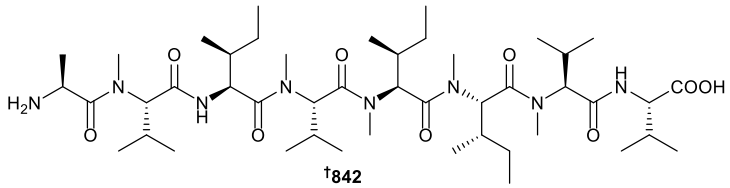
†838



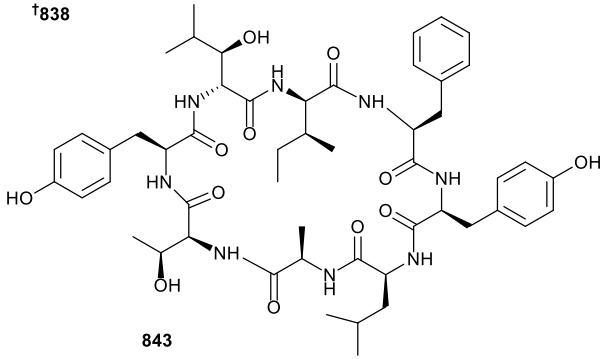
†839



†840 R = H
†841 R = Me



†842



843

407 Porifera *Discodermia* sp // Shikine-jima Is., Tokyo, Japan // Metagenomic analysis of the sponge *Discodermia* reveals the prodn. of the cyanobact. NP kasumigamide by 'Entotheonella'
833 // M // kasumigamide // * // Mixed PKS/NRPS product originally isol. from freshwater cyanobact., metagenomic anal. shows prod. by Entotheonella

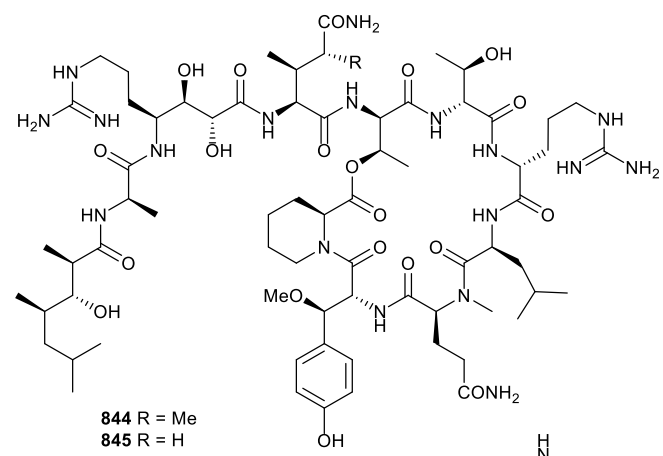
408 Porifera *Theonella swinhoei* // Hachijo Is., Japan // Nazumazoles D–F, cyclic pentapeptides that inhibit chymotrypsin, from the marine sponge *Theonella swinhoei*
834 // N // nazumazole D // IA vs P388, inhib. chymotrypsin (IC_{50} = 2 µM) // Abs. config. estab. by Marfey's Method
835 // N // nazumazole E // IA vs P388, inhib. chymotrypsin (IC_{50} = 3 µM) // Abs. config. estab. by Marfey's Method
836 // N // nazumazole F // IA vs P388, inhib. chymotrypsin (IC_{50} = 10 µM) // Abs. config. estab. by Marfey's Method

409 Porifera *Stylissa carteri* // Bangka Is., N. Sulawesi, Indonesia // Carteritins A and B, cyclic heptapeptides from the marine sponge *Stylissa carteri*
837 // N // carteritin A // mod. activ. vs 2 HTCLs and RAW264 cells (IC_{50} = 0.7 - 1.5 µM) // Abs. config. estab. by Marfey's method
838 // N // carteritin B // IA // Abs. config. estab. by Marfey's method

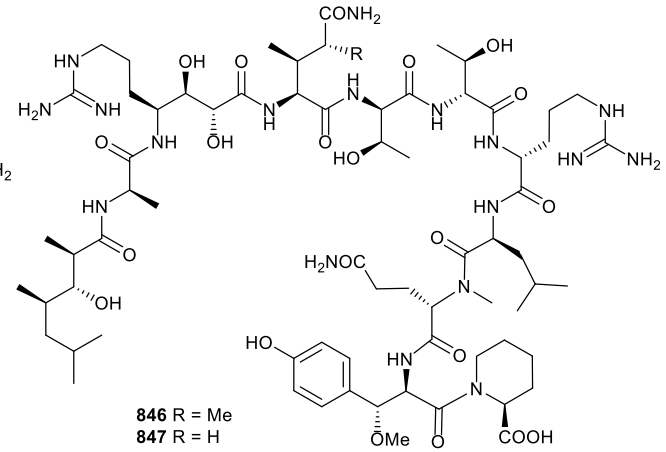
410 Porifera *Stylissa massa* // Hainan Is., P. R. China // Stylissatins B–D, cycloheptapeptides from the marine sponge *Stylissa massa*
839 // N // stylissatin B // mod. activ. vs 6 HTCLs // Found using LCMS/NMR guided isolation; abs. config. estab. by Marfey's method
840 // N // stylissatin C // IA // Found using LCMS/NMR guided isolation; abs. config. estab. by Marfey's method
841 // N // stylissatin D // IA // Found using LCMS/NMR guided isolation; abs. config. estab. by Marfey's method

411 Porifera *Cribochalina* sp. // Pemba Is.,Tanzania // Pembamide, a *N*-methylated linear peptide from a sponge *Cribrochalina* sp.
842 // N // pembamide // mod. activ. vs 3 HTCLs // Abs. config. estab. by Marfey's Method

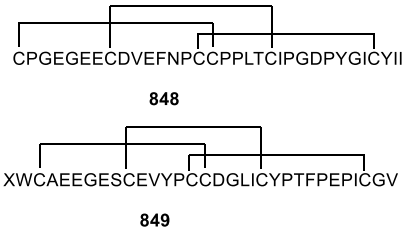
412 Porifera *Callyspongia* sp. // Obhur, Saudi Arabia // Callyptide A, a new cytotoxic peptide from the Red Sea marine sponge *Callyspongia* species
843 // N // callyptide A // mod. activ. vs 3 HTCLs // *

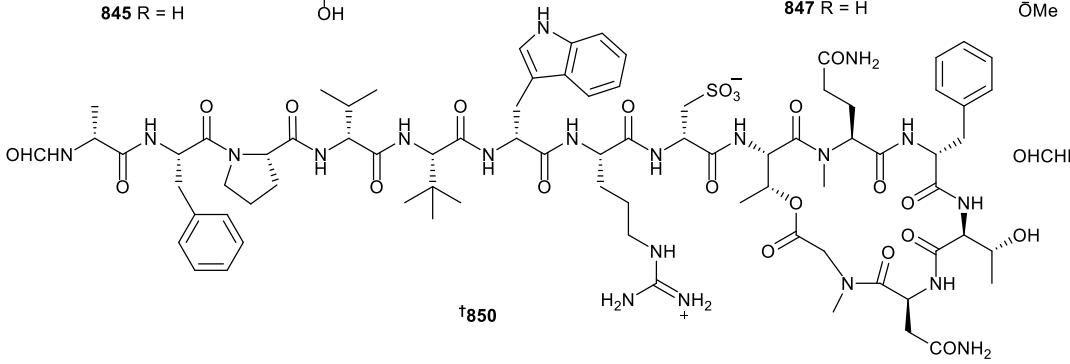


844 R = Me
845 R = H

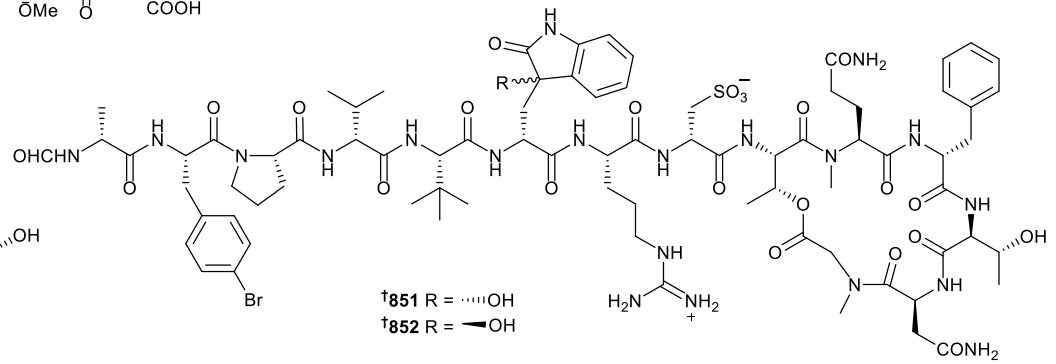


846 R = Me
847 R = H





†**850**

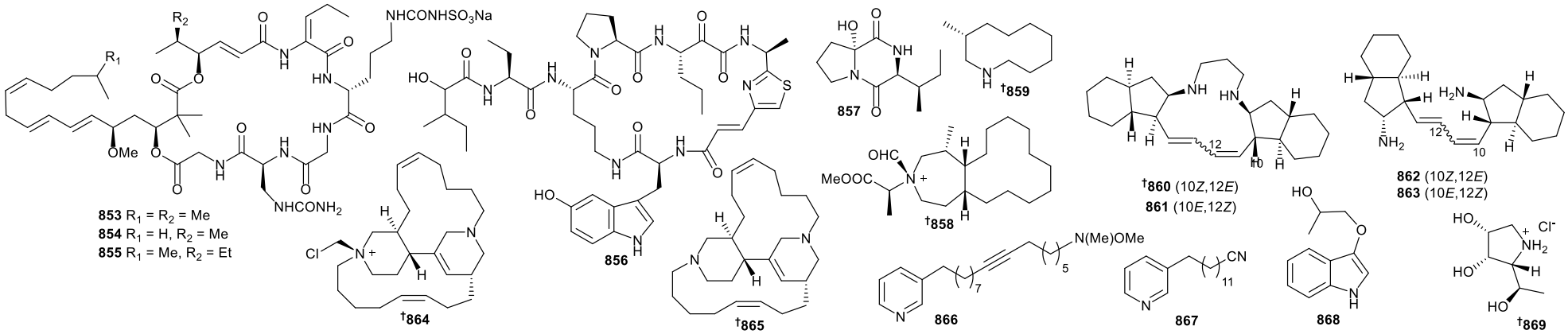


†**851** R = ····OH
†**852** R = ◄OH

413 Porifera *Asteropus* sp. // Mary Is., Russell group, Solomon Is. // New cytotoxic callipeltins from the Solomon Island marine sponge *Asteropus* sp.
844 // N // callipeltin N // potent activ. vs 4 HTCLs // SAR suggested by 3-methytl-Gln in 1 and 2
845 // N // callipeltin O // potent activ. vs 4 HTCLs // SAR suggested by 3-methytl-Gln in 1 and 2
846 // N // callipeltin P // IA vs 4 HTCLs // *
847 // N // callipeltin Q // IA vs 4 HTCLs // *

414 Porifera *Asteropus* sp. // Geoje Is., Korea // Stable and biocompatible cysteine knot peptides from the marine sponge *Asteropus* sp.
848 // N // asteropsin F // IA // Cysteine knot extremely resistant to heat and enzymatic degrad.
849 // N // asteropsin G // IA // Cysteine knot extremely resistant to heat and enzymatic degrad.

415 Porifera *Petrosia* sp. // Youngdeok-Gun, East Sea, Republic of Korea // The halicylindramides, farnesoid X receptor antagonizing depsipeptides from a *Petrosia* sp. marine sponge
850 // N // halicylindramide F // inhib. hum. farnesoid X receptor (IC_{50} = 6.0 µM), IA vs 1 HTCL // Abs. config. estab. with Marfey's method
851 // N // halicylindramide G // IA vs hum. farnesoid X receptor and 1 HTCL // Abs. config. estab. with Marfey's method
852 // N // halicylindramide H // IA vs hum. farnesoid X receptor and 1 HTCL // Abs. config. estab. with Marfey's method



417 Porifera *Discodermia kiiensis* // Nakagi, Shizuoka, Japan // Sulfoureido lipopeptides from the marine sponge *Discodermia kiiensis*
853 // N // sulfolipodiscamide A // mod. activ. vs P388, IA vs 1 HTCL // Known lipodiscamide A may be degrad. product, 2.3x more active than lipodiscamide A
854 // N // sulfolipodiscamide B // weak activ. vs P388, IA vs 1 HTCL // Known lipodiscamide B may be degrad. product
855 // N // sulfolipodiscamide C // weak activ. vs P388, IA vs 1 HTCL // Known lipodiscamide C may be degrad. product

418 Porifera *Plakina jamaicensis* // Plana Cays, Bahamas // Jamaicensamide A, a peptide containing β-amino-α-keto and thiazole-homologated η-AA residues from sponge *P. jamaicensis*
856 // N // jamaicensamide A // NT // Only 33 µg isol.; given structural similarity to other Lithistid peptides, likely produced by endosymbiont Entotheonella

419 Porifera *Callyspongia* sp. // Hainan Is., P. R. China // A new diketopiperazine from the marine sponge *Callyspongia* species
857 // N // cyclo-(6-hydroxy-Pro-Ile) // IA // *

420 Porifera *Callyspongia* sp. // Chuuk Is., Federated States of Micronesia // Callyazepin and (3*R*)-methylazacyclodecane, nitrogenous macrocycles from a *Callyspongia* sp. sponge
858 // N // callyazepin // mod. activ. vs 2 HTCLs, IA vs various Gram positive and negative bact. // Abs. config. estab. by Moshers method
859 // N // (3R)-methylazacyclodecane // mod. activ. vs 2 HTCLs, IA vs various Gram positive and negative bact. // Abs. config. estab. by chiroptical methods and DFT calc.

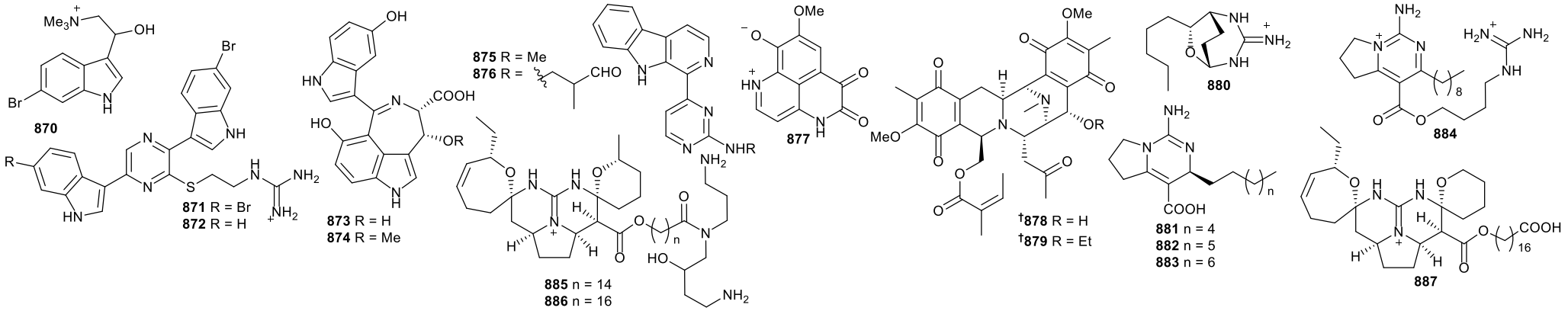
421 Porifera *Halichondria panicea* // Iriomote Is., Okinawa, Japan // Haliclonadiamine derivatives and 6-*epi*-monanchorin from the marine sponge *Halichondria panicea* from Iriomote Island
860 // N // (10Z,12E)-haliclonadiamine // 12 mm zone vs *M. smegmatis* (10 µg/disk), IA vs 1 HTCL // Abs. config. estab. by chiroptical methods and DFT calc.
861 // N // (10E,12Z)-haliclonadiamine // 7 mm zone vs *M. smegmatis* (10 µg/disk), weak activ. vs 1 HTCL // *
862 // N // halichondriamine A // 8 mm zone vs *M. smegmatis* (10 µg/disk), weak activ. vs 1 HTCL // *
863 // N // halichondriamine B // 7 mm zone vs *M. smegmatis* (10 µg/disk), weak activ. vs 1 HTCL // *

423 Porifera *Acanthostrongylophora ingens* // Langkai Is., S. Sulawesi, Indonesia //
864 // N // chloromethylhalicyclamine B // Selective inhib. of CK1 kinase (IC_{50} = 6 µM) while IA vs 8 other kinases. Cl atom enhances binding compared with IA parent halicyclamine B // Proven artefact of extraction with DCM, abs. config. estab. by comp. of expt. and calc. ECD spectra
865 // R // halicyclamine B // IA vs 8 kinases // Abs. config. estab. by comp. of expt. and calc. ECD spectra

424 Porifera *Xestospongia* sp. // Java Is., Indonesia // N-Methylniphatyne A, a new 3-alkylpyridine alkaloid as an inhib. of the cancer cells adapted to nutrient starvation, *Xestospongia* sp.
866 // N // N-methylniphatyne A // Selective inhib. of PANC-1 cells under nutrient deficient conditions // Total synth. also achieved

425 Porifera *Haliclona* sp. // Indonesia Sea // A new 3-alkylpyridine alkaloid from the marine sponge Haliclona sp. and its cytotoxic activ.
867 // N // 13-(pyridin-3-yl)tridecanenitrile // weak activ. vs 3 HTCLs // *

427 Porifera *Haliclona* sp. // SharmObhur, Jeddah, Saudi Arabia // Studies on the red sea sponge *Haliclona* sp. for its chemical and cytotoxic properties
868 // N // 1-(1H-indol-2-yloxy)propan-3-ol // weak active vs 3 HTCLs // *
869 // M // pyrrolidine-(1-hydroxyethyl)-3,4-diol // weak active vs 3 HTCLs // Abs. config. estab. by X-ray cryst., known synth.



