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Coordination Frameworks/Networks Containing Compounds as Catalysts

Girijesh Kumar^a and Samar K. Das^{b*}

^aDepartment of Chemistry and Centre of Advanced Studies in Chemistry, Panjab University, Chandigarh–160014, India

^bSchool of Chemistry, University of Hyderabad, Hyderabad–500046, India.

Appendix: Chemical name of the ligands / metalloligands along with the abbreviations used in the manuscript.

Ligand	Chemical name	Ligand	Chemical name
L ¹	[5,10,15,20-Tetrakis(4-carboxyphenyl)porphyrinato]-Fe(III)chloride	L ⁶²	N,N'-bis-pyridin-4-ylmethylene-hydrazine or 1,4-bis(4-pyridyl)-2,3-diaza-1,3-butadiene
L ²	{[5,10,15,20-Tetrakis(4-carboxyphenyl)porphyrinato]M}	L ⁶³	9H-carbazole-2,7-dicarboxylate
L ³	Terephthalate	L ⁶⁴	2,5-bis(4-pyridyl)-3,4-diaza-2,4-hexadiene
L ⁴	2,6-naphthalenedicarboxylate	L ⁶⁵	N ¹ ,N ⁴ -bis-((pyridin-4-yl)methylene)benzene-1,4-diamine
L ⁵	2,5-dimethyl benzenedicarboxylate	L ⁶⁶	Pyridine-2,3,5,6-tetracarboxylate
L ⁶	1,4-dibromo-2,3,5,6-tetrakis(4-carboxyphenyl)-benzene	L ⁶⁷	(E)-4-(2-(pyridin-4-yl)vinyl) benzoate
L ^{7a}	4,4'-((2,3-dimethoxy-1,4-phenylene)bis(ethyne-2,1-diyl))dipyridine	L ⁶⁸	(2S,2'S,2''S)-2,2',2''-(benzenetri- carbonyltris(azanediyl)) tripropanoic acid
L ^{7b}	4,4'-((2,3-bis((tert-butyl)dimethylsilyloxy)-1,4-phenylene)bis(ethyne-2,1-diyl))dipyridine	L ⁶⁹	Terphenyl-3,3'-dicarboxylate
L ^{7c}	4,4'-((2,3-bis((2-nitrobenzyl)oxy)-1,4-phenylene)bis(ethyne-2,1-diyl))dipyridine	L ⁷⁰	2-acetamidoterephthalate
L ^{7d}	3,6-bis(pyridin-4-ylethynyl)-1,2-phenylenedi-tert-butyl dicarbonate	L ⁷¹	2-propionamidoterephthalate
L ⁸	2,5-dihydroxy-1,4-benzenedicarboxylate or 2,5-dioxido-1,4-benzenedicarboxylate or 2,5-dioxido-1,4-benzenedicarboxylate	L ⁷²	2-benzamidoterephthalate
L ⁹	4,4'-bipyridyl	L ⁷³	1,1'-bis(5,6-dimethylbenzimidazole)methane
L ¹⁰	Silicotungstic acid	L ⁷⁴	1,4-bis(5,6-dimethyl benzimidazole) butane
L ^{10a}	Phosphotungstate	L ⁷⁵	1,1'-(1,4-butanediyl)bis(2-methylbenzimidazole)
L ^{10b}	Phosphomolybdate	L ⁷⁶	1,1'-(1,3-propanediyl) bis(2-methylbenzimidazole)
L ¹¹	E-5-(2-(pyridin-4-yl)vinyl)-isophthalate	L ⁷⁷	cis-1,2-cyclohexanedicarboxylate
L ¹²	5,5'-(3,4-diphenylcyclobutane-1,2-diyl)diisophthalate	L ⁷⁸	1,1'-(1,4-butanediyl)bis-1H-benzimidazole
