

Recent progress in the total synthesis of pyrrole-containing natural products (2011-2020)

Nidhi Singh^{a#}, Snigdha Singh^{a#}, Sahil Kohli^a, Aarushi Singh^a, Hannah Asiki^b, Garima Rathee^a, Ramesh Chandra^{a,c*} and Edward A. Anderson^{b*}

^a Department of Chemistry, University of Delhi, Delhi 110007, India

^b Chemistry Research Laboratory, University of Oxford, 12 Mansfield Road, Oxford, OX1 3TA, U.K.

^c Dr .B. R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi 110007, India

*Corresponding author: Prof. Edward A. Anderson

Chemistry Research Laboratory,
University of Oxford, 12 Mansfield Road,
Oxford, OX1 3TA, U.K.

Email:edward.anderson@chem.ox.ac.uk

*Corresponding author: Prof. Ramesh Chandra,

Drug Discovery & Development Laboratory,
Department of Chemistry, University of Delhi and
Dr.B.R.Ambedkar Center for Biomedical Research,
University of Delhi, Delhi- 110007, India
Email:acbrdu@hotmail.com, rameshchandragroup@gmail.com

Authors with equal contributions

Table S1: Strategies used for the total syntheses of pyrrole containing natural products

Serial Number	Methods/Protocols	Reference	Section
1	Palladium catalysed cross coupling reaction	17	2.1.1
2	Oxidative free radical cyclization reaction	29	2.1.3
3	C ₂ -symmetric bisthiourea catalyzed reaction	35	2.1.4
4	Phosphoryl transfer terminated macroaldolization	43	2.2.2
5	Enantioselective DielsAlder reaction	51	2.2.5
6	Arene-ynamide cyclization	57	2.3.3
7	Bromine-directed lithiation and palladium-catalyzed cross-coupling	60	2.3.4
8	Gold catalysed annulation reaction	65	2.3.5
9	Reformatsky reaction and intramolecular Mitsunobu reactions	67	2.3.6
10	Intramolecular Friedel Crafts type cyclization and oxidative cyclization	78	2.4.1
11	Stereoselective spirocyclization	85	2.4.3
12	Maillard reaction	96	3.1.1
13	Benzyne-mediated cyclization functionalization reaction	102	3.3.2
14	Intramolecular Heck reaction, Fischer indolization and Schollkopf–Magnus–Barton–Zard (SMBZ) reaction	104	3.3.3