428 Porifera *Geodia barretti* // Dredge (199 m) at Varangerfjorden, Norway // Marine AChE inhib.s isolated from Geodia barretti: natural cpds and their synth. analogs
870 // N // * // IA as AChE inhib. // *

429 Porifera *Lipastrotethya* sp. // Dredging (-185 - 213 m), Kurose, Japan // Dragmacidins G and H, bisindole alkaloids tethered by a guanidino ethylthiopyrazine moiety, from a *Lipastrotethya* sp. marine sponge
871 // N // dragmacidin G // mod. activ. vs 1 HTCL // unlikely to be NRPS derived
872 // N // dragmacidin H // mod. activ. vs 1 HTCL // unlikely to be NRPS derived

430 Porifera *Hyrtios* sp. // Unten Port, Okinawa, Japan // Hyrtinadines C and D, new azepinoindole-type alkaloids from a marine sponge *Hyrtios* sp.
873 // N // hyrtinadine C // weak AF (IC_{50} = 32 µg/mL vs *A. niger*) // *
874 // N // hyrtinadine D // weak AB (MIC = 16 µg/mL vs *E. coli*, *B. subtilis*) // *

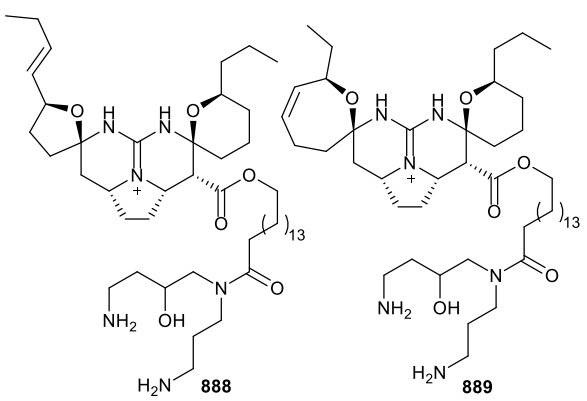
431 Porifera *Acanthostrongylophora ingens* // Sulawesi Is., Indonesia // Ingenines C and D, new cytotoxic pyrimidine-β-carboline alkaloids from the Indonesian *A. ingens*
875 // N // ingenine C // IC_{50} = 4.3 - 6.1 µM vs 2 HTCLs // *
876 // N // ingenine D // IC_{50} = 2.9 - 3.4 µM vs 2 HTCLs // *

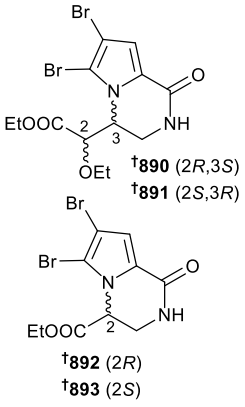
432 Porifera *Aaptos aaptos* // Vietnam // *N*-Demethylaaptanone, a new congener of aaptamine alkaloids from the Vietnamese marine sponge *Aaptos aaptos*
877 // N // *N*-demethylaaptanone // * // *

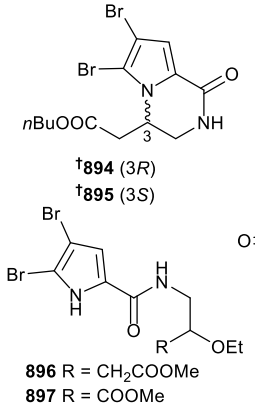
433 Porifera *Xestospongia* sp. // Xiamo Is., Hainan Province, China // Bioact. isoquinolinequinone alkaloids from S China Sea nudibranch *J. funebris* and its sponge-prey *Xestospongia* sp.
878 // N // fennebricin C // IC_{50} = 9.7 µM vs NF-kB, IA vs 2 HTCLs // anal. of predatory nudibranch *Jorunna funebris* found related cpds in mantle tissue
879 // N // fennebricin D // IC_{50} = 5.7 µM vs NF-kB, IA vs 2 HTCLs // anal. of predatory nudibranch *Jorunna funebris* found related cpds in mantle tissue

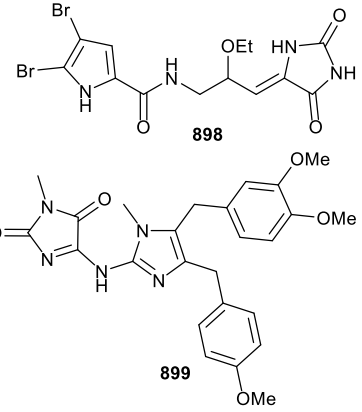
421 Porifera *Halichondria panicea* // Iriomote Is., Okinawa, Japan // Haliclonadiamine derivatives and 6-*epi*-monanchorin from the marine sponge *Halichondria panicea* frm Iriomote Island
880 // N // 6-epi-monanchorin // IA vs *M. smegmatis* and 1 HTCL // *

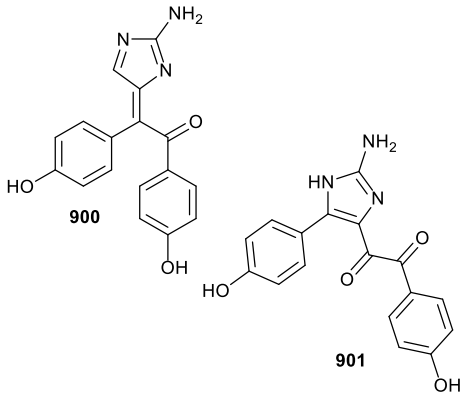
434 Porifera *Monanchora* sp. // Hiva Oa, Marquesas Is, French Polynesia // Cytotoxic guanidine alkaloids from a French Polynesian *Monanchora* n. sp. sponge
881 // N // monanchoradin A // mod. activ. vs 1 HTCL // First crambescin deriv. lacking 4-guanidinobutyl ester side chain
882 // N // monanchoradin B // NT // First crambescin deriv. lacking 4-guanidinobutyl ester side chain
883 // N // monanchoradin C // mod. activ. vs 1 HTCL // First crambescin deriv. lacking 4-guanidinobutyl ester side chain
884 // N // dehydrocrambescin A2 418 // potent activ. vs 1 HTCL // *
885 // N // crambescidin 786 // potent activ. vs 1 HTCL // *
886 // N // (−)-crambescidin 814 // potent activ. vs 1 HTCL // *
887 // N // 20-norcrambescidic acid // potent activ. vs 1 HTCL // *









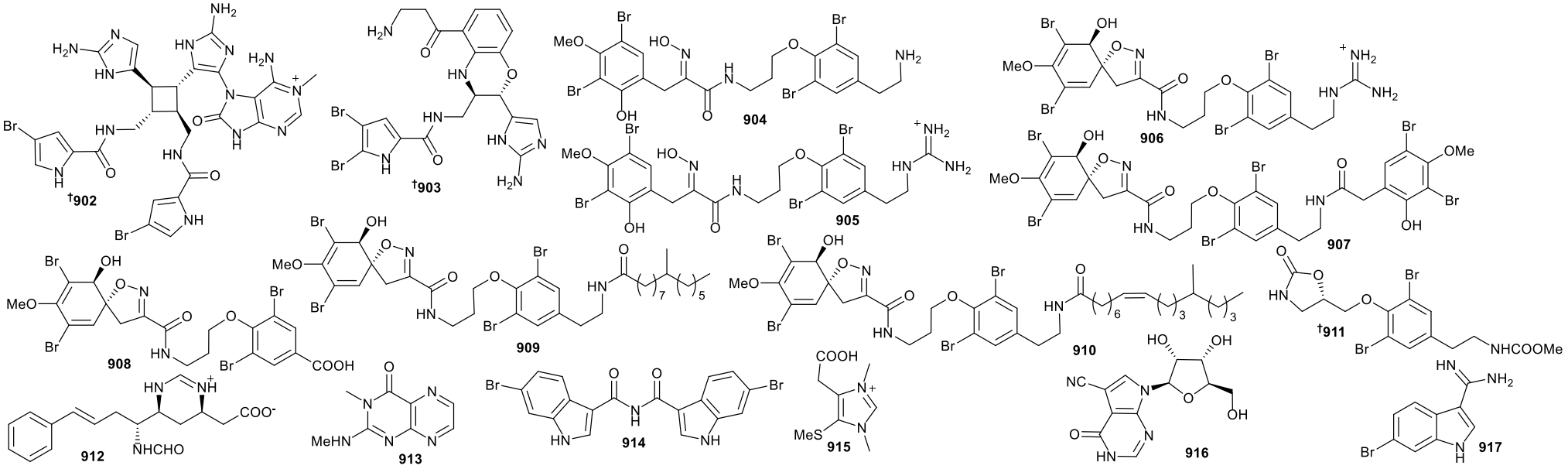


435 Porifera *Monanchora pulchra* // Russia // Monanchoxymycalins A and B, new hybrid pentacyclic guanidine alkaloids from the Far-Eastern marine sponge *Monanchora pulchra*
888 // N // monanchoxymycalin A // potent activ. vs 2 HTCLs // *
889 // N // monanchoxymycalin B // potent activ. vs 2 HTCLs // *

436 Porifera *Agelas* sp. // Yongxing Is. S. China Sea // AF bromopyrrole alkaloids from the South China Sea sponge *Agelas* sp.
890 // N // (+)-longamide D // weak AF (*Candida elegans*) // isol. as racemate, abs. config. estab. by expt. and calc. ECD
891 // N // (–)-longamide D // * // isol. as racemate, abs. config. estab. by expt. and calc. ECD
892 // N // (+)-longamide E // * // isol. as racemate, abs. config. estab. by expt. and calc. ECD
893 // N // (–)-longamide E // weak AF (*Candida elegans*) // isol. as racemate, abs. config. estab. by expt. and calc. ECD
894 // N // (+)-longamide F // weak AF (*Candida elegans*) // isol. as racemate, abs. config. estab. by expt. and calc. ECD
895 // N // (–)-longamide F // * // isol. as racemate, abs. config. estab. by expt. and calc. ECD
896 // N // (±)-3-oxethyl-4-[1-(4,5-dibromopyrrole-2-yl)-formamido]-butanoic acid methyl ester // * // isol. as racemate
897 // N // (±)-2-oxethyl-3-[1-(4,5-dibromopyrrole-2yl)-formamido]-methyl proprionate // * // isol. as racemate
898 // N // 9-oxethyl-mukanadin F // * // *

437 Porifera *Pericharax heteroraphis* // Yongxing Is., China // Imidazole alkaloids from the South China Sea sponge *Pericharax heteroraphis* and their cytotoxic and antiviral activities
899 // N // naamidine J // weak activ. vs 1 HTCL, IA vs 3 others. // *

438 Porifera *Lissodendoryx fibrosa* // Ambon, Indonesia // Lissodendrins A and B: 2-aminoimidazole alkaloids from the marine sponge *Lissodendoryx* (*Acanthodoryx*) fibrosa
900 // N // lissodendrin A // IA vs L5178Y cells // Unusal to find 2-aminoimidazole from Demospongiae
901 // N // lissodendrin B // IA vs L5178Y cells // Rare Hydroxyphenylglyoxal motif. Unusal to find 2-aminoimidazole from Demospongiae



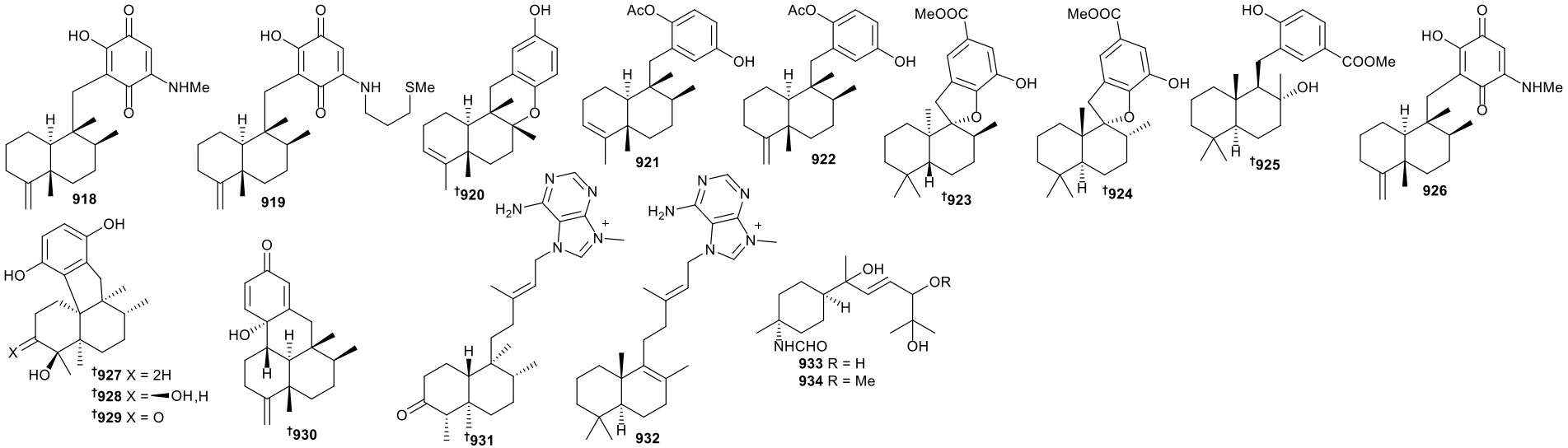
439 Porifera *Agelas sceptrum* // Plana Cay, Bahamas // Hybrid pyrrole–imidazole alkaloids from the sponge *Agelas sceptrum*
902 // N // 15′-oxoadenosceptrin // IA as AM // connect. plus abs. config. estab. by compar. of expt and calc. spectral data from DFT
903 // N // decarboxyagelamadin C // IA as AM // connect. plus abs. config. estab. by compar. of expt and calc. spectral data from DFT

440 Porifera Aplysinellidae sponge // Manta Point, Sangalaki, Indonesia // Bromotyrosine-derived metabolites from an Indonesian sponge in the family Aplysinellidae (Order Verongiida)
904 // N // purpuramine M // cytotox. to 3 HTCLs (IC_{50} = 20-50 μM), 36% inhib. of BACE1 (at 42 μM) // *
905 // N // purpuramine N // NT // *
906 // N // araplysillin VII // 40% inhib. of BACE1 (at 40 μM) // *
907 // N // araplysillin VIII // NT // *
908 // N // araplysillin iX // 35% inhib. of BACE1 (at 42 μM) // *
909 // N // araplysillin X // 70% inhib. of BACE1 (at 31 μM) // *
910 // N // araplysillin XI // 60% inhib. of BACE1 (at 31 μM) // *

441 Porifera *Acanthodendrilla* sp. // Koh-Ha Islets, Krabi, Thailand // synth. and abs. config. of acanthodendrilline, a new cytotoxic bromotyrosine alkaloid from *Acanthodendrilla* sp.
911 // N // acanthodendrilline // weak activ. vs 1 HTCL and 1 non-cancerous hum. cell line // Abs. config. estab. by total synth.

442 Porifera *Theonella* sp. // Lanes, Indonesia // Lanesoic acid: a cytotoxic zwitterion from *Theonella* sp.
912 // N // lanesoic acid // mod. activ. vs 1 of 4 HTCLs tested // Unique zwitterionic cpd

444 Porifera *Jaspis splendens* // Great Barrier Reef, North Queensland, Australia // A grand challenge: unbiased phenotypic function of metabs. from *Jaspis splendens* vs Parkinson's disease
913 // N // jaspterin // Profiled vs phenotypic screen of PD // *
914 // N // splendamide // Profiled vs phenotypic screen of PD // Contains rare indole-3-carboimidamate motif
915 // N // jaspnin A // Profiled vs phenotypic screen of PD // Contains rare methylthioimidazole motif
916 // M // jaspamycin // Profiled vs phenotypic screen of PD, potent lead to probe mechanisms of PD // Previous synth. product
917 // M // 6-bromo-1H-indole-3-carboximidamide // Profiled vs phenotypic screen of PD // Previous synth. Product



445 Porifera *Spongia* sp. // Thua Thien-Hue City, Vietnam // New AB sesquiterpene aminoquinones from a Vietnamese marine sponge of *Spongia* sp.
918 // N // langcoquinone A // MIC 12.5 µM vs *B. subtilis* and *S. aureus*, IA vs *K. pneumoniae* and *E. coli*. // *
919 // N // langcoquinone B // MIC 12.5 µM vs *B. subtilis* and *S. aureus*, IA vs *K. pneumoniae* and *E. coli*. // *

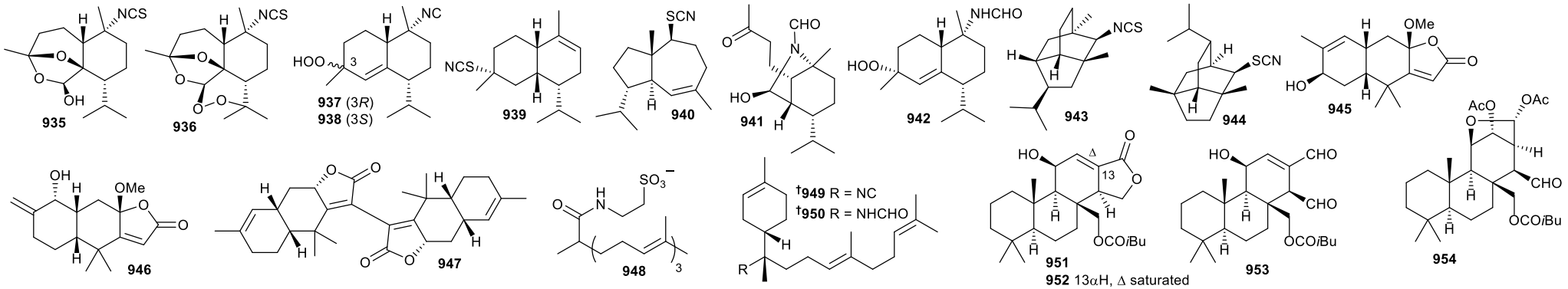
446 Porifera *Dysidea* sp. // Iriomote Is., Okinawa, Japan // Sesquiterpene hydroquinones with PTP1B inhiby. activities from a *Dysidea* sp. marine sponge collected in Okinawa
920 // N // avapyran // inhib. PTP1B (IC_{50} = 11.0 µM) // Abs. config. estab. by compar. of calc. and expt ECD spectra
921 // N // 17-O-acetylavarol // inhib. PTP1B (IC_{50} = 9.5 µM) // *
922 // N // 17-O-acetylneovarol // inhib. PTP1B (IC_{50} = 6.5 µM) // *

447 Porifera *Dysidea* sp. // Yongxing Is., S. China Sea // AB meroterpenoids from the South China Sea sponge *Dysidea* sp.
923 // N // dysidphenol A // weak AB (MIC = 100 µg/mL vs *E. coli*, *B. subtilis*, *S. aureus*) // Abs. config. estab. by compar. of calc. and expt ECD spectra
924 // N // dysidphenol B // IA // Abs. config. estab. by compar. of calc. and expt ECD spectra
925 // N // dysidphenol C // weak AB (MIC = 50 µg/mL vs *E. coli*, *B. subtilis*, *S. aureus*) // Abs. config. estab. by compar. of calc. and expt ECD spectra
926 // N // smenospongimine // mod. AB (MIC = 3.1 µg/mL vs *E. coli*, *B. subtilis*, *S. aureus*) // *

448 Porifera *Dysidea* sp. // Xisha Is., S. China Sea // Dysiherbols A–C and dysideanone E, cytotoxic and NF-κB inhiby. tetracyclic meroterpenes from a *Dysidea* sp. marine sponge
927 // N // dysiherbol A // potent NF-κB inhib. and cytotox. vs 1 HTCL // Abs. config. estab. by compar. of calc. and expt ECD spectra
928 // N // dysiherbol B // mod. NF-κB inhib. and cytotox. vs 1 HTCL // Abs. config. estab. by compar. of calc. and expt ECD spectra
929 // N // dysiherbol C // mod. NF-κB inhib. and cytotox. vs 1 HTCL // Abs. config. estab. by compar. of calc. and expt ECD spectra
930 // N // dysideanone E // IA // Abs. config by X-ray

449 Porifera *Agelas nemoechinata* // Xisha Islands, S. China Sea // Two new diterpene alkaloids from the South China Sea Sponge *Agelas* aff. *nemoechinata*
931 // N // nemoechine F // IA vs Jurkat cells and 2 microb. // Abs. config. estab. by compar. of calc. and expt ECD spectra
932 // N // nemoechine G // weak inhib. of Jurkat cells, IA vs 2 microb. strains // *

450 Porifera *Axinyssa variabilis* // Lingshui Bay, Hainan Province, P. R. China // New highly oxidized formamidobisabolene-derived sesquiterpenes from a Hainan sponge *Axinyssa variabilis*
933 // N // 7,10,11-trihydroxy-8-en-3-formamidotheonellin // IA // *
934 // N // 7,11-dihydroxy-10-methoxy-8-en-3-formamidotheonellin // IA // *



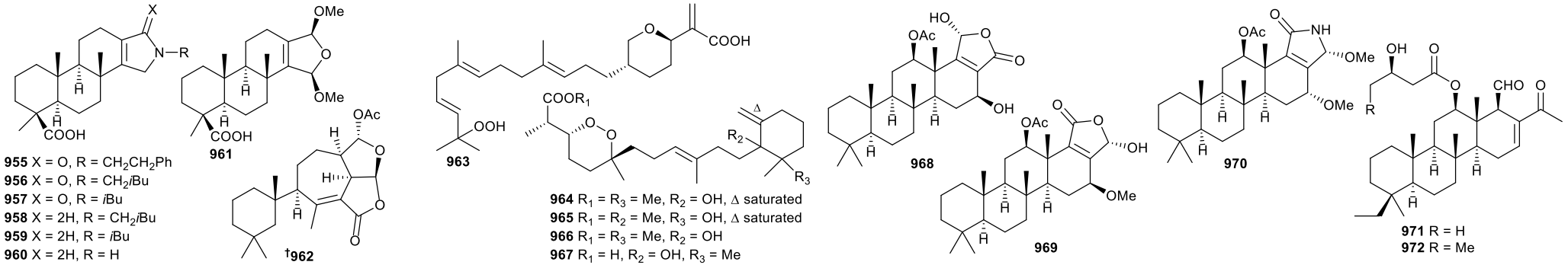
451 Porifera *Halichondria* sp. // Phi Phi Is., Krabi province, Thailand // Sesquiterpene isocyanides, isothiocyanates, thiocyanates, and formamides from the Thai sponge *Halichondria* sp.
935 // N // halichon A // NT // *
936 // N // halichon B // NT // *
937 // N // halichon C // weak activ. vs 6 HTCLs // *
938 // N // 4-epi-halichon C // weak activ. vs 6 HTCLs // *
939 // N // halichon D // weak activ. vs 5 HTCLs, IA vs 1 HTCL // *
940 // N // halichon E // NT // *
941 // N // halichon F // IA // *
942 // N // halichon G // weak activ. vs 5 HTCLs, IA vs 1 HTCL // *
943 // N // halichon H // weak activ. vs 2 HTCLs, IA vs 4 HTCLs // *
944 // M // (+)-2-thiocyanatoneopupukeanane // weak activ. vs 6 HTCLs // Known synth.