L ¹³	1,4-bis[(3,5-dimethyl)-4-pyrazolate]benzene	L ⁷⁹	1,3-bis(5,6-dimethylbenzimidazol-1-yl)-2-propanol
L ¹⁴	(R,R)-thiazolidine-2,4-dicarboxylate	L ⁸⁰	5-hydroxyisophthalic acid
L ¹⁵	1,3,5-benzenetricarboxylate	L ⁸¹	1,3-bis-(5,6-dimethylbenzimidazole-1-yl-methylene)-benzene
L ¹⁶	terphenyl-3,2'',5'',3'-tetracarboxylate	L ⁸²	1,4-cyclohexanedicarboxylate
L ¹⁷	5-nitroisophthalate	L ⁸³	Pyridine-2,6-dicarboxylate
L ¹⁸	5-methylisophthalic acid	L ⁸⁴	bis(imidazol-1-yl)methane
L ¹⁹	3,5-disulfobenzoate	L ⁸⁵	Isophthalate
L ²⁰	1,10-phenanthroline	L ⁸⁶	chloro(η ⁵ -pentamethyl cyclopentadienyl)(2-(4-carboxyl)phenyl-(5-carboxyl)pyridine- C ₂ ,N')iridium(III)
L ²¹	2,6,2',6'-tetranitro-biphenyl-4,4'-dicarboxylic acid	L ⁸⁷	chloro(η ⁵ -pentamethylcyclopentadienyl)(5,5'-dicarboxyl-2,2'-bipyridine)iridium(III) chloride
L ²²	2,2',2''-[1,3,5-triazine-2,4,6-triyltris(thio)]tris-acetic acid	L ⁸⁸	diaqua-bis(2-(4-carboxyl)phenyl-(5-carboxyl)pyridine-C ₂ ,N')iridium(III) triflate
L ²³	1,3,5-benzenetristetrazol-5-yl	L ⁸⁹	tris-carbonyl-chloro(5,5'-dicarboxyl-2,2'-bipyridine)rhenium(I)
L ²⁴	2-aminoterephthalate	L ⁹⁰	bis(4-phenyl-2-pyridine)(5,5'-dicarboxyl-2,2'-bipyridine)iridium(III) chloride
L ²⁵	tris(4-pyridyl) triazine	L ⁹¹	[bis(2,2'-bipyridine,N ₁ ,N _{1'})(5,5'-dicarboxy-2,2'-bipyridine) ruthenium(II)]dichloride
L ²⁶	2-(azidomethyl)triphenylene	L ⁹²	Phenylenediacylate
L ²⁷	bis-(4-imidazol-1-yl-phenyl)-diazene	L ⁹³	4-carboxycinnamic dianion
L ²⁸	1,3,5-tri(4-carboxyphenoxy)benzene	L ⁹⁴	5-(3-pyridyl)tetrazole
L ²⁹	N,N'-bis(3-pyridyl)pyridine-2,6-dicarboxamide	L ⁹⁵	1,4-naphthalenedicarboxylate
L ³⁰	N,N'-bis(4-pyridyl)pyridine-2,6-dicarboxamide	L ⁹⁶	tetrakis(4-pyridyl)cyclobutane
L ³¹	2,6-bis(4-benzoate-carbonyl)pyridine	L ⁹⁷	2,3-naphthalenedicarboxylate
L ³²	2,6-bis(3-benzoate-carbonyl)pyridine	L ⁹⁸	(E)-1,2-di(pyridin-4-yl)ethene
L ³³	1H-1,2,4-triazole	L ⁹⁹	2,2'-bipyridine
L ³⁴	Maleic acid	L ¹⁰⁰	[2,2'-bipyridine]-5,5'-dicarboxylic acid
L ³⁵	Fumaric acid	L ¹⁰¹	4,4'-(1H-1,2,4-triazole-3,5-diyl)dipyridine
L ³⁶	6,6'-(((1R,2R)-cyclohexane-1,2-diyl)bis(azanediyl))bis(methylene))bis(2-(tert-butyl)-4-(pyridin-4-yl)phenol)	L ¹⁰²	[2,2'-bipyridine]-4,4'-dicarboxylic acid