452 Porifera *Dysidea fragilis* // Vandon, Quangninh, Vietnam // Bis-sesquiterpene from the marine sponge *Dysidea fragilis*
945 // N // dysinidin C // IA vs 8 HTCLs // *
946 // N // dysinidin D // IA vs 8 HTCLs // *
947 // N // dysinidin E // IA vs 8 HTCLs // Sesquiterpene dimer

454 Porifera *Geodia macandrewii* // Nordland & Trøndelag, Norway // Metabolomic profiling reveals the *N*-acyl-taurine geodiataurine in extracts from the marine sponge *Geodia macandrewii* (Bowerbank)
948 // N // geodiataurine // weak activ. vs 1 HTCL, no AB activ. vs 5 strains // Discovered using UHPLC-HRMS based metabolomics screen

455 Porifera *Theonella swinhoei* // Iriomote Is., Okinawa, Japan // Amitorines A and B, nitrogenous diterpene metabolites of *Theonella swinhoei* : isolation, structure elucidation, and asymmetric synth.
949 // N // amitorine A // NT // Total synth. also accomplished to estab. abs. config.
950 // N // amitorine B // NT // Total synth. also accomplished to estab. abs. config.

456 Porifera *Dysidea arenaria* // Irabu Is., Okinawa, Japan // Four cytotoxic spongian diterpenes from the sponge *Dysidea* cf. *arenaria*
951 // N // * // mod. activ. vs 1 HTCL // *
952 // N // * // mod. activ. vs 1 HTCL // *
953 // N // * // mod. activ. vs 1 HTCL // *
954 // N // * // mod. activ. vs 1 HTCL // *



457 Porifera *Spongia ceylonensis* // Tiwoho, N. Sulawesi, Indonesia // Ceylonamides A–F, nitrogenous spongian diterps. that inhibit RANKL-induced osteoclastogenesis, from *S. ceylonensis*
955 // N // ceylonamide A // inhib. differentiation of RAW264.7 cells into osteoclasts via RANKL-TRAP (IC_{50} = 13 μM), non-toxic // *
956 // N // ceylonamide B // inhib. differentiation of RAW264.7 cells into osteoclasts via RANKL-TRAP (IC_{50} = 18 μM), non-toxic // *
957 // N // ceylonamide C // IA // *
958 // N // ceylonamide D // IA // *
959 // N // ceylonamide E // IA // *
960 // N // ceylonamide F // IA // *
961 // N // 15α,16-dimethoxyspongi-13-en-19-oic acid // IA // *

458 Porifera *Dendrilla membranosa* // Norsel Point, Antarctica // Darwinolide, a new diterp. scaffold that inhib. methicillin-resistant *Staphylococcus aureus* biofilm from *D. membranosa*
962 // N // darwinolide // MIC 133 μM vs MRSA, inhib. biofilm prod. (IC_{50} = 33 μM) yet non-cytotox. (J774 macrophage IC_{50} = 73 μM) // Abs. config. estab. by X-ray cryst., formed by unprecedented ring expansion of spongian precursor

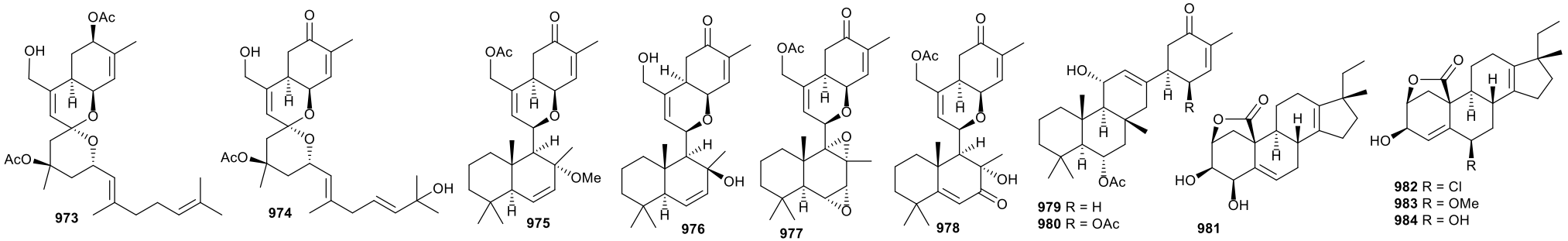
459 Porifera *Hippospongia* sp. // Pingtung county, Taiwan // A norsesterterpene peroxide from a marine sponge *Hippospongia* sp.
963 // N // rhopaloic acid H // weak activ. vs 2 of 4 HTCLs // *

460 Porifera *Diacarnus megaspinorhabdosa* // Yongxing Is., Xisha Is. // New antimalarial norterpene cyclic peroxides from Xisha Islands sponge *Diacarnus megaspinorhabdosa*
964 // N // diacarnuperoxide M // Antimalarial (IC_{50} = 4.2, 5.6 μM vs *P. falciparum* strain W2 and D6), selectivity = 2.6, 2.0 // *
965 // N // diacarnuperoxide N // Antimalarial (IC_{50} = 3.0, 6.6 μM vs *P. falciparum* strain W2 and D6), selectivity = 3.7, 1.7 // *
966 // N // (+)-2,3,6-epihurghaperoxide // Antimalarial (IC_{50} = 1.6, 2.2 μM vs *P. falciparum* strain W2 and D6), selectivity = 7.0, 5.1 // *
967 // N // (+)-2,3,6-epihurghaperoxide acid // Antimalarial (IC_{50} = 4.9, 7.3 μM vs *P. falciparum* strain W2 and D6), selectivity = 2.4, 1.6 // *

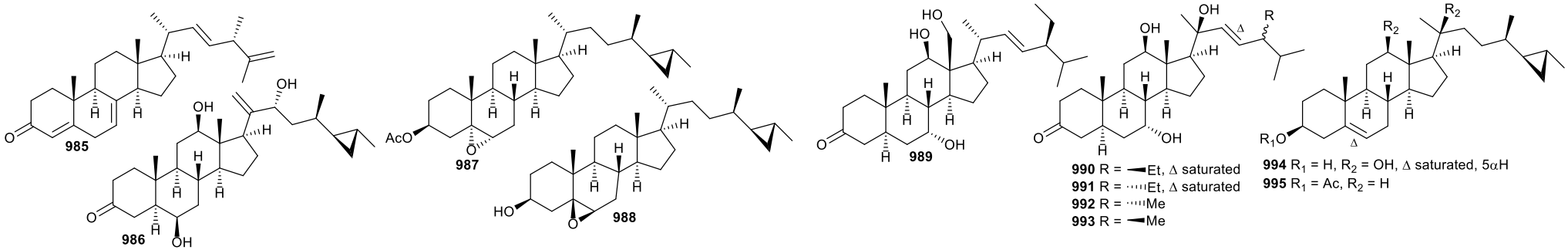
461 Porifera *Hyrtios erectus* // Sharm El-Sheikh, Egypt // Antiproliferative scalarane-based metabolites from the Red Sea sponge *Hyrtios erectus*
968 // N // 12-acetoxy,16-epi-hyrtiolide // weak activ. vs 3 HTCLs // *
969 // N // 12β-acetoxy,16β-methoxy,20α-hydroxy-17-scalaren-19,20-olide // weak activ. vs 3 HTCLs // *

462 Porifera *Hyrtios erectus* // Sharm El-Sheikh, Egypt // A new bioactive metabolite isolated from the Red Sea marine sponge *Hyrtios erectus*
970 // N // 24-methoxy-petrosaspongia C // weak activ. vs 3 HTCLs // Lactam-containing scalarane

463 Porifera *Carteriospongia* sp. // Tai-tung, Taiwan // Antileukemic scalarane sesterterpenoids and meroditerpenoid from *Carteriospongia* (Phyllospongia) sp., induce apoptosis via dual inhiby. effects on topoisomerase II and Hsp90
971 // N // 12β-(3′β-hydroxybutanoyloxy)-20,24-dimethyl-24-oxo-scalara-16-en-25-al // Very potent activ. vs 2 HTCLs. Activates apopt. via dual inhib. of Hsp-90 and topoisomerase II//*
972 // N // 12β-(3′β-hydroxypentanoyloxy)−20,24-dimethyl-24-oxo-scalara-16-en-25-al // potent activ. vs 2 HTCLs. Activates apoptosis via dual inhib. of Hsp-90 and topoisomeraseII //*

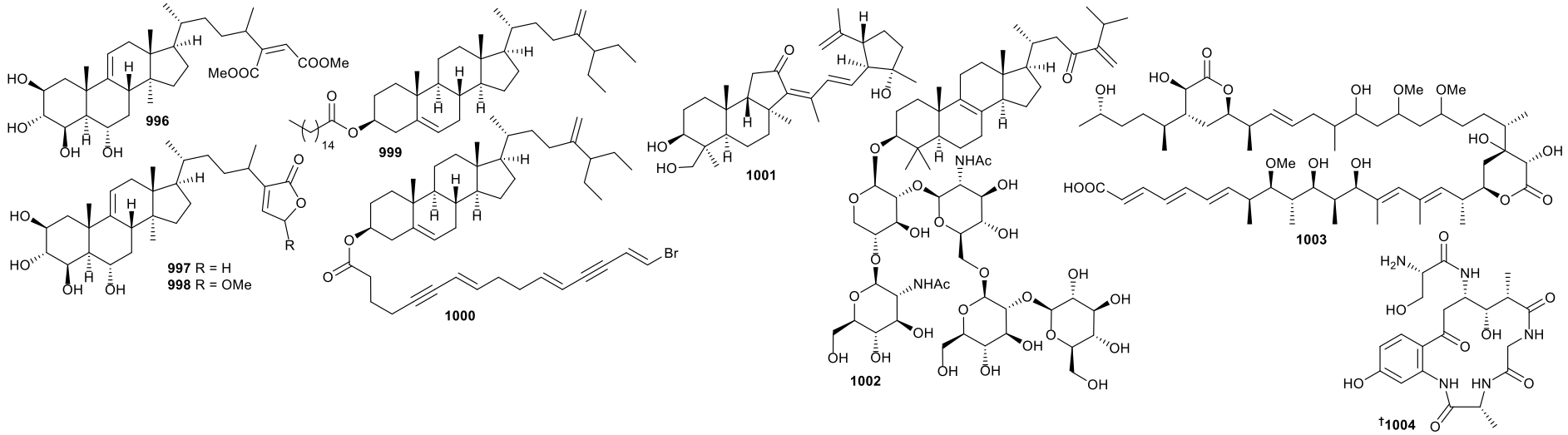


464 Porifera *Phorbas* sp. // Howe Sound, British Columbia, Canada // Sesterterpenoids isolated from the sponge *Phorbas* sp. activate latent HIV-1 provirus expression
973 // N // alotaketal D // Similar level of induction of latent HIV-proviral gene expression as positive control, prostratin // *
974 // N // alotaketal E // Similar level of induction of latent HIV-proviral gene expression as positive control, prostratin // *
975 // N // ansellone D // IA // *
976 // N // ansellone E // IA // *
977 // N // ansellone F // IA // Contains exceedingly rare 1,2-3,4-bisepoxydecalin motif
978 // N // ansellone G // Similar level of induction of latent HIV-proviral gene expression as positive control, prostratin // *
979 // N // anvilone A // Similar level of induction of latent HIV-proviral gene expression as positive control, prostratin // new carbon skeleton
980 // N // anvilone B // IA // new carbon skeleton
465 Porifera *Myrmekioderma* sp. // Kauai, Hawai'i // Pregnane-10,2-carbolactones from a Hawaiian marine sponge in the genus *Myrmekioderma*
981 // N // 3β,4β-dihydroxy-17-methyl-17α-pregna-5,13-diene-10,2-carbolactone // IA // *
982 // N // 6β-chloro-3β-hydroxy-17-methyl-17α-pregna-4,13-diene-10,2-carbolactone // weak inhib. of BACE1 (IC_{50} = 82 μM) // *
983 // N // 3β-hydroxy-6β-methoxy-17-methyl-17α-pregna-4,13-diene-10,2-carbolactone // IA // *
984 // N // 3β,6β-dihydroxy-17-methyl-17α-pregna-4,13-diene-10,2-carbolactone // IA // *

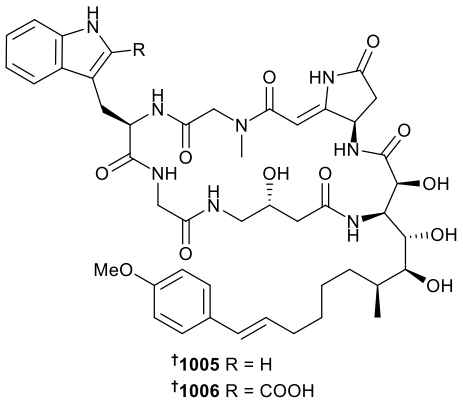


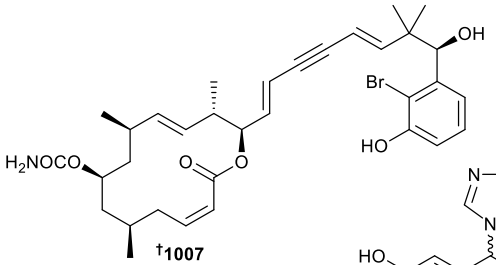
466 Porifera *Xestospongia testudinaria* // Weizhou Is., Guangxi Autonomous Region, China // A new bioactive steroidal ketone from the South China Sea sponge *Xestospongia testudinaria*
985 // N // (22E,24S)-24-methylcholesta-4,7,22,25-tetraene-3-one // inhib. PTP1B (IC_{50} = 4.3 μM), IA vs 2 HTCLs // *
467 Porifera *Xestospongia* sp. // Yongxin Is., Hainan Province, P. R. China // New sterol derivatives from the marine sponge *Xestospongia* sp.
986 // N // aragusterol J // weak activ. vs 1 HTCL // *
987 // N // aragusterol K // * // *

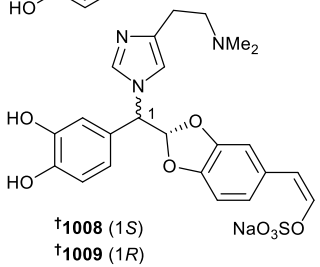
988 // N // aragusterol L // * // *
989 // N // (5α,7α,12β,22E)-7,12,18-trihydroxystigmast-22-en-3-one // weak activ. vs 1 HTCL // *
990 // N // (5α,7α,12β,24R)-7,12,20-trihydroxystigmastan-3-one // weak activ. vs 1 HTCL // insep. mixt.
991 // N // (5α,7α,12β,24S)-7,12,20-trihydroxystigmastan-3-one // weak activ. vs 1 HTCL // insep. mixt.
992 // N // (5α,7α,12β,22E,24R)-7,12,20-trihydroxyergost-22-en-3-one // weak activ. vs 1 HTCL // insep. mixt.
993 // N // (5α,7α,12β,22E,24S)-7,12,20-trihydroxyergost-22-en-3-one // weak activ. vs 1 HTCL // insep. mixt.
994 // M // 3α-aragusterol I // weak activ. vs 1 HTCL // Previous synth. product
995 // M // petrosteryl acetate // * // Previous synth. product

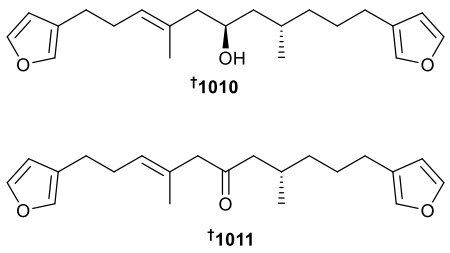


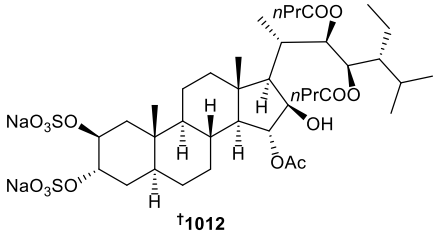
468 Porifera *Topsentia* sp. // Xuwen, Guangdong Province, China // Topsensterols A–C, cytotoxic polyhydroxylated sterol derivatives from a marine sponge *Topsentia* sp.
996 // N // topsensterol A // IA vs 2 HTCLs and 3 microb. strains // *
997 // N // topsensterol B // weak activ. vs 2 HTCLs and IA vs 3 microb. strains // *
998 // N // topsensterol C // weak activ. vs 2 HTCLs and IA vs 3 microb. strains // *
469 Porifera *Xestospongia testudinaria* // Ghurab Reef, Jazan, Saudi Arabia // Cytotoxic compounds from the Saudi Red Sea sponge *Xestospongia testudinaria*
999 // N // xestosterol palmitate // weak activ. vs 2 HTCLs // *
1000 // N // * // NT // *
472 Porifera *Jaspis stellifera* // S. China Sea // Jaspiferin G, a new isomalabaricane-type triterpenoid from the sponge *Jaspis stellifera*
1001 // N // jaspiferin G // NT // *
473 Porifera *Lipastrotehtya* sp. // Osakura, Japan. // A new triterpenoid saponin from the tropical marine sponge *Lipastrotethya* sp.
1002 // N // * // weak activ. vs 4 HTCLs // *
522 Porifera *Hemimycale* sp. // * // Toward the stereochemical assignment and synth. of hemicalide: DP4f GIAO-NMR analysis and synth. of a reassigned C16-C-28 subunit
1003 // R // hemicalide // * // config. reassigned based upon DFT calc. and synth., cpd not reported in literature previously
536 Porifera *Theonella swinhoei* // * // Total synth. of the marine natural product solomonamide B necessitates stereochemical revision
1004 // R // solomonamide B // * // Revised following total synth.



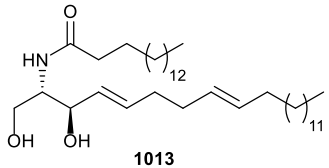








538 Porifera *Microscleroderma herdmani* // * // Dehydromicrosclerodermin B and microsclerodermin J: total synth. and structural revision
1005 // R // microsclerodermin J // * // config. reassigned based upon total synth.
1006 // M // dehydromicrosclerodermin B // * // config. reassigned based upon total synth., cpd not reported in literature previously
540 Porifera *Callyspongia* sp. // * // Total synth. and stereochemical assignment of callyspongiolide
1007 // R // callyspongiolide // potent cytotox. vs Jurkat cells (IC_{50} = 11 nM), 7 HTCLs (IC_{50} = 0.23 - 3.56 µM) // estab. by total synth.
551 Porifera *Poecillastra wondoensis* // * // Total syntheses of isowondonins based on a biosynth. pathway
1008 // R // (–)-isowondonin A // * // Abs. config. estab. by total synth. and by compar. of expt. and calc. ECD spectra
1009 // R // (–)-isowondonin B // * // Abs. config. estab. by total synth. and by compar. of expt. and calc. ECD spectra
579 Porifera *Spongia officinalis* // * // synth. and configs. of (-)-furospongin-1 and (+)-dihydrofurospongin-2
1010 // R // (-)-furospongin-1 // * // config. reassigned based upon total synth.
1011 // R // (+)-dihydrofurospongin-2 // * // config. reassigned based upon total synth.
581 Porifera *Clathria* sp // * // synth. toward and stereochemical assignment of clathsterol: exploring diverse strategies to polyoxygenated sterols
1012 // R // clathsterol // * // config. of side chain estab. by synth. of 2 diastereomers



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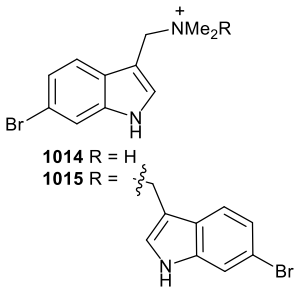
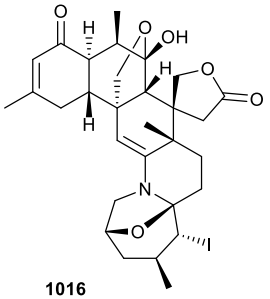


1014 R = H
1015 R =



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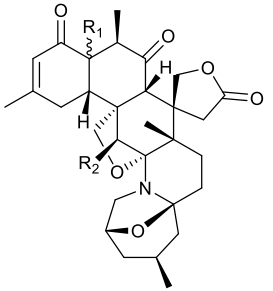
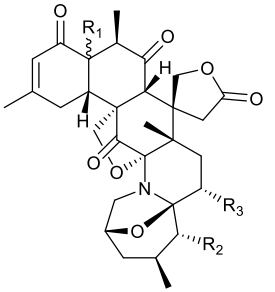


1017 R_1 = ····H, R_2 = Cl
1018 R_1 = ▬H, R_2 = OH

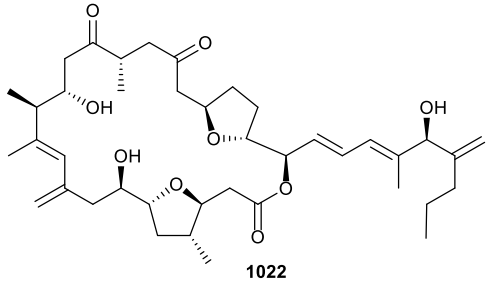


1019 R_1 = ····H, R_2 = H, R_3 = OH
1020 R_1 = ····H, R_2 = OMe, R_3 = H
1021 R_1 = ▬H, R_2 = R_3 = H

593 Cnidaria *Heteroxenia ghardaquensis* // Hurghada, Egypt // A new cytotoxic ceramide from *Heteroxenia ghardaqensis* and protective effect of chloroform extract against cadmium toxicity in rats
1013 // N // * // weakly cytotox Hep-G2 cells // *

594 Cnidaria *Abietinaria abietina* // Matua Is., Sea of Okhotsk // Gramine-derived bromo-alkaloids activating NF-κB-dependent transcription from the marine hydroid *Abietinaria abietina*
1014 // N // 6-bromogramine // activate NF-kB dependent transcription // *
1015 // N // bis-6-bromogramine // activate NF-kB dependent transcription // *

595 Cnidaria *Zoanthus kuroshio* // Kaohsiung City, Taiwan // Zoanthamine-type alkaloids from the zoanthid *Zoanthus kuroshio* collected in Taiwan and their effects on inflammation
1016 // N // 5α-iodozoanthenamine // weak inhib. of superoxide generation and elastase release // *
1017 // N // 11β-chloro-11-deoxykuroshine A // weak inhib. of superoxide generation and elastase release // *
1018 // N // 18-epi-kuroshine A // weak inhib. of superoxide generation and elastase release // *
1019 // N // 7α-hydroxykuroshine E // weak inhib. of superoxide generation and elastase release // *
1020 // N // 5α-methoxykuroshine E // weak inhib. of superoxide generation and elastase release // *
1021 // N // 18-epi-kuroshine E // weak inhib. of superoxide generation and elastase release // *



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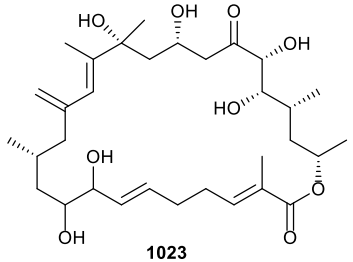

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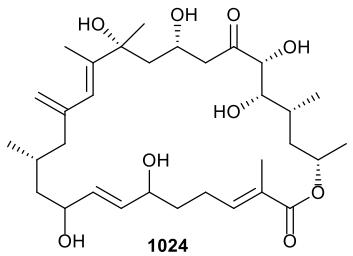

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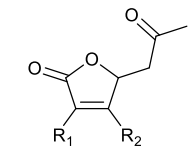
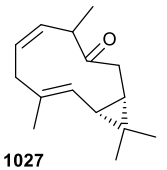


1025 R_1 = Me, R_2 = H
1026 R_1 = H, R_2 = Me



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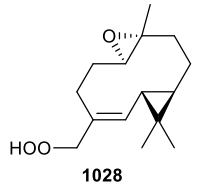


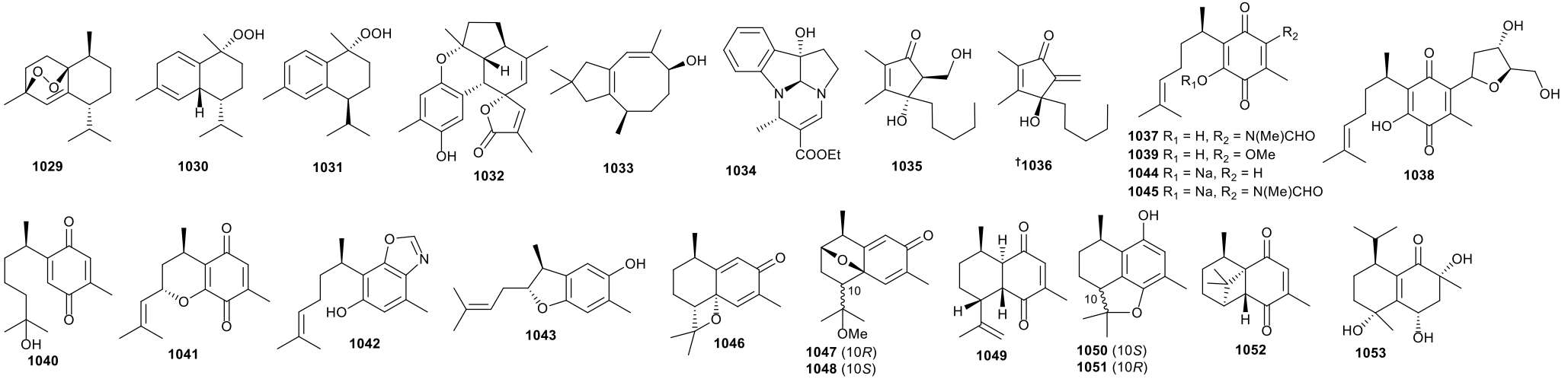
1028

596 Cnidaria *Stragulum bicolor* // Caponga beach, Ceara, Brazil // Dinoflagellate-related amphidinolides from the Brazilian octocoral *Stragulum bicolor*
1022 // N // amphidinolide C4 // mod. cytotox HCT116 // *
1023 // N // amphidinolide B8 // mod. cytotox HCT116 // *
1024 // N // amphidinolide B9 // NT // *

597 Cnidaria *Sinularia mollis* // Green Is., Taiwan // Mollisolactones A and B, novel dinormonoterpenes from the soft coral *Sinularia mollis*
1025 // N // mollisolactone A // weakly cytotox 3 tumor cell lines // *
1026 // N // mollisolactone B // weakly cytotox 3 tumor cell lines // *

598 Cnidaria *Capnella* sp. // Mantanani Is., Borneo // Capgermacrene C, a new sesquiterpenoid from a Bornean soft coral, *Capnella* sp.
1027 // N // capgermacrene C // IA to bact. // *

599 Cnidaria *Sinularia lochmodes* // North-east Taiwan // Isobicyclogermacrene-type sesquiterpenoids from the soft coral Sinularia lochmodes
1028 // N // lochmolin H // NT // *



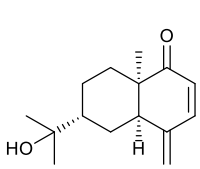
600 Cnidaria *Sinularia* sp. // Irabu Is., Okinawa, Japan // Endoperoxy and hydroperoxy cadinane-type sesquiterpenoids from an Okinawan soft coral, *Sinularia* sp.
1029 // N // * // weakly cytotox, AB, AI // *
1030 // N // * // weakly cytotox, AB, AI // *
1031 // N // * // weakly cytotox, AB, AI // *

601 Cnidaria *Sinularia verruca* // Ximao Is., Hainan Province, China // Structurally diverse metabolites from the soft coral *Sinularia verruca* collected in the South China Sea
1032 // N // verrubenzospirolactone // IA antiviral, cytotox, NO prod. // *
1033 // N // 10-deoxocapillosanane D // IA antiviral, cytotox, NO prod. // *
1034 // N // verrupyrroloindoline // IA antiviral, cytotox, NO prod. // *
1035 // N // * // weak antiviral, weak cytotox, mod inhib. of NO prod. // *
1036 // N // * // mod antiviral and mod cytotox // Abs config by TDDFT/ECD

602 Cnidaria *Pseudopterogorgia rigida* // Lighthouse Point, Eleuthera Is., The Bahamas // Sesquiterpenes with inhibitory activity against CDC25 phosphatases from the soft coral *Pseudopterogorgia rigida*
1037 // N // rigidamide // mod. inhib. CDC25 phosphatases // *
1038 // N // riboperezone // mod. inhib. CDC25 phosphatases // *
1039 // M // * // mod. inhib. CDC25 phosphatases // previously reported as semi-synth.
1040 // M // * // NT // previously reported as semi-synth.
1041 // N // 5,9-epoxy-curcuquinone // NT // *

1042 // N // oxazocurcuphenol // mod. inhib. CDC25 phosphatases // *
1043 // N // heliannuol N // mod. inhib. CDC25 phosphatases // *
1044 // N // perezone sodium salt // mod. inhib. CDC25 phosphatases // *
1045 // N // rigidamide sodium salt // NT // *
1046 // N // pseudorigidone A // mod. inhib. CDC25 phosphatases // *
1047 // N // pseudorigidone B // mod. inhib. CDC25 phosphatases // *
1048 // N // pseudorigidone C // mod. inhib. CDC25 phosphatases // *
1049 // N // pseudorigidone D // strong inhib. CDC25 phosphatases // *
1050 // N // pseudorigidol A // mod. inhib. CDC25 phosphatases // *
1051 // N // pseudorigidol B // NT // *
1052 // N // eleutheradione // NT // *

603 Cnidaria *Menella* sp. // Leizhou Is., China // A new sesquiterpene from the gorgonian coral *Menella* sp.
1053 // N // menecubebane B // mildly cytotox 2 TCLs // *



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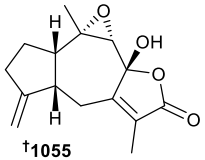
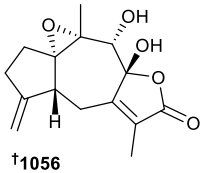
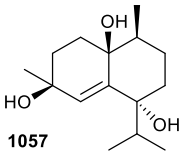


†**1055**



†**1056**



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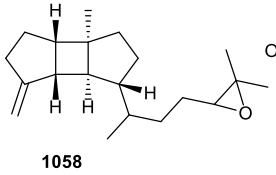

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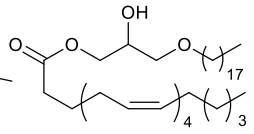

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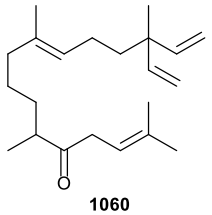

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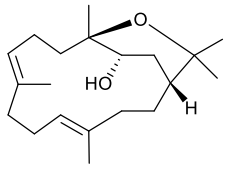
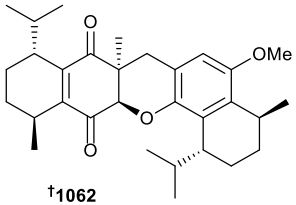
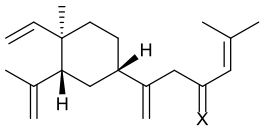


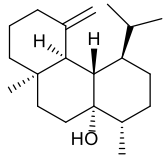
†**1061**



†**1062**



1063 X = O
1064 X = 2H



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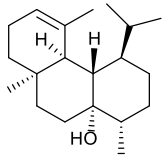

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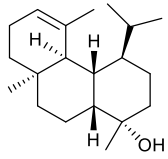

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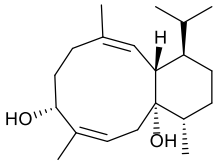

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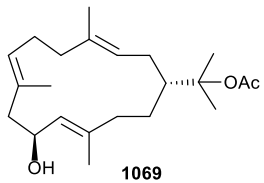

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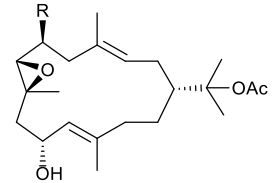


1070 R = H
1071 R = OAc

604 Cnidaria *Subergorgia suberosa* // Naozhou Is., S. China Sea // A new sesquiterpene from the South China Sea gorgonian coral *Subergorgia suberosa*
1054 // N // suberosoid // mildly cytotox HeLa cells // *

605 Cnidaria *Menella woodin* // Coto Is., Quang Ninh province, Vietnam // Guaiane sesquiterpenoids from the gorgonian *Menella woodin*
1055 // N // menelloide F // * // Abs config by TDDFT/ECD
1056 // N // menelloide G // * // Abs config by TDDFT/ECD

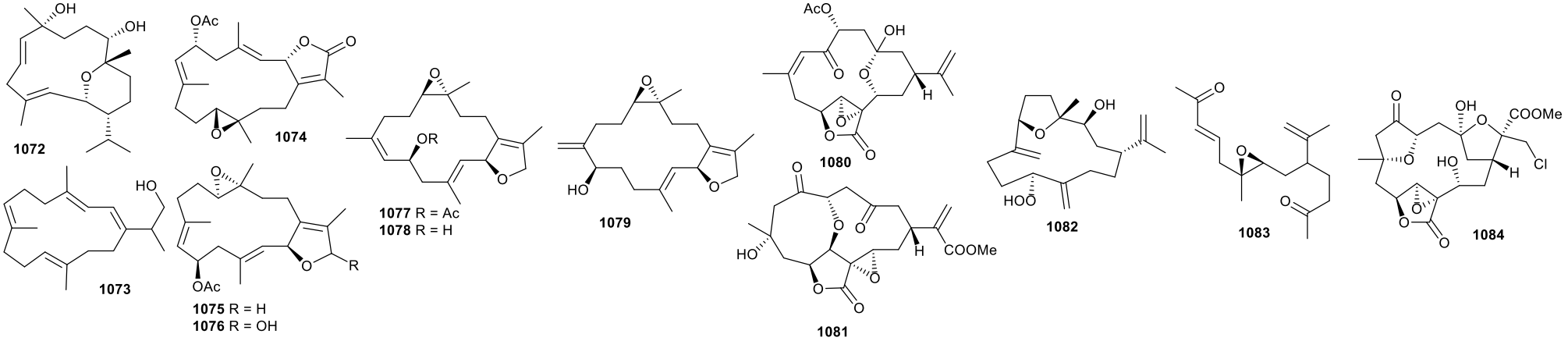
606 Cnidaria *Sinularia vanderlandi*, *S. gravis* // Mahambo, Tamatave province, Madagascar // Chemical constituents of the soft corals *Sinularia vanderlandi* and *Sinularia gravis*
1057 // N // vanderlandin // NT // *
1058 // N // gravilin // NT // *
1059 // N // * // NT // *
1060 // N // * // NT // *
1061 // N // isodecaryiol // NT // Abs config by X-ray

607 Cnidaria *Rhytisma fulvum fulvum* // Banc du Castor, Mitsios Archipelago, Madagascar // Bisdioxycalamenene: a bis-sesquiterpene from the soft coral *Rhytisma fulvum fulvum*
1062 // N // bisdioxycalamenene // toxic to brine shrimp, not AB // Abs config by X-ray

608 Cnidaria *Sinularia* sp. // Mantanani Is., Borneo // Two new lobane diterpenes from a Bornean soft coral *Sinularia* sp.
1063 // N // prenyl-α-elemenone // AB vs *S. aureus*, non-cytotox // *
1064 // M // *ent*-prenyl-β-elemene // non-cytotox // Previously known from engineered *Streptomyces*.