L ³⁷	1,3,5-Tris(4-carboxyphenyl)benzene	L ¹⁰³	4,4'-bis(4-methyl-1H-imidazol-1-yl)-1,1'-biphenyl
L ³⁸	4,4'-oxydibenzoate	L ¹⁰⁴	5-((4,2':6',4''-terpyridin]-4'-yl)isophthalic acid
L ³⁹	<i>N,N'</i> -piperazine-bis(methylenephosphonate)	L ¹⁰⁵	4,4'-([2,2'-bipyridine]-5,5'-diyl)dibenzoic acid
L ⁴⁰	(<i>R,R</i>)-(-)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(3- <i>tert</i> -butyl-5-(4-pyridyl)salicylidene)	L ¹⁰⁶	(<i>R,R</i>)-(-)- <i>N,N'</i> -(3-carboxyl-5- <i>tert</i> -butylsalicylidene)-1,2-cyclohexanediamine)Ru ^{III} py ₂ Cl
L ⁴¹	(<i>S,S</i>)-(-)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(3- <i>tert</i> -butyl-5-(4-pyridyl)salicylidene)	L ¹⁰⁷	(<i>R,R</i>)-(-)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(4-(3- <i>tert</i> -butyl-5-formyl-4-hydroxystyryl)benzoate)Mn ^{III} Cl
L ⁴²	Biphenyl-4,4'-dicarboxylate	L ¹⁰⁸	tris(3-pyridyl)triazine
L ⁴³	(2,5-bis(3-pyridyl)-1,3,4-oxadiazole)	L ¹⁰⁹	2-(1H-1,2,4-triazole)-1-acetate)
L ⁴⁴	(2,5-bis(4-pyridyl)-1,3,4-oxadiazole)	L ¹¹⁰	1,6-naphthalenedicarboxylate
L ⁴⁵	(<i>R,R</i>)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(3- <i>tert</i> -butyl-salicylidene)Mn ^{III} Cl	L ¹¹¹	3,3',5,5'-azobenzenetetracarboxylate
L ⁴⁶	(<i>R,R</i>)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(3- <i>tert</i> -butyl-5-(ethylene)salicylidene)Mn ^{III} Cl	L ¹¹²	1,3,5-trimethylimidazole-2,4,6-triethyl benzene
L ⁴⁷	(<i>R,R</i>)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(3- <i>tert</i> -butyl-5-(phenyl)salicylidene)Mn ^{III} Cl	L ¹¹³	<i>N,N',N'',N'''</i> -tetrakis[3- <i>tert</i> -butyl-5-(4-pyridinyl) salicylidene]-1,2,4,5-benzenetetraamine)
L ⁴⁸	Tartarate	L ¹¹⁴	(<i>R,R</i>)-(-)- <i>N,N'</i> -(3-carboxyl-5- <i>tert</i> -butylsalicylidene)-1,2-cyclohexanediamine)
L ⁴⁹	1,2,4,5-tetrakis(4-carboxyphenyl)benzene	L ¹¹⁵	Tris(<i>p</i> -carboxylic acid)tridurylborane
L ⁵⁰	(5,15-dipyridyl-10,20-bis(pentafluorophenyl))porphyrin)	L ¹¹⁶	2-hydroxy-1,2-dihydropyrimidin-2-olate
L ⁵¹	5-methylsulfanylmethyl-1,3-benzenedicarboxylate	L ¹¹⁷	1H-imidazole-2-carboxylate
L ⁵²	5-amino-1,3-benzenedicarboxylate	L ¹¹⁸	tris(4-(1-(2-pyridin-2-ylhydrazono)ethyl)-phenyl) amine)
L ⁵³	2-methoxy-1,3-benzenedicarboxylate	L ¹¹⁹	4,4'-dioxido-[1,1'-biphenyl]-3,3'-dicarboxylate)
L ⁵⁴	<i>N,N'</i> -bis(2-pyridyl)pyridine-2,6-dicarboxamide)	L ¹²⁰	1-(4-carboxyphenyl)-2,5-dimethyl, 1H-pyrrole-3,4-dicarboxylate
L ⁵⁵	1,3,6,8-tetrakis(<i>p</i> -benzoate)pyrene	L ¹²¹	(<i>R,R</i>)-1,2-cyclohexanediamino- <i>N,N'</i> -bis(3-(3- <i>tert</i> -butyl-5-fomyl-4-hydroxyphenyl)acrylic acid)
L ⁵⁶	2-methylimidazolate	L ¹²²	(<i>R,R</i>)- <i>N,N'</i> -bis-(salicylidine)diphenylethylenediamine
L ⁵⁷	Piperazine	L ¹²³	l-Lactate
L ⁵⁸	Imidazole	L ¹²⁴	5,5'-(pentane-1,2-diyl)-bis(oxy)diisophthalic acid
L ⁵⁹	4,4',4''-s-triazine-1,3,5-triyltri- <i>p</i> -aminobenzoate	L ¹²⁵	3,3',5,5'-tetramethyl-3H,3'H-4,4'-bipyrazole
L ⁶⁰	4,4',4''-(benzene-1,3,5-triyltris(azanediy))tribenzoate)	L ¹²⁶	3,3'-methylenebis(1-(4-(methoxycarbonyl)phenyl)-1H-imidazol-3-ium) bromide
L ⁶¹	Methanetetraabenzoate	L ¹²⁷	dimethyl4,4'-(-3,3'-methylenebis(2,3-dihydro-1H-imidazole-3,1-diyl)) dibenzoate palladium bromide

Abbreviations

MIL	Material Institut Lavoisier	OP	One-pot synthesis
Dop	Dopamine	NU	Northwestern University
DMF	<i>N,N</i> -dimethylformamide	oNBn	o-nitrobenzyl
DEF	<i>N,N</i> -diethylformamide	BOC	<i>tert</i> -butoxycarbonyl
MMPF	Metal-metalloporphyrin framework	thp	Thiophene
CHF	Covalent heme framework	PM	Post modification
Py	Pyridine	IRMOF	Isorecticular metal-organic framework
Pr	Proline	CUP	China University of Petroleum