609 Cnidaria *Gersemia fruticosa* // Beaufort Sea // Gersemiols A–C and eunicellol A, diterpenoids from the Arctic soft coral *Gersemia fruticosa*
1065 // N // gersemiol A // IA // *
1066 // N // gersemiol B // IA // *
1067 // N // gersemiol C // IA // *
1068 // N // eunicellol A // Active vs MRSA // *

610 Cnidaria *Nephthea* sp., Litophyton sp. // Layangan, Sabah, Malaysia // Three new cembranoids from the Bornean soft coral *Nephthea* sp.
1069 // N // 10-hydroxy-nephthenol acetate // weakly AB and weakly cytotox // *
1070 // N // 7,8-epoxy-10-hydroxy-nephthenol acetate // weakly AB and weakly cytotox // *
1071 // N // 6-acetoxy-7,8-epoxy-10-hydroxy-nephthenol acetate // IA // *



611 Cnidaria *Sarcophyton trocheliophorum* // ?? // Unusual pyranosyl cembranoid diterpene from *Sarcophyton trocheliophorum*
1072 // N // * // IA // *

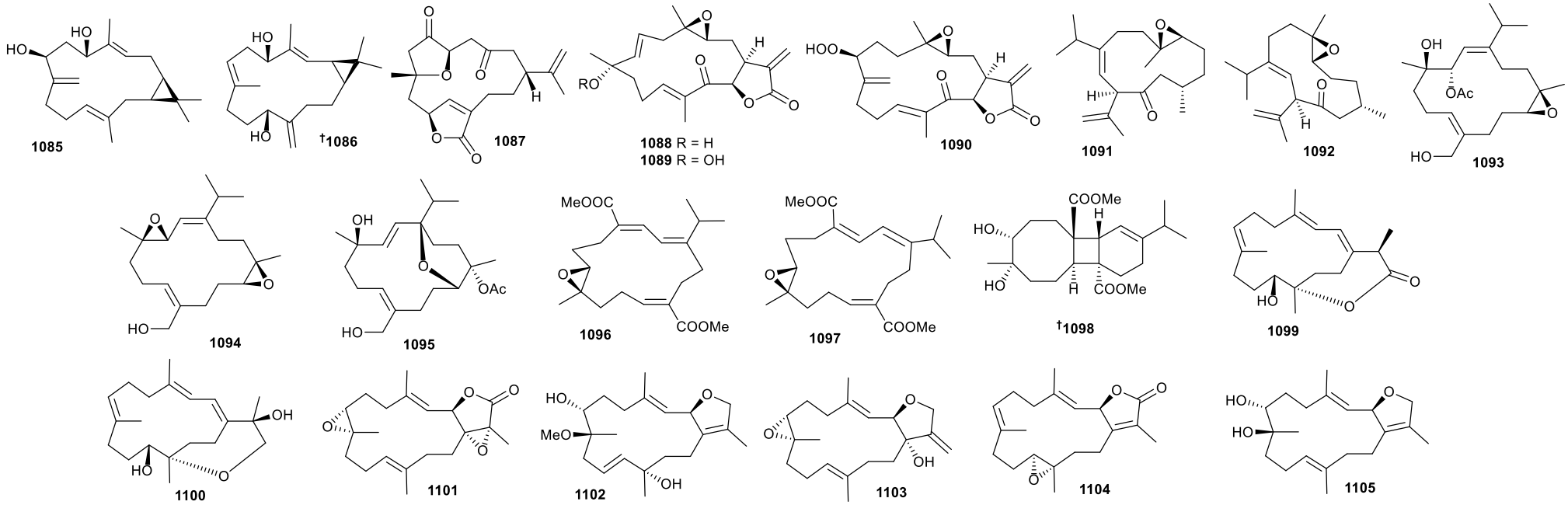
612 Cnidaria *Sarcophyton* sp. // Karah Is., Terengganu // 16-Hydroxycembra-1,3,7,11-tetraene, a new cembrane diterpene from Malaysian soft coral genus *Sarcophyton*
1073 // N // 16-hydroxycembra-1,3,7,11-tetraene // mildly AB S. aureus // *

613 Cnidaria *Sarcophyton trocheliophorum* // Lanyu Is., Taiwan // Trocheliolide B, a new cembranoidal diterpene from the octocoral *Sarcophyton trocheliophorum*
1074 // N // trocheliolide B // NT // *

614 Cnidaria *Sarcophyton ehrenbergi* // North Reef (Beijiao), Xisha Is., China Sea // New cembrane-type diterpenoids from the South China Sea soft coral *Sarcophyton ehrenbergi*
1075 // N // sarcophytonoxide A // non-cytotox // *
1076 // N // sarcophytonoxide B // non-cytotox // *
1077 // N // sarcophytonoxide C // non-cytotox // *
1078 // N // sarcophytonoxide D // non-cytotox // *
1079 // N // sarcophytonoxide E // non-cytotox // *

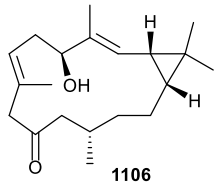
615 Cnidaria *Sinularia erecta* // Dongsha Atoll, China Sea // Bioactive isoprenoid-derived natural products from a Dongsha Atoll soft coral *Sinularia erecta*
1080 // N // sinulerectol A // potent inhib. of both superoxide generation and elastase release // *

1081 // N // sinulerectol B // potent inhib. of both superoxide generation and elastase release // *
1082 // N // sinulerectol C // potent inhib. of both superoxide generation and elastase release // *
1083 // N // sinulerectadione // potent inhib. of both superoxide generation and elastase release // *
1084 // R // sinularectin // potent inhib. of both superoxide generation and elastase release // *



616 Cnidaria *Sinularia polydactyla* // Hurghada, Egypt // Casbane diterpenes from Red Sea coral *Sinularia polydactyla*
1085 // N // sinularcasbane M // NT // *
1086 // N // sinularcasbane N // NT // Abs config by X-ray
1087 // N // sinularcasbane O // NT // C-5 epimer of scabrolide F
617 Cnidaria *Eunicea succinea* // Isla Bastimentos National Park, Panama // Uprolides N, O and P from the Panamanian octocoral *Eunicea succinea*
1088 // N // uprolide N // Inhibits prod. of TNF-α and IL-6 // *
1089 // N // uprolide O // Inhibits prod. of TNF-α and IL-7 // *
1090 // N // uprolide P // Inhibits prod. of TNF-α and IL-8 // *
618 Cnidaria *Sinularia nanolobata* // Jihui Fishing Port, Taitung county, Taiwan // Cubitanoids and cembranoids from the soft coral *Sinularia nanolobata*
1091 // N // nanoculone A // non-cytotox and IA vs NO prod. // *
1092 // N // nanoculone B // non-cytotox and IA vs NO prod. // *
1093 // N // nanolobol A // non-cytotox and IA vs NO prod. // *
1094 // N // nanolobol B // non-cytotox and IA vs NO prod. // *
1095 // N // nanolobol C // non-cytotox // *

619 Cnidaria *Lobophytum crassum* // Meishan, Hainan Province, China // Cembranoids from a Chinese collection of the soft coral *Lobophytum crassum*
1096 // N // locrassumin A // Inhibits NO prod. // 11E isomer of sarcrassin A
1097 // N // locrassumin B // IA // *
1098 // N // locrassumin C // IA // Abs by NMR and induced CD
1099 // N // locrassumin D // IA // *
1100 // N // locrassumin E // IA // *
1101 // N // locrassumin F // IA // *
1102 // N // locrassumin G // Inhibits NO prod. // *
1103 // N // (–)-laevigatol B // IA // *
1104 // N // (–)-isosarcophine // IA // *
1105 // N // (–)-7R,8S-dihydroxydeepoxysarcophytoxide // IA // *



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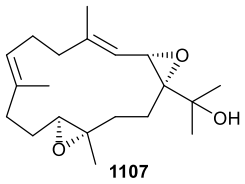

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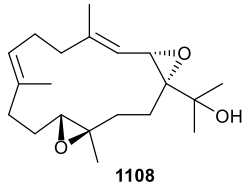

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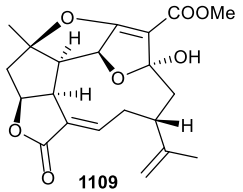

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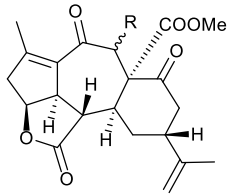
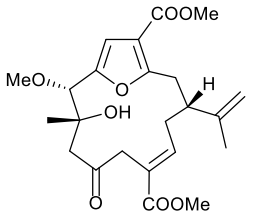


1110 R = ····OMe
1111 R = ◄OMe



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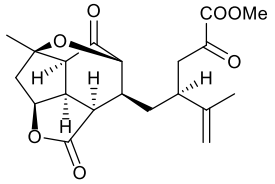

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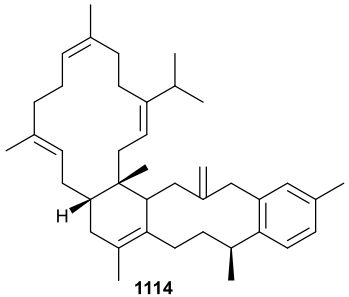

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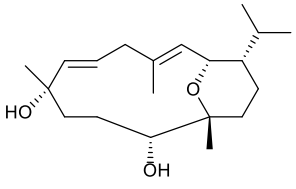

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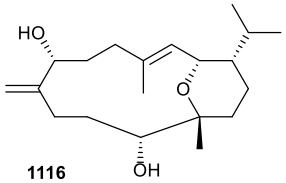

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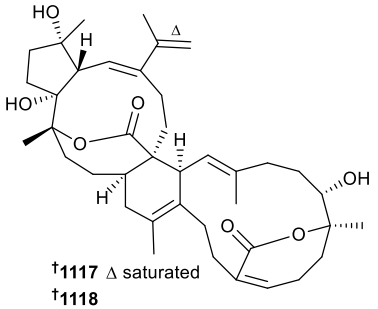
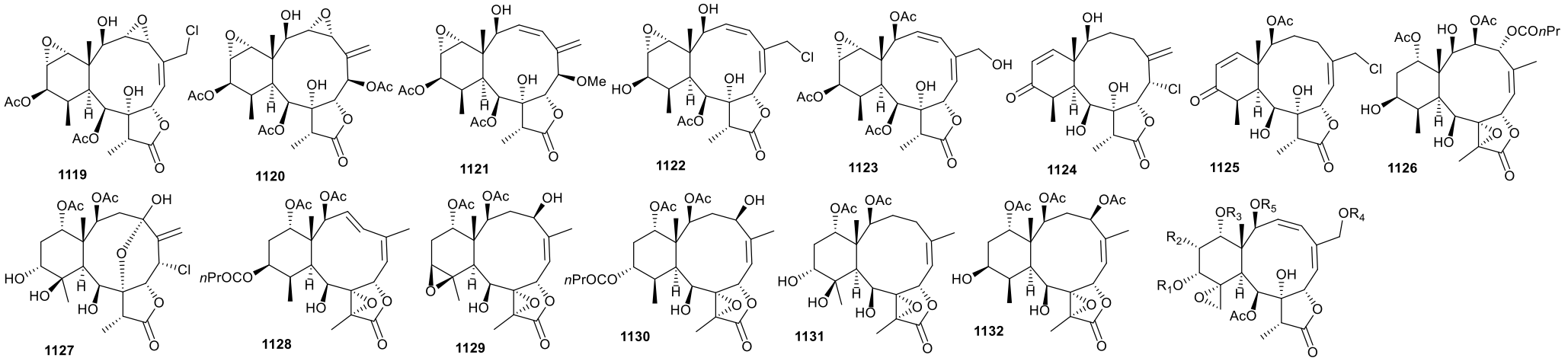


†**1117** Δ saturated
†**1118**

620 Cnidaria *Lobophytum* sp. // Irabu Is., Okinawa, Japan // New casbane and cembrane diterpenoids from an Okinawan soft coral, *Lobophytum* sp.
1106 // N // * // AB, weak cytotox // *
1107 // N // * // AB, weak cytotox // *
1108 // N // * // AB, weak cytotox // *
621 Cnidaria *Sinularia inelegans* // Mandapam coast, Gulf of Mannar, India // Pambanolides A–C from the South Indian soft coral *Sinularia inelegans*
1109 // N // pambanolide A // weak cytotox to 4 HTCLs // *
1110 // N // pambanolide B1 // weak cytotox to 4 HTCLs // *
1111 // N // pambanolide B2 // weak cytotox to 4 HTCLs // struct. by X-ray
1112 // N // pambanolide C // weak cytotox to 4 HTCLs // *
1113 // N // 4,5-secosinulochmodin C // NT // *

622 Cnidaria *Sarchophyton trocheliophorum* // Jeddah, Saudi Arabia // New antimicrobial biscembrane hydrocarbon and cembranoid diterpenes from the soft coral *Sarcophyton trocheliophorum*
1114 // N // trocheliane // potent AB // *
1115 // N // sarcotrocheldiol A // mod. AB // *
1116 // N // sarcotrocheldiol B // mod. AB // *

623 Cnidaria *Sarcophyton subviride* // Xisha Is., S. China Sea // Bissubvilides A and B, cembrane–capnosane heterodimers from the soft coral *Sarcophyton subviride*
1117 // N // bissubvilide A // Non-cytotox // Abs config by TDDFT/ECD
1118 // N // bissubvilide B // Non-cytotox // Abs config by TDDFT/ECD

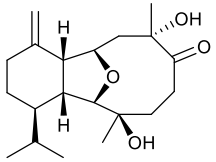


†**1133** R_1 = R_5 = Ac, R_2 = R_4 = H, R_3 = *i*BuCO
†**1134** R_1 = *i*BuCO, R_2 = *i*BuCOO, R_3 = R_5 = Ac, R_4 = H
†**1135** R_1 = R_3 = Ac, R_2 = *i*BuCOO, R_4 = H, R_5 = $COCH_2OCOiBu$
†**1136** R_1 = R_5 = Ac, R_2 = OAc, R_3 = *i*BuCO, R_4 = Me
†**1137** R_1 = *i*BuCO, R_2 = OAc, R_3 = Ac, R_4 = Me, R_5 = $COCH_2OCOiBu$
†**1138** R_1 = R_5 = Ac, R_2 = OH, R_3 = R_4 = *i*BuCO
†**1139** R_1 = H, R_2 = *i*BuCOO, R_4 = *i*BuCO, R_3 = R_5 = Ac

624 Cnidaria *Briareum* sp. // S. Taiwan // Briarenolides M–T, new briarane diterpenoids from a Formosan octocoral *Briareum* sp.
1119 // N // briarenolide M // Reduced iNOS expression // *
1120 // N // briarenolide N // Reduced iNOS expression // *
1121 // N // briarenolide O // IA // *
1122 // N // briarenolide P // Reduced iNOS and COX-2 expression // *
1123 // N // briarenolide Q // IA // *
1124 // N // briarenolide R // IA // *
1125 // N // briarenolide S // Reduced iNOS expression // *
1126 // N // briarenolide T // Reduced iNOS and COX-2 expression // *

625 Cnidaria *Briareum* sp. // S. Taiwan // New 9-hydroxybriarane diterpenoids from a gorgonian coral *Briareum* sp. (Briareidae)
1127 // N // briarenolide ZI // IA // *
1128 // N // briarenolide ZII // Reduced iNOS expression // *
1129 // N // briarenolide ZIII // IA // *
1130 // N // briarenolide ZIV // IA // *
1131 // N // briarenolide ZV // IA // *
1132 // N // briarenolide ZVI // Reduced iNOS expression // *

667 Cnidaria *Dichotella gemmacea* // S. China Sea // Chemistry and bioactivity of briaranes from the South China Sea gorgonian *Dichotella gemmacea*
1133 // N // gemmacolide AZ // weak cytotox 2HTCLs and weak AB // Abs config by CD compar.
1134 // N // gemmacolide BA // weak cytotox 2HTCLs and weak AB // Abs config by CD compar.
1135 // N // gemmacolide BB // weak cytotox 2HTCLs // Abs config by CD compar.
1136 // N // gemmacolide BC // weak cytotox 2HTCLs and weak AB // Abs config by CD compar.
1137 // N // gemmacolide BD // Non-cytotox and weak AB // Abs config by CD compar.
1138 // N // gemmacolide BE // weak cytotox 2HTCLs // Abs config by CD compar.
1139 // N // gemmacolide BF // weak cytotox 2HTCLs // Abs config by CD compar.



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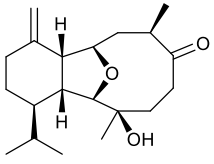

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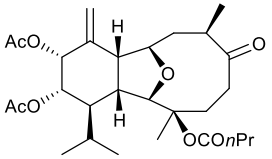

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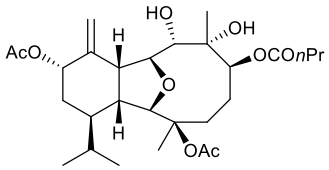

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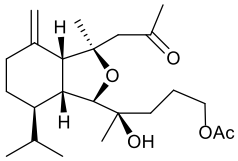

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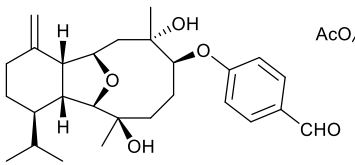
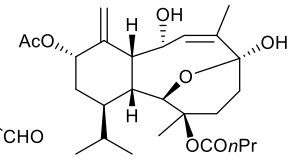


1145



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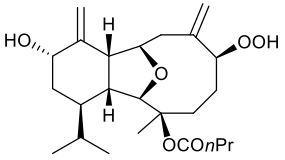

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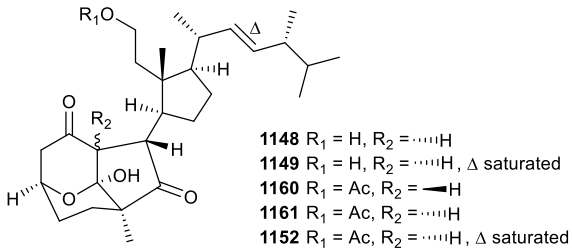


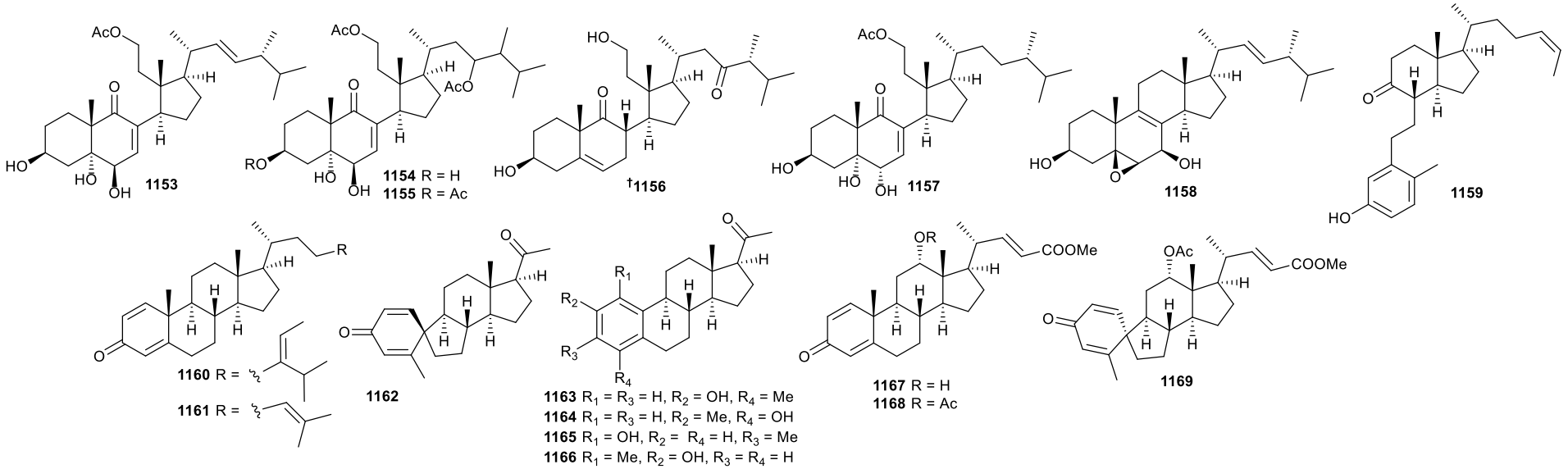
1148 R_1 = H, R_2 = ····H
1149 R_1 = H, R_2 = ····H, Δ saturated
1160 R_1 = Ac, R_2 = ◄H
1161 R_1 = Ac, R_2 = ····H
1152 R_1 = Ac, R_2 = ····H, Δ saturated

627 Cnidaria *Klyxum molle* // Peng-Hu Is., Taiwan // New eunicellin-derived diterpenoids from a Taiwanese soft coral *Klyxum molle*
1140 // N // klymollin Y // IA // *
1141 // N // klymollin Z // weak cytotox CCRF-CEM // *
1142 // N // klyxumollin A // IA // *
1143 // N // klyxumollin B // IA // *
1144 // N // klyxumollin C // mild reduction in TNF-α levels // *
1145 // N // klyxumollin D // weak cytotox CCRF-CEM // *

628 Cnidaria *Cladiella tuberculosa* // Penghu Archipelago, Taiwan // Cladieunicellins R and S, new eunicellins from the Formosan octocoral *Cladiella tuberculosa*
1146 // N // cladieunicellin R // non-cytotox // *
1147 // N // cladieunicellin S // mod. cytotox to 3 HTCLs // *

629 Cnidaria *Pinnigorgia* sp. // Green Is., Taiwan // Pinnigorgiols A–C, 9,11-secosterols with a rare ring arrangement from a gorgonian coral *Pinnigorgia* sp.
1148 // N // pinnigorgiol A // cytotox to rat hepatic stellate cells and inhib. prod. of superoxide and elastase release. // *
1149 // N // pinnigorgiol B // cytotox to rat hepatic stellate cells and inhib. prod. of superoxide and elastase release. // *
1150 // N // pinnigorgiol C // inhib. prod. of superoxide and elastase release. // *

630 Cnidaria *Pinnigorgia* sp. // Green Is., Taiwan // New anti-inflammatory 9,11-secosterols with a rare tricyclo[5,2,1,1]decane ring from a Formosan gorgonian *Pinnigorgia* sp.
1151 // N // pinnigorgiol D // cytotox to rat hepatic stellate cells and inhib. prod. of superoxide and elastase release. // 11-acetyl pinnigorgiol A
1152 // N // pinnigorgiol E // cytotox to rat hepatic stellate cells and inhib. prod. of superoxide and elastase release. // 11-acetyl pinnigorgiol B



631 Cnidaria *Pinnigorgia* sp. // Green Is., Taiwan // Pinnisterols A–C, new 9,11-secosterols from a gorgonian *Pinnigorgia* sp.
1153 // N // pinnisterol A // cytotox to rat hepatic stellate cells and inhib. prod. of superoxide and elastase release. // *
1154 // N // pinnisterol B // IA // *
1155 // N // pinnisterol C // inhib. prod. of superoxide and elastase release. // *

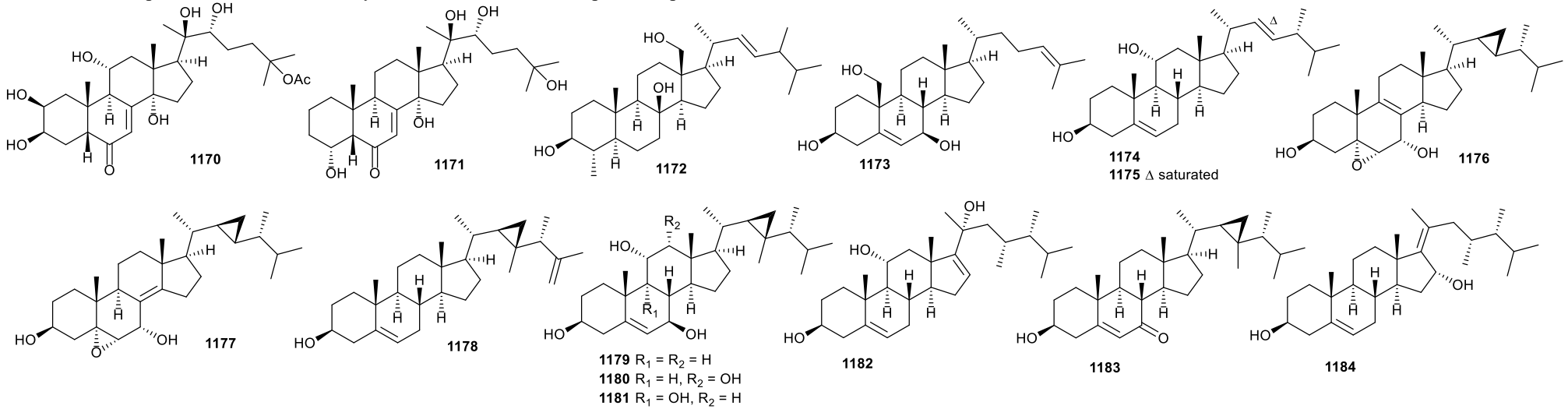
632 Cnidaria *Clavularia* sp. // Ishigaki Is., Okinawa, Japan // Haebaruol, a 9,11-secosteroid isolated from the soft coral *Clavularia* sp.
1156 // N // haebaruol // mod cytotox to HeLa cell line. // Abs config by X-ray and Moshers

633 Cnidaria *Pinnigorgia* sp. // Green Is., Taiwan // New anti-inflammatory sterols from a gorgonian *Pinnigorgia* sp.
1157 // N // 11-acetoxy-24S-methyl-3β,5α,6α-trihydroxy-9,11-secocholest-7-en-9-one // Reduced iNOS and COX-2 expression // *
1158 // N // 5β,6β-epoxy-(22E,24R)-ergosta-8,22-diene-3β,7β-diol // Reduced iNOS and COX-2 expression // *

634 Cnidaria *Muricella sibogae* // Weizhou Is., Guangxi Province, China // Characteristic steroids from the South China Sea gorgonian *Muricella sibogae* and their cytotoxicities
1159 // N // sibogol D // weak cytotox to 4 TLC's // *
1160 // N // sibogol E // weak cytotox to 4 TLC's // *
1161 // N // sibogol F // weak cytotox to 4 TLC's // *

635 Cnidaria *Subergorgia suberosa* // Yongxin Is., S. China Sea // Pregnane steroids from a gorgonian coral *Subergorgia suberosa* with anti-flu virus effects
1162 // N // subergorgol T // weak antiviral activ // Abs config by TDDFT/ECD
1163 // N // subergorgol U // weak antiviral activ // *
1164 // N // subergorgol V // IA // *
1165 // N // subergorgol W // IA // *
1166 // N // subergorgol X // IA // *

636 Cnidaria *Umbellulifera petasites* // Kaohsiung, Taiwan // Bioactive steroids from the Formosan soft coral *Umbellulifera petasites*
1167 // N // petasitosterone A // mod cytotox // *
1168 // N // petasitosterone B // mod cytotox and mod inhib. of superoxide prod. // *
1169 // N // petasitosterone C // mod cytotox and mod inhib. of superoxide prod. // *



637 Cnidaria *Zoanthus* sp. // Taitung County, Taiwan // Ecdysones from *Zoanthus* spp. with inhibitory activity against dengue virus 2
1170 // N // zoanthone A // mod antiviral activ // *

638 Cnidaria *Palythoa mutuki* // Keelung City, Taiwan // Anti-Dengue virus constituents from Formosan zoanthid <I>Palythoa mutuki</I>
1171 // N // palythone A // weak antiviral activ // Abs config by TDDFT/ECD

639 Cnidaria *Nephthea* sp. // Hurghada, Egypt // New cytotoxic constituents from the Red Sea soft coral *Nephthea* sp.
1172 // N // 4α,24-dimethyl-5α-cholest-8β,18-dihydroxy,22E-en-3β-ol // weak cytotox MCF-7 // *

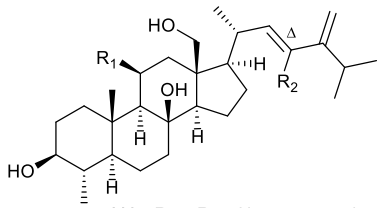
640 Cnidaria *Pacifigorgia senta* // Xisha Is. // Cytotoxic 19-oxygenated steroids from the South China Sea gorgonian, *Pacifigorgia senta*
1173 // N // cholest-5,24-diene-3β,7β,19-triol // mod cytotox to 5 HTCLs // *

641 Cnidaria *Pinnigorgia* sp. // Green Is., Taiwan // New marine sterols from an algal-bearing gorgonian coral *Pinnigorgia* sp
1174 // N // (22E,24R)-ergosta-5,22-diene-3β,11α-diol // IA vs hepatic stellate cells // *
1175 // N // (24S)-ergosta-5-ene-3β,11α-diol // IA vs hepatic stellate cells // *
1176 // N // 5α,6α-epoxy-23-demethylgorgost-8-ene-3β,7α-diol // IA vs hepatic stellate cells // *
1177 // N // 5α,6α-epoxy-23-demethylgorgost-8(14)-ene-3β,7α-diol // IA vs hepatic stellate cells // *

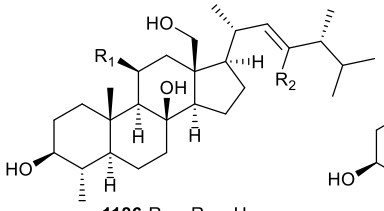
642 Cnidaria *Lobophytum lobophytum* // Hurghada, Egypt // A new steroid from the Red Sea soft coral *Lobophytum lobophytum*
1178 // N // gorgostan-5,25-dien-3β-ol // NT // *

643 Cnidaria *Klyxum flaccidum* // Hsiao Liuchiu Is., Taiwan // New cytotoxic and anti-inflammatory steroids from the soft coral *Klyxum flaccidum*
1179 // N // klyflaccisteroid G // non-cytotox // *
1180 // N // klyflaccisteroid H // weak cytotox P388 // *
1181 // N // klyflaccisteroid I // non-cytotox // *
1182 // N // klyflaccisteroid J // mild cytotox to 3 TCLs, inhib. superoxide formation and elastase release // *

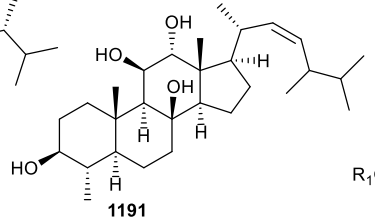
644 Cnidaria *Sinularia microspiculata* // Da Den, Quangninh, Vietnam // Steroid constituents from the soft coral *Sinularia microspiculata*
1183 // N // 7-oxogorgosterol // non-cytotox // *
1184 // N // 16α-hydroxysarcosterol // non-cytotox // *



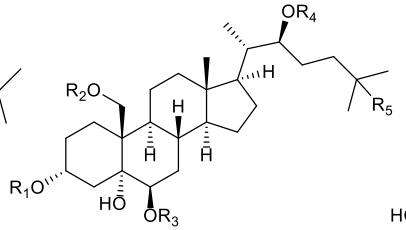
1185 $R_1 = R_2 = H$, Δ saturated
1187 $R_1 = R_2 = H$
1189 $R_1 = OH$, $R_2 = OAc$, Δ saturated



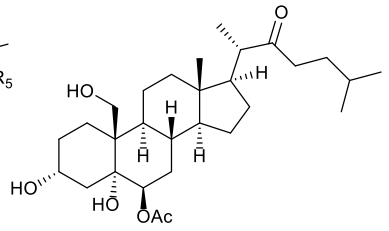
1186 $R_1 = R_2 = H$
1188 $R_1 = OH$, $R_2 = H$
1190 $R_1 = OH$, $R_2 = Me$



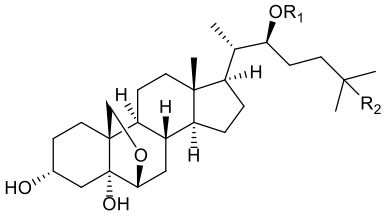
1191



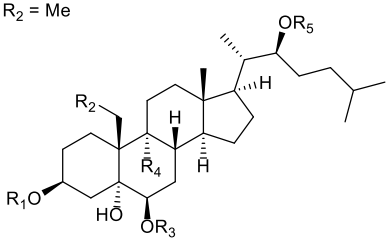
1192 $R_1 = R_2 = R_4 = R_5 = H$, $R_3 = Ac$
1193 $R_1 = R_3 = Ac$, $R_2 = R_4 = R_5 = H$
1194 $R_1 = R_2 = R_5 = H$, $R_3 = R_4 = Ac$
1196 $R_1 = R_2 = H$, $R_3 = R_4 = Ac$, $R_5 = OH$
1197 $R_1 = R_4 = Ac$, $R_2 = R_3 = H$, $R_5 = OH$
1198 $R_1 = R_2 = R_4 = Ac$, $R_3 = H$, $R_5 = OH$
1199 $R_1 = R_3 = R_4 = Ac$, $R_2 = H$, $R_5 = OH$



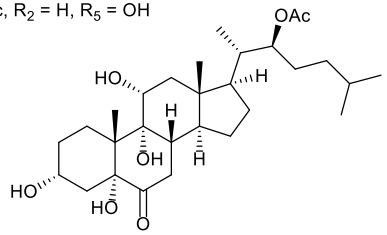
1195



1200 $R_1 = R_2 = H$
1201 $R_1 = Ac$, $R_2 = H$
1202 $R_1 = Ac$, $R_2 = OH$



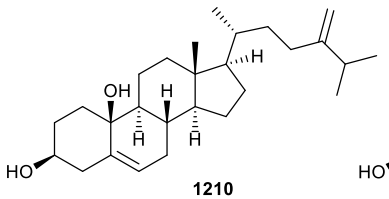
1203 $R_1 = R_4 = R_5 = H$, $R_2 = OH$, $R_3 = Ac$
1204 $R_1 = R_3 = Ac$, $R_2 = OH$, $R_4 = R_5 = H$
1205 $R_1 = R_4 = H$, $R_2 = OH$, $R_3 = R_5 = Ac$
1206 $R_1 = H$, $R_2 = R_4 = OH$, $R_3 = R_5 = Ac$
1207 $R_1 = R_2 = R_3 = H$, $R_4 = OH$, $R_5 = Ac$
1208 $R_1 = R_2 = R_4 = R_5 = H$, $R_3 = Ac$

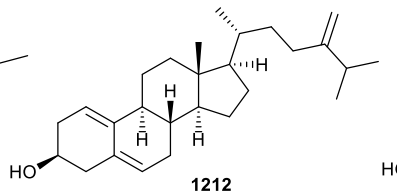


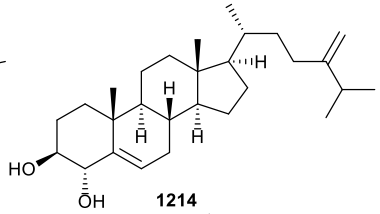
1209

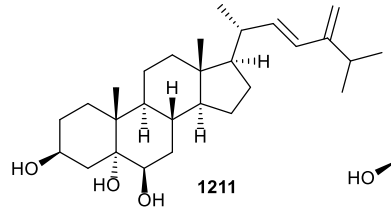
645 Cnidaria *Litophyton mollis* // Hurghada, Egypt // 4α-Methylated steroids with cytotoxic activity from the soft coral *Litophyton mollis*
1185 // N // 4α,24-dimethyl-5α-cholest-24(28)-en-3β,8β,18-triol // mod cytotox to 2 HTCLs // *
1186 // N // (22E,24R)-4α,24-dimethyl-5α-cholest-22-en-3β,8β,18-triol // non-cytotox // *
1187 // N // (22E)-4α,24-dimethyl-5α-cholesta-22,24(28)-dien-3β,8β,18-triol // non-cytotox // *
1188 // N // (22E,24R)-4α,24-dimethyl-5α-cholest-22-en-3β,8β,11β-triol // mod cytotox to 2 HTCLs // *
1189 // N // 23ξ-acetoxy-4α,24-dimethyl-5α-cholest-24(28)-en-3β,8β,11β-triol // mod cytotoxty vs K562 cell line // *
1190 // N // (22E,24R)-4α,23,24-trimethyl-5α-cholest-22-en-3β,8β,11β-triol // non-cytotox // *
1191 // N // (22Z)-4α,24ξ-dimethyl-5α-cholest-22-en-3β,8β,11β-triol // NT // *

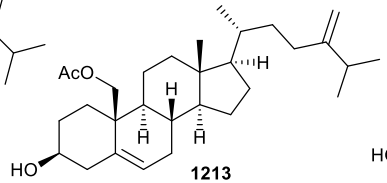
646 Cnidaria *Gorgonia* sp. // Aleta Is., Panama // Oxysterols from an octocoral of the genus *Gorgonia* from the eastern Pacific of Panama
1192 // N // * // weak anti-Leishmanial // *
1193 // N // * // IA // *
1194 // N // * // IA // *
1195 // N // * // IA // *
1196 // N // * // IA // *
1197 // N // * // NT // *
1198 // N // * // IA // *
1199 // N // * // IA // *
1200 // N // * // IA // *
1201 // N // * // IA // *
1202 // N // * // IA // *
1203 // N // * // NT // *
1204 // N // * // NT // (22S) by MPA anal., (20S) by NOE
1205 // N // * // weak AB and weak anti-Leishmanial // (3S) by MPA anal.
1206 // N // * // weak AB // *
1207 // N // * // IA // *
1208 // N // * // IA // *
1209 // N // * // IA // *

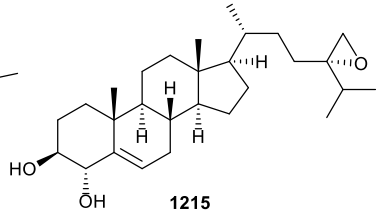


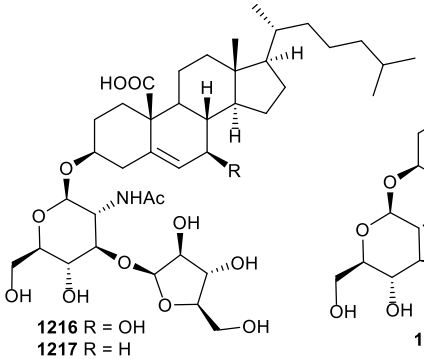


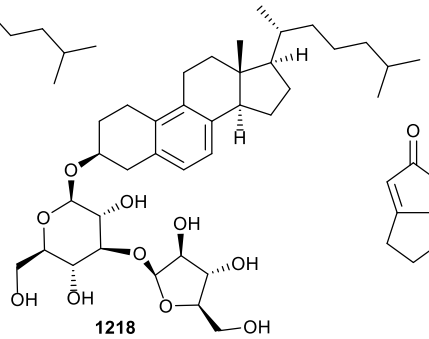


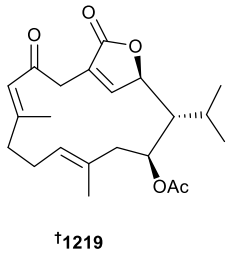










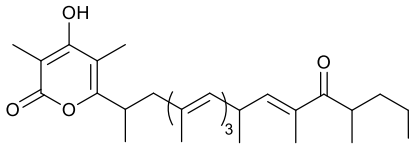


647 Cnidaria *Nephthea columnaris, Litophyton columnaris* // S. Taiwan // Columnaristerol A, a novel 19-norsterol from the Formosan octocoral *Nephthea columnaris*
1210 // N // columnaristerol A // weak cytotox to MOLT-4 and SUP-T1 cell lines // *
648 Cnidaria *Sinularia* sp. // Leizhou Peninsula, Zhanjiang, Guangdong Province, China // Isolation of a new cytotoxic polyhydroxysterol from the South China Sea soft coral *Sinularia* sp.
1211 // N // (22E)-24-methylenecholestane-22-ene-3β,5α,6β-triol // weak cytotox to 2 HTCLs // *
649 Cnidaria *Nephthea erecta*, *Litophyton erectum* // Pingtung, Taiwan // Cytotoxic oxygenated steroids from the soft coral *Nephthea erecta*
1212 // N // nephtheasteroid A // non-cytotox (4 HTCLs) // *
1213 // N // nephtheasteroid B // non-cytotox (4 HTCLs) // *

650 Cnidaria *Sinularia nanolobata* // Lang Co, Hue, Vietnam // Steroid constituents from the soft coral *Sinularia nanolobata*
1214 // N // 3β,4α-dihydroxyergosta-5,24(28)-diene // non-cytotox // *
1215 // N // 24(S),28-epoxyergost-5-ene-3β,4α-diol // mild to weak cytotox (3 HTCLs) // *

651 Cnidaria *Astrogorgia dumbea* // Dongshan Is., P. R. China // Unusual cytotoxic steroidal saponins from the gorgonian *Astrogorgia dumbea*
1216 // N // astrogorgioside A // weak cytotox // *
1217 // N // astrogorgioside B // weak cytotox // *
1218 // N // astrogorgioside C // weak cytotox // *

652 Cnidaria *Sarcophyton* sp. // // Total synthesis of sarcophytonolide H and isosarcophytonolide D: structural revision of isosarcophytonolide D and structure–antifouling activity relationship of sarcophytonolide H
1219 // R // isosarcophytonolide D // * // struct. revision based upon total synth.



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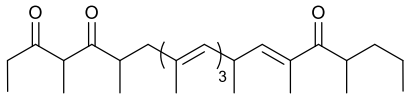

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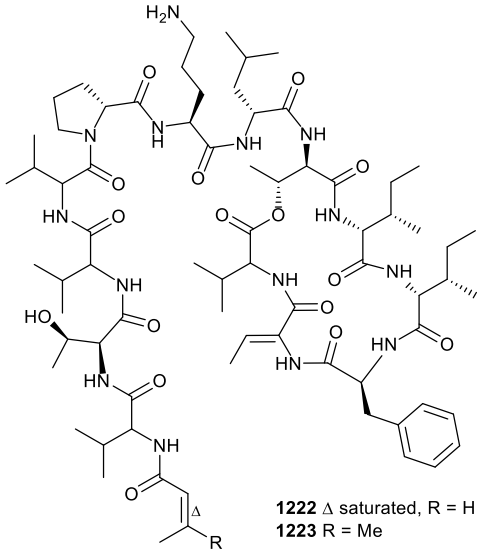
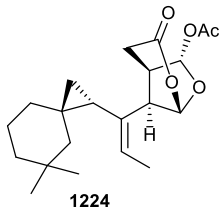


1222 Δ saturated, R = H
1223 R = Me



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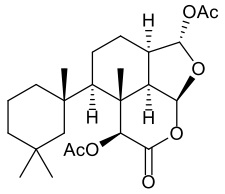

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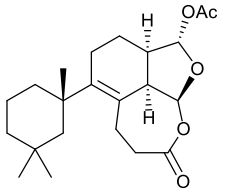

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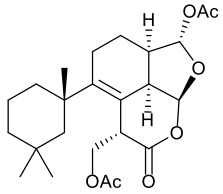

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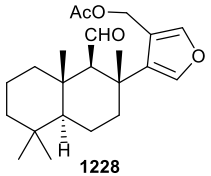

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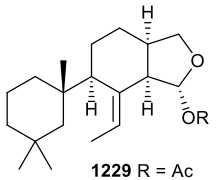
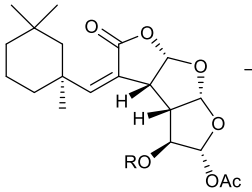


1229 R = Ac
1230 R = H

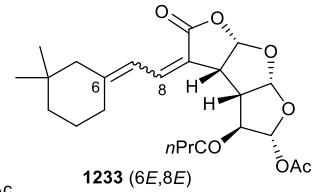
673 Mollusca *Haminoea exigua* // Étang de Thau, France // Exiguapyrone and exiguaone, new polypropionates from the Mediterranean cephalaspidean mollusc *Haminoea exigua*
1220 // N // exiguapyrone // NT // *
1221 // N // exiguaone // NT // *

674 Mollusca *Elysia ornata* // Okha, India // Kahalalide F analogues from the mucous secretion of Indian sacoglossan mollusc *Elysia ornata*
1222 // N // kahalalide Z_1 // AF, AB, cytotox. (4HTCL) // Marfey's anal.: Ala units undefined.
1223 // N // kahalalide Z_2 // AF, AB, cytotox. (4HTCL) // Marfey's anal.: Ala units undefined.

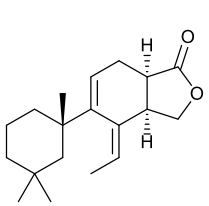
675 Mollusca *Goniobranchus splendidus, G. verrieri* // Gold Coast Seaway, Australia // Rearranged diterpenes and norditerpenes from three Australian *Goniobranchus* mollusks
1224 // N // verrielactone // NT // *
1225 // N // splendidalactone-1 // NT // *
1226 // N // splendidalactone-2 // NT // *
1227 // N // tetrahydroaplysulphurin-4 // NT // *
1228 // N // tyrinnal B // NT // *
1229 // N // 16-deacetoxy-9,11-dihydrogracilin A // NT // *
1230 // N // 15,16-deacetoxy-15-hydroxy-9,11-dihydrogracilin A // NT // *



1231 R = Ac
1232 R = *n*PrCO



1233 (6*E*,8*E*)
1234 (6*Z*,8*E*)
1235 (6*E*,8*Z*)
1236 (6*Z*,8*Z*)



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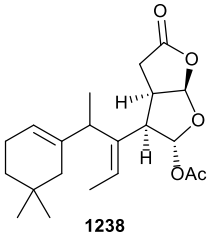

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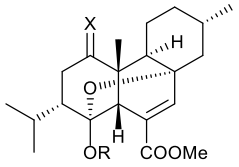
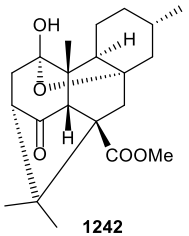
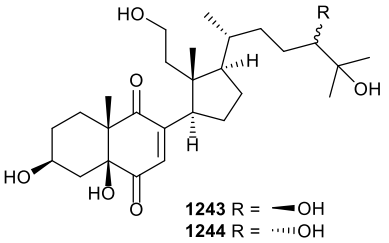


1239 R = H, X = O
1240 R = H, X = OAc ,H
1241 R = Me, X = O



1242

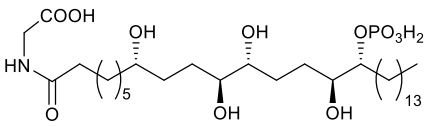


1243 R = OH
1244 R = OH

676 Mollusca *Goniobranchus splendidus*, *G. daphne* // Inner Gneerings Reefs, Mooloolaba, S. East Queensland, Australia // New cytotox. norditerpenes from the Australian nudibranchs Goniobranchus splendidus and Goniobranchus daphne
1231 // R // gracilin G // NT // *
1232 // N // gracilin M // NT // *
1233 // N // gracilin N // NT // *
1234 // N // gracilin O // cytotox. (HeLa S3) // *
1235 // N // gracilin P // cytotox. (HeLa S3) // *
1236 // N // gracilin Q // cytotox. (HeLa S3) // *
1237 // N // aplytandiene-3 // NT // *
1238 // N // daphnelactone // NT // *

677 Mollusca *Phyllodesmium longicirrum* // Lizard Is., Great Barrier Reef, Australia // Defensive diterpene from the aeolidoidean *Phyllodesmium longicirrum*
1239 // N // 4-oxochatancin // Feeding deterent vs fish // *
1240 // N // (4R)-acetoxychatancin // NT // *
1241 // N // 1-O-methyl-4-oxochatancin // NT // *
1242 // N // 1-oxo-9-hydroisochatancin // NT // *

678 Mollusca *Aplysia kurodai* // Shima peninsula, Mie Prefecture, Japan // Aplysiasecosterols B and C: two new 9,11-secosteroids with a *cis*-fused 1,4-quinone structure from the sea hare *Aplysia kurodai*
1243 // N // aplysiasecosterol B // NT // *
1244 // N // aplysiasecosterol C // NT // *



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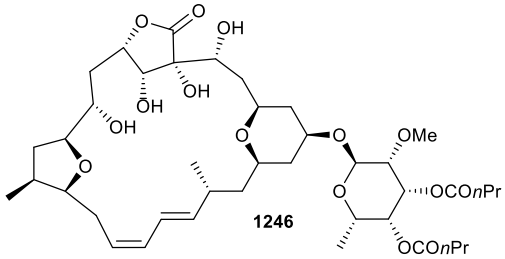

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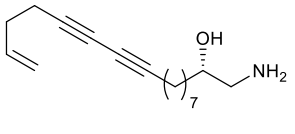

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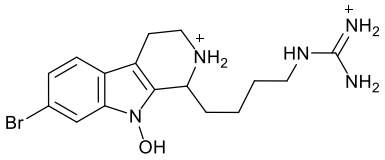

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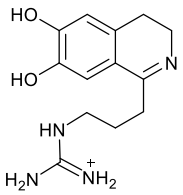

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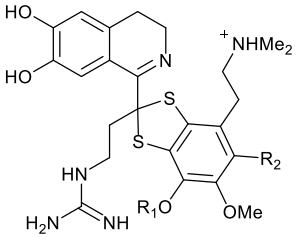
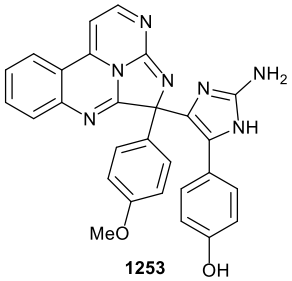
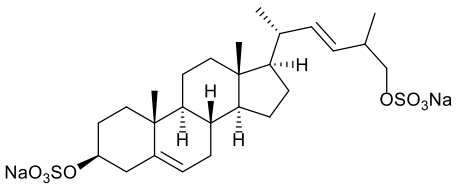


1250 $R_1 = R_2 = H$
1251 $R_1 = Me$, $R_2 = SMe$
1252 $R_1 = Me$, $R_2 = H$

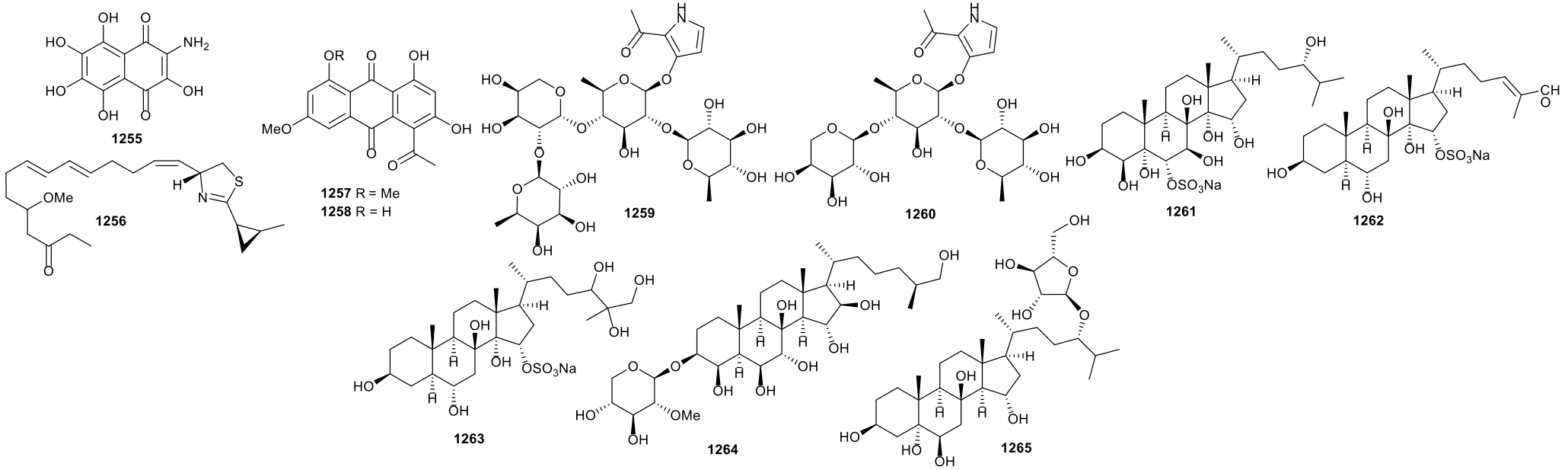


1253



1254

695 Chordata *Sidnyum elegans* // Capo Caccia, Alghero, Italy // Structure and configuration of phosphoeleganin, a protein tyrosine phosphatase 1B inhibitor from the Mediterranean ascidian *Sidnyum elegans*
1245 // N // phosphoeleganin // mod. inhib. PTP1B, non-cytotox., IA to panel of PTKs // Abs. config. at 3 positions, relative at remaining two.
696 Chordata *Lissoclinum* sp. // Algoa Bay, Eastern Cape Province, S. Africa // Discovery of mandelalide E and determinants of cytotox.ity for the mandelalide series
1246 // N // mandelalide E // mod. cytotox. (2HTCLs) // *
697 Chordata *Pseudodistoma opacum* // Ti Point, Northland, New Zealand // Biologically active acetylenic amino alcohol and *N*-hydroxylated 1,2,3,4-tetrahydro-β-carboline constituents of the New Zealand ascidian *Pseudodistoma opacum*
1247 // N // distaminolyne A // mod. AB activ. // *
1248 // N // 7-bromo-*N*-hydroxyhomotrypargine // mod. antiplasmodial activ. // *
698 Chordata // Republic of Palau // Mellpaladines and dopargimine, novel neuroactive guanidine alkaloids from a Palauan Didemnidae tunicate
1249 // N // dopargimine // Bound to variety of synaptic receptors, activ. upon intracerebroventricular injection // *
1250 // N // mellpaladine A // Bound to variety of synaptic receptors, activ. upon intracerebroventricular injection // *
1251 // N // mellpaladine B // Bound to variety of synaptic receptors, activ. upon intracerebroventricular injection // *
1252 // N // mellpaladine C // * // *
699 Chordata *Eudistoma* sp. // Koror/Airai Channel, Palau // Characterization and synthesis of eudistidine C, a bioactive marine alkaloid with an intriguing molecular scaffold
1253 // N // eudistidine C // Antiplasmodial, mod. inhib. of HIF-1a / p300 binding // synth. and SAR performed.
700 Chordata *Phallusia fumigata* // Pozzuoli, Napoli, Italy // Phallusiasterol C, a new disulfated steroid from the Mediterranean tunicate *Phallusia fumigata*
1254 // N // phallusiasterol C // IA as PXR agonist. // *



717 Echinodermata *Strongylocentrotus pallidus*, *Mesocentrotus nudus* // Onekotan Is. // New aminonaphthoquinone from the sea urchins *S. pallidus* and *M. nudus*
1255 // N // spinamine E // mod. AO // *

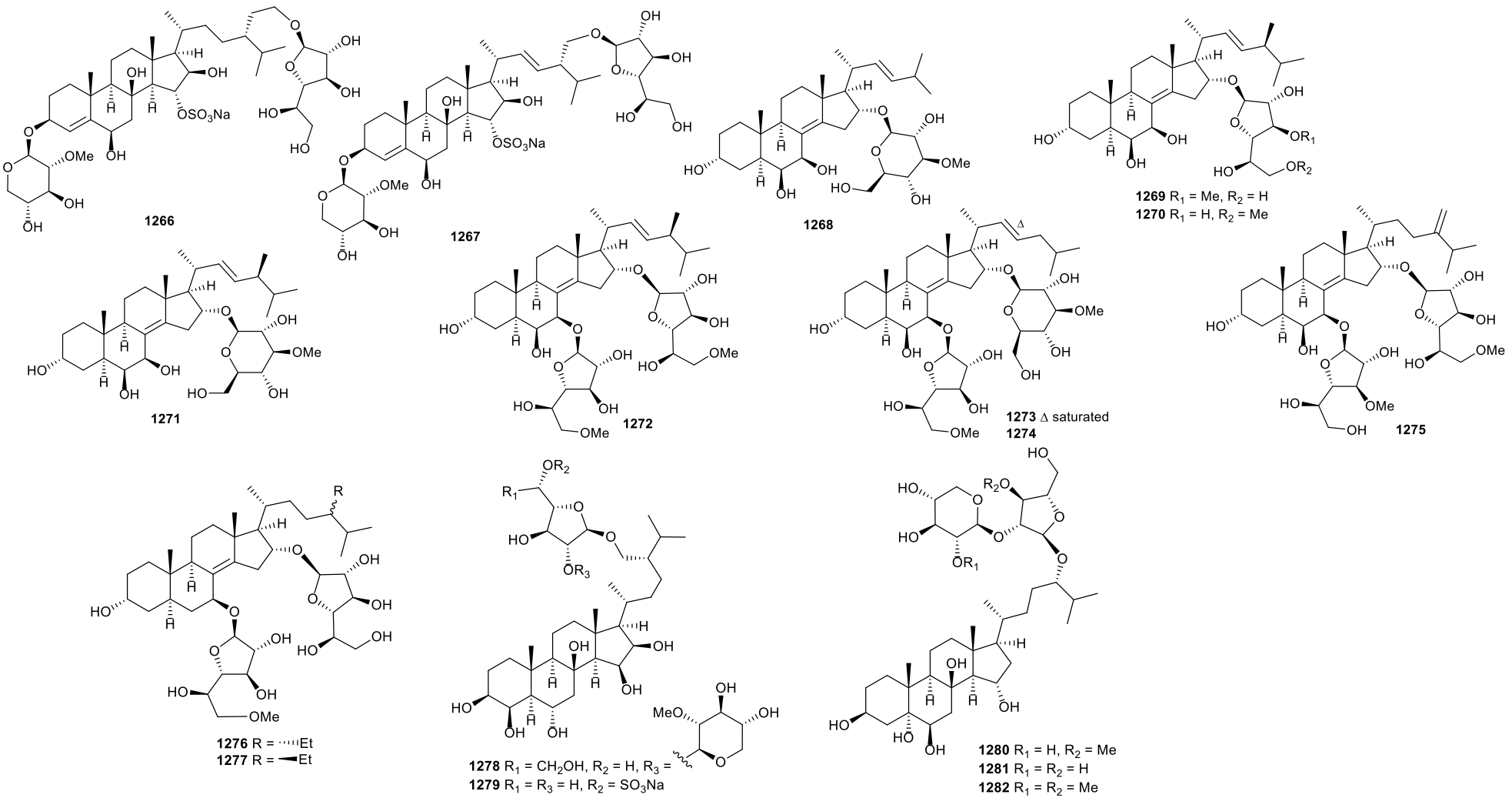
718 Echinodermata *Ophiocoma scolopendrina* // Kabira Reef, Ishigaki Is., Okinawa Prefecture, Japan, // Curacin E from the brittle star *Ophiocoma scolopendrina*
1256 // N // curacin E // cytotox. (P388), no HDAC inhib.. // *

403 Echinodermata *Comatula rotalaria,* Porifera *Clathria hirsuta* // Cooktown, Australia // Rhodocomatulin-type anthraquinones from Australian invertebrates *C. hirsuta* and *C. rotalaria*
1257 // N // 12-desethylrhodocomatulin 5,7-dimethyl ether // NT // *
1258 // N.// 12-desethylrhodocomatulin 7-methyl ether // NT // *

720 Echinodermata *Acanthaster planci* // Con Co Is., Quangtri Province, Vietnam // Pyrrole oligoglycosides from the starfish *Acanthaster planci* suppress lipopolysaccharide-induced nitric oxide production in RAW264.7 macrophages
1259 // N // plancipyrroside A // mod. inhib. of NO prod. // *
1260 // N // plancipyrroside B // mod. inhib. of NO prod. // *

721 Echinodermata *Archaster typicus* // Haiphong, Vietnam // Further highly hydroxylated steroids from the Vietnamese starfish *Archaster typicus*
1261 // N // sodium (24S)-5α-cholestane-3β,4β,5,6α,7β,8,14,15α,24-nonaol 6-sulfate // NT // *
1262 // N // sodium (24E)-5α-cholest-24-ene-26-yde-3β,6α,8,14,15α-pentaol 15-sulfate // NT // *
1263 // N // sodium 5α-cholest-3β,6α,8,14,15α,24,25,26-octaol 15-sulfate // NT // *

722 Echinodermata *Protoreaster lincki* // Palk Bay, Bay of Bengal, India // Four new steroidal glycosides, protolinckiosides A–D, from the starfish *Protoreaster lincki*
1264 // N // protolinckioside A // inhib. formation of ROS in stimulated macrophages // *
1265 // N // protolinckioside B // inhib. formation of ROS in stimulated macrophages // *
1266 // N // protolinckioside C // inhib. formation of ROS in stimulated macrophages // *
1267 // N // protolinckioside D // inhib. formation of ROS in stimulated macrophages // *

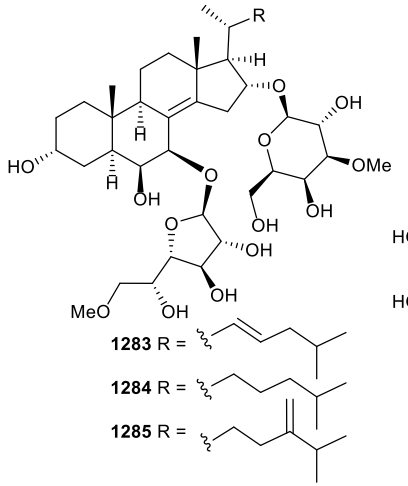


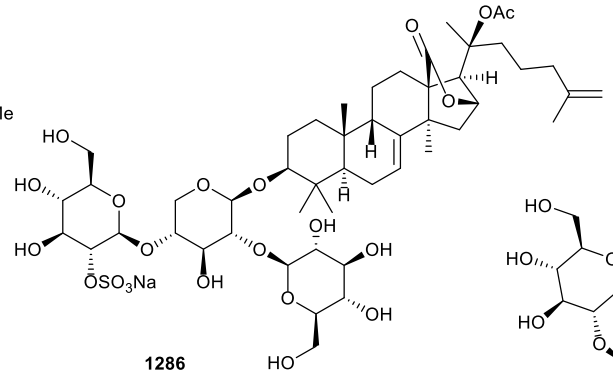
723 Echinodermata *Anthenea aspera* // Khuan Lan Is., Tu Long Bay // Anthenosides L–U, steroidal glycosides with unusual structural features from the starfish *Anthenea aspera*
1268 // N // anthenoside L // IA cytotox./haemolysis/ROS inhib. // *
1269 // N // anthenoside M // IA cytotox./haemolysis/ROS inhib. // *
1270 // N // anthenoside N // IA cytotox./haemolysis/ROS inhib. // *

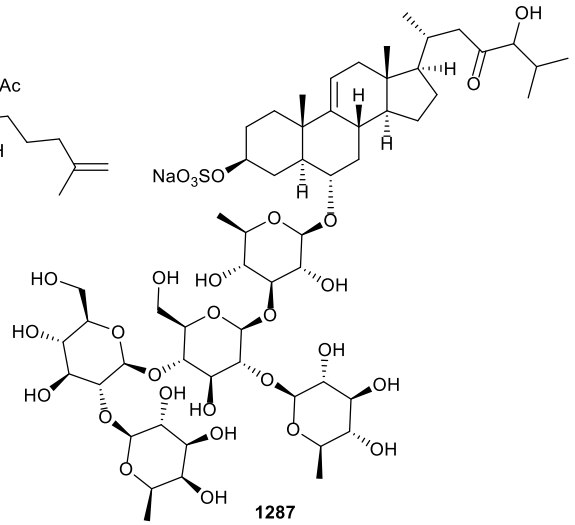
1271 // N // anthenoside O // inhib. formation of ROS in stimulated macrophages // *
1272 // N // anthenoside P // IA cytotox./haemolysis/ROS inhib. // *
1273 // N // anthenoside Q // IA cytotox./haemolysis/ROS inhib. // *
1274 // N // anthenoside R // IA cytotox./haemolysis/ROS inhib. // *
1275 // N // anthenoside S // IA cytotox./haemolysis/ROS inhib. // *
1276 // N // anthenoside T // mixt. haemolytic // characterised as mixt. with /10
1277 // N // anthenoside U // mixt. haemolytic // characterised as mixt. with /9

724 Echinodermata *Acanthaster planci* // Con Co Is., Vietnam // New steroidal glycosides from the starfish *Acanthaster planci*
1278 // N // planciside E // NT // *
1279 // N // planciside F // NT // *

725 Echinodermata *Pentaceraster regulus* // Cham Is., Vietnam // Regulusosides A, B, and C, three new polyhydroxysteroid glycosides from the starfish *Pentaceraster regulus*
1280 // N // regulusoside A // Increased ROS prod. in macrophages // *
1281 // N // regulusoside B // Increased ROS prod. in macrophages // *
1282 // N // regulusoside C // NT // *



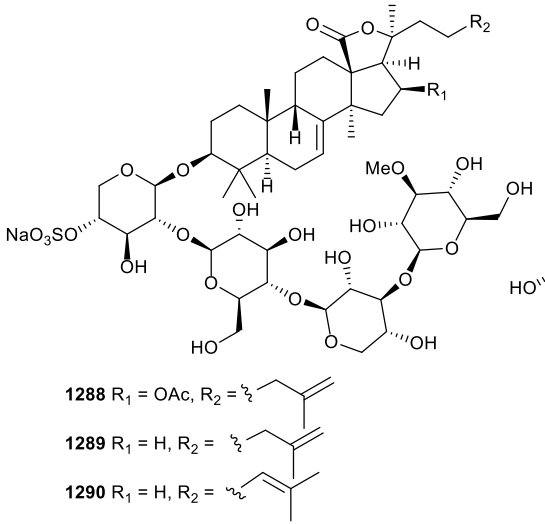


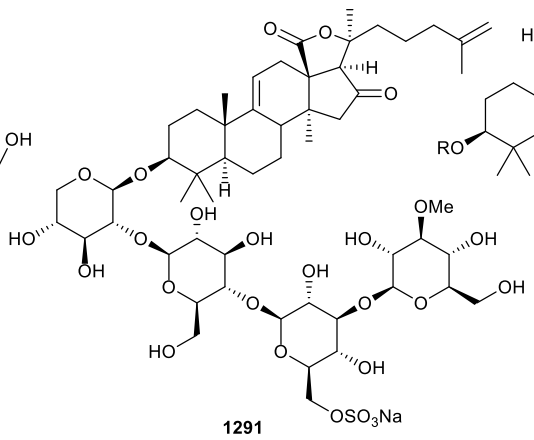


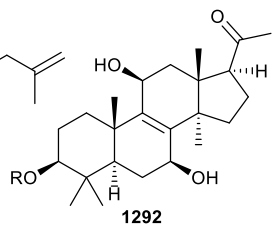
726 Echinodermata *Craspidaster hesperus* // Shantou, Guangdong Province, China // Three new cytotox. polyhydroxysteroidal glycosides from starfish Craspidaster hesperus
1283 // N // hesperuside A // mod. cytotox. (3HTCL) // *
1284 // N // hesperuside B // mod. cytotox. (3HTCL) // *
1285 // N // hesperuside C // mod. cytotox. (3HTCL) // *

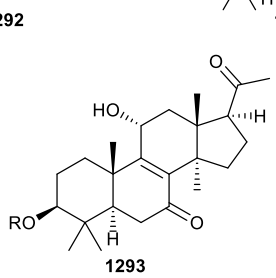
727 Echinodermata *Colochirus robustus* // Nha Trang Gulf, Vietnam // Colochiroside E, an unusual non-holostane triterpene sulfated trioside from the sea cucumber *Colochirus robustus* and evidence of the impossibility of a 7(8)-double bond migration in lanostane derivatives having an 18(16)-lactone
1286 // N // colochiroside E // Not cytotox., weak haemolytic // *

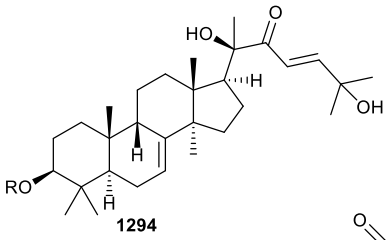
728 Echinodermata *Aphelasterias japonica* // Posyet Bay, Sea of Japan // Aphelasteroside F, a new asterosaponin from the Far Eastern starfish *Aphelasterias japonica*
1287 // N // aphelasteroside F // weak cytotox., inhib. tumour colony formation // *

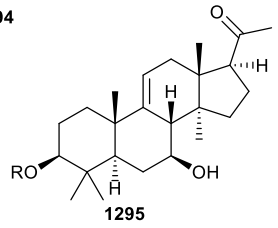


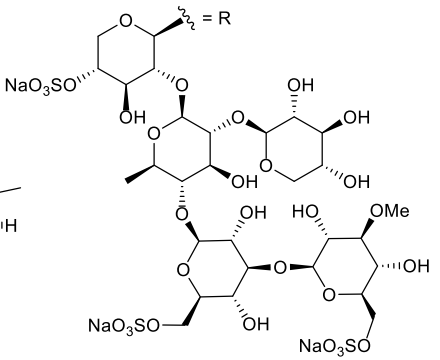




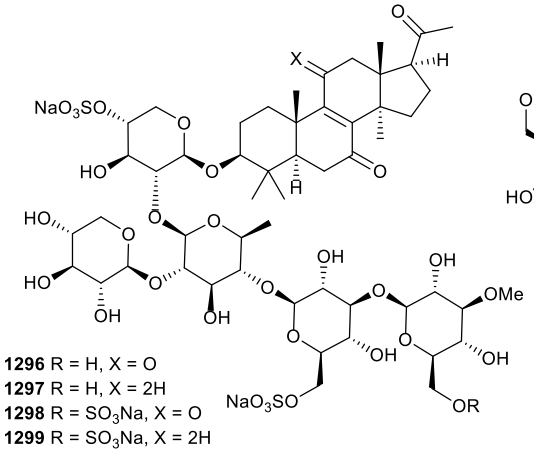


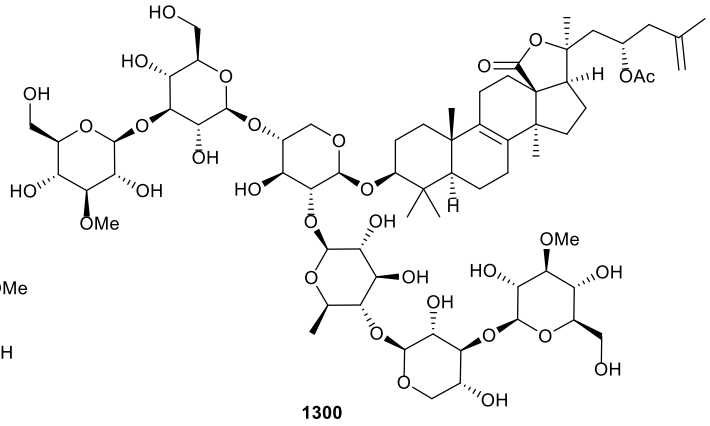




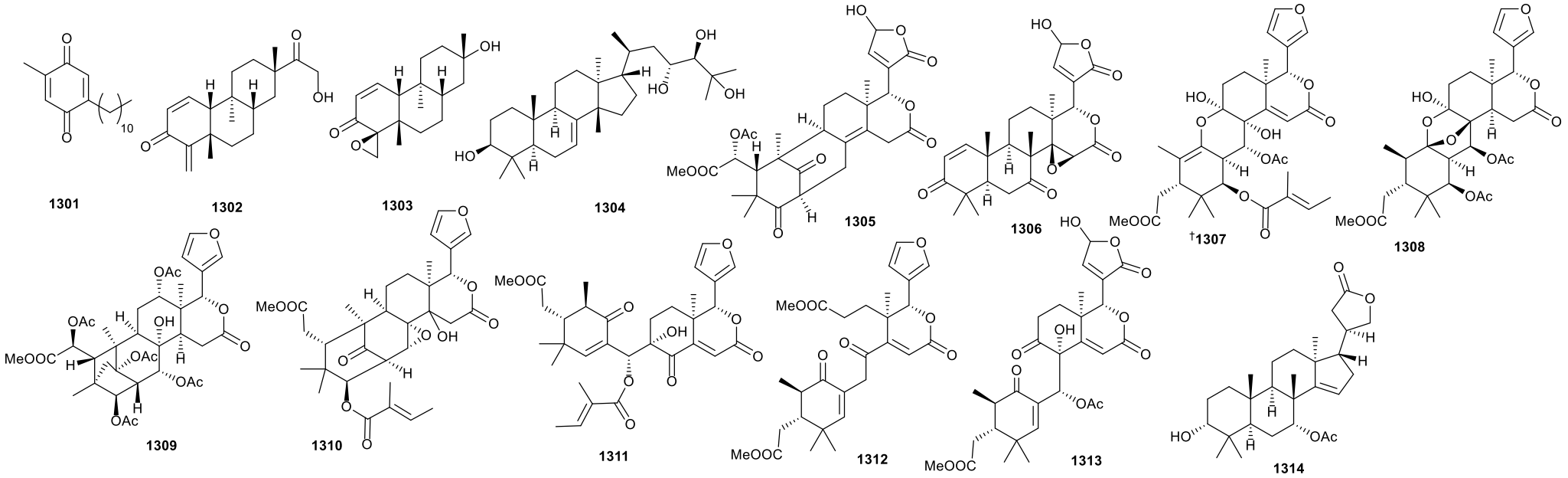


729 Echinodermata *Colochirus robustus* // Nha Trang Bay, Vietnam // Colochirosides A_1, A_2, A_3, and D, four novel sulfated triterpene glycosides from the sea cucumber *Colochirus robustus* (Cucumariidae, Dendrochirotida).
1288 // N // colochiroside A1 // Strongly cytotox. (1TCL) and haemolytic // *
1289 // N // colochiroside A2 // mod. cytotox. (1TCL) and haemolytic // *
1290 // N // colochiroside A3 // Strongly cytotox. (1TCL) and haemolytic // *
1291 // N // colochiroside D // Strongly cytotox. (1TCL) and haemolytic // *
730 Echinodermata *Cucumaria fallax* // Black Brothers Is., Russia // Structures and biogenesis of fallaxosides D4, D5, D6 and D7, trisulfated non-holostane triterpene glycosides from the sea cucumber *Cucumaria fallax*
1292 // N // fallaxoside D4 // Not cytotox., not haemolytic // *
1293 // N // fallaxoside D5 // Not cytotox., not haemolytic // *
1294 // N // fallaxoside D6 // Not cytotox., not haemolytic // *
1295 // N // fallaxoside D7 // Not cytotox., not haemolytic // *





731 Echinodermata *Cucumaria fallax* // Black Brothers Is., Russia // Fallaxosides C1, C2, D1 and D2, unusual oligosulfated triterpene glycosides from the sea cucumber *Cucumaria fallax* (Cucumariidae, Dendrochirotida, Holothurioidea) and taxonomic status of this animal
1296 // N // fallaxoside C1 // Not cytotox., not haemolytic // *
1297 // N // fallaxoside C2 // Not cytotox., not haemolytic // *
1298 // N // fallaxoside D1 // Not cytotox., not haemolytic // *
1299 // N // fallaxoside D2 // Not cytotox., not haemolytic // *
732 Echinodermata *Astichopus multifidus* // Yucalpeten, Yucatán, Mexico // Total NMR assignment of a new antiproliferative triterpene oligoglycoside from the sea cucumber *Astichopus multifidus*
1300 // N // astichoposide D // mod. cytotox. (2 HTCL, Vero) // *

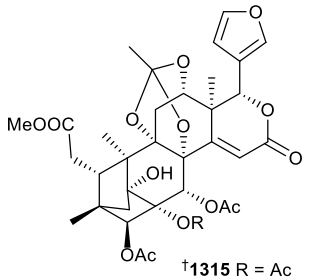


748 Tracheophyta *Aegiceras corniculatum* // Godavari estuary, India // A new embelin from the mangrove *Aegiceras corniculatum*
1301 // N // 2,5-didehydroxy-6-methylembelin // mod. antimalarial activ. // stems and leaves

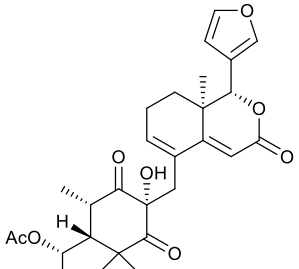
749 Tracheophyta *Ceriops tagal* // Hainan Is., P. R. China // Two new dolabranes from the Chinese mangrove *Ceriops tagal*
1302 // N // tagalsin V // NT // *
1303 // N // tagalsin W // NT // *

750 Tracheophyta *Xylocarpus moluccensis* // Trang Province, Thailand // A tirucallane and two pairs of tetranortriterpene 23-epimers from the Thai mangrove *Xylocarpus moluccensis*
1304 // N // 3β-hydroxy-3-decarbonyl-24-epipiscidinol A // NT // *
1305 // N // thaimoluccepimer A // NT // *
1306 // N // thaimoluccepimer B // NT // *

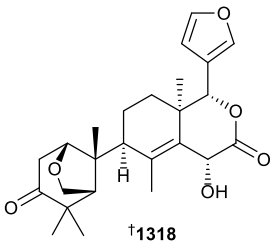
751 Tracheophyta *Xylocarpus granatum* // Dongzhai Harbor, Hainan province, China // Novel and neuroprotective tetranortriterpenoids from Chinese mangrove *Xylocarpus granatum* Koenig
1307 // N // 9-epi-xylogranatin A // IA in neuroprotective assay // Abs. config. by TDDFT ECD calc.
1308 // N // xylogranatumin A // IA in neuroprotective assay // *
1309 // N // 6-O-acetyl xylocarpin D // IA in neuroprotective assay // *
1310 // N // 14-hydroxy-14,15-dihydrogranatumin C // IA in neuroprotective assay // *
1311 // N // 30-O-tigloylhainangranatumin J // IA in neuroprotective assay // *
1312 // N // 9-O-methyl xylogranatin R // IA in neuroprotective assay // *
1313 // N // 30-O-acetylhainangranatumin E // IA in neuroprotective assay // *
1314 // N // 1,2-dihydro-3α-hydroxy-turranolide // IA in neuroprotective assay // struct. missing D14 olefin in publication



†**1315** R = Ac
†**1316** R = H

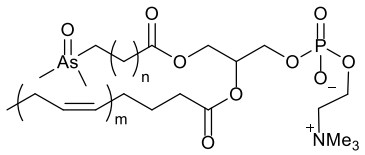


†**1317**

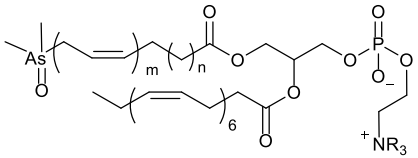


†**1318**

752 Tracheophyta *Xylocarpus moluccensis* // Trang Province, Thailand // Thaixylomolins O–R: four new limonoids from the Trang mangrove, *Xylocarpus moluccensis*
1315 // N // thaixylomolin O // IA to 7 HTCLs // Abs. config. by X-Ray diffrac.
1316 // N // thaixylomolin P // weak cytotox. to two ovarian lines // Abs. config. by ECD compar.
1317 // N // thaixylomolin Q // IA to 7 HTCLs // Abs. config. by X-Ray diffrac.
1318 // N // thaixylomolin P // IA to 7 HTCLs // Abs. config. by TDDFT ECD calc.



1319 n = 13, m = 5
1320 n = 13, m = 6
1321 n = 15, m = 6



1322 n = 4, m = 5, R = Me
1323 n = 2, m = 6, R = Me
1324 n = 2, m = 8, R = H

753 Chordata *Clupea harengus*, *Oncorhynchus tshawytscha* // Norwegian Sea // Arsenic-containing phosphatidylcholines: a new group of arsenolipids discovered in herring caviar
1319 // N // AsPC 885 // * // Prop. struct. Undefined glycerol ester point of substitution and alkene position and geometry
1320 // N // AsPC 911 // * // prop. struct. Undefined glycerol ester point of substitution and alkene position and geometry
1321 // N // AsPC 939 // * // prop. struct. Undefined glycerol ester point of substitution and alkene position and geometry
1322 // N // AsPC 985 // * // prop. struct. Undefined glycerol ester point of substitution and alkene position and geometry
1323 // N // AsPC 997 // * // prop. struct. Undefined glycerol ester point of substitution and alkene position and geometry
1324 // N // AsPE 1035 // * // prop. struct. Undefined glycerol ester point of substitution and alkene position and geometry

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