

Abbreviations

Abbreviation	Unabbreviated names	
acacH	acetylacetone	pentan-2,4-dione
acenH ₂	<i>N,N'</i> -ethylenebis(acetylacetoneimine)	4,9-dimethyl-5,8-diazadodeca-4,8-diene-2,11-dione
alaH	alanine	
ampy	2-(aminomethyl)pyridine	
atm	atmosphere	
BINAP	2,2'-bis(diphenylphosphino)-1,1'-binaphthyl	
bpy	2,2'-bipyridine	
Bu	butyl	
^t Bu	<i>tert</i> -butyl	2-methyl-2-propyl
Bz	benzyl	
CASSCF	complete active-space self-consistent field	
CD	circular dichroism	
CI	configuration interaction	
cod	cycloocta-1,5-diene	
coe	cyclooctene	
COSY	correlated spectroscopy	
Cp	η^5 -cyclopentadienyl	
Cp*	η^5 -pentamethylcyclopentadienyl	
CT	charge transfer	
CV	cyclovoltammogram	
CVD	chemical vapor deposition	
Cy (cy)	cyclohexyl	
cyclam	1,4,8,11-tetraazacyclotetradecane	
cysH	cysteine	
dba	dibenzylideneacetone	1,5-diphenylpenta-1,4-diene-3-one
DBU	1,8-diazabicyclo[5.4.0]undec-7-ene	
dcpe	1,2-bis(dicyclohexylphosphino)ethane	
de	diastereomeric excess	
depe	1,2-bis(diethylphosphino)ethane	
dien	diethylenetriamine	bis(2-aminoethyl)amine;
	1,4,7-triazaheptane	
<i>R,R</i> -diop	(-)-2,3- <i>O</i> -isopropylidene-2,3-dihydroxy-1,4-bis(diphenylphosphino)butane	
dme	1,2-dimethoxyethane	

dmf	<i>N,N</i> -dimethylformamide	<i>N,N</i> -dimethylmethanamide
dmgH ₂	dimethyl glyoxime	
dmpe	1,2-bis(dimethylphosphino)ethane	
dmpm	1,2-bis(dimethylphosphino)methane	
dmsO	dimethylsulfoxide	
DNA	deoxyribose nucleic acid	
DNMR	dynamic nuclear magnetic resonance	
dpmp	bis{(diphenylphosphino)methyl}phenylphosphine	
dppb	1,4-bis(diphenylphosphino)butane	
dppe	1,2-bis(diphenylphosphino)ethane	
dppf	1,1'-bis(diphenylphosphino)ferrocene	
dppm	1,1-bis(diphenylphosphino)methane	
dppp	1,3-bis(diphenylphosphino)propane	
dtc	dithiocarbamate	
edtaH ₄	ethylenediaminetetraacetic acid	<i>N,N,N',N'</i> -tetrakis(acetato)-1,2-diaminoethane
EHMO	extended Hückel molecular orbital	
en	ethylenediamine	1,2-diaminoethane
ENDOR	electron-nuclear double resonance	
EPR	electron paramagnetic resonance	
ESR	electron spin resonance	
Et	ethyl	
EXAFS	extended X-ray absorption fine structure	
FAB	fast atom bombardment	
Fc	ferrocene	
fcc	face-centred cubic	
FT	Fourier transform	
glyH	glycine	
hisH	histidine	
hmpa	hexamethylphosphoramide	
hmpt	hexamethylphosphorous triamide	
HOMO	highest occupied molecular orbital	
HPLC	high performance liquid chromatography	
HBpz ₃	hydridotris(pyrazolyl)borate	
HBpz* ₃	hydridotris(3,5-dimethylpyrazolyl)borate	
imH (ImH)	imidazole	
IR	infrared	
LC	ligand centred	

leuH	leucine	
LL	ligand-to-ligand	
LMCT	ligand-to-metal charge transfer	
LUMO	lowest unoccupied molecular orbital	
MAS-NMR	magic angle spinning-nuclear magnetic resonance	
MCD	magnetic circular dichroism	
Me	methyl	
3,5-Me ₂ pzH	3,5-dimethylpyrazole	
4,4'-Me ₂ bpy	4,4'-dimethyl-2,2'-bipyridine	
3,4,5-Me ₃ pzH	3,4,5-trimethylpyrazole	
Mes	mesityl	
MLCT	metal-to-ligand charge transfer	
MO	molecular orbital	
morph	morpholine	
mqH	8-methylquinoline	
MS	mass spectrometry	
MS-X α	multiple scattering X α	
nbd	norbornadiene	
NMR	nuclear magnetic resonance	
NOE	nuclear Overhauser effect	
NOESY	nuclear Overhauser effect spectroscopy	
NQR	nuclear quadrupole resonance	
nta	nitritotriacetic acid	
Oe	Oersted	
OEPH ₂	2,3,7,8,12,13,17,18-octaethylporphyrin	
oxH ₂	oxalic acid	ethanedioic acid
pcH ₂	phthalocyanine	
PE	photoelectron	
Ph	phenyl	
phen	1,10-phenanthroline	
PPN	bis(triphenylphosphine)iminium(1+)	
ppyH	2-phenylpyridine	
ⁿ Pr	<i>n</i> -propyl	
ⁱ Pr	<i>iso</i> -propyl	2-propyl
proH	proline	
py	pyridine	
pyrr	pyrrolidine	

pzH	pyrazole	
RNA	ribose nucleic acid	
SacacH	thioacetylacetone	4-oxopentane-2-thione
SacSacH	dithioacetylacetate	pentane-2,4-dithione
salenH ₂	<i>N,N'</i> -ethylenebis(salicylideneimine)	
salphenH ₂	<i>N,N'</i> -1,2-phenylenebis(salicylideneimine)	
salpnH ₂	<i>N,N'</i> -1,2-propylenebis(salicylideneimine)	
SCE	saturated calomel electrode	
SCF	self-consistent field	
sep	sepulchrate	
serH	serine	
SOD	superoxide dismutase	
SSCE	saturated sodium calomel electrode	
tacn	1,4,7-triazacyclononane	
tartH ₂	tartaric acid	
tcne	tetracyanoethene	
tcnq	7,7,8,8-tetracyanoquinodimethane	
terpy	2,2':6',2"-terpyridine	
tfacenH ₂	<i>N,N'</i> -bis(trifluoroacetylacetoneimine)	1,1,1,12,12,12-hexafluoro-4,9-dimethyl-5,8-diazadodeca-4,8-diene-2,11-dione
TfOH	triflic acid	
TGA	thermogravimetric analysis	
thf	tetrahydrofuran	
tht	tetrahydrothiophene	
t.l.c.	thin layer chromatography	
tmen	tetramethylethylenediamine	<i>N,N,N,N'</i> -tetramethyl-1,2-diaminoethane
TMPH ₂	5,10,15,20-tetramesitylporphyrin	
TMpyPH ₂	5,10,15,20-tetrakis(1-methylpyridinium-4-yl)porphyrin	
TPCH ₂	tetraphenylchlorin	
TPFPPH ₂	5,10,15,20-tetrakis(pentafluorophenyl)porphyrin	
TPivPPH ₂	5,10,15,20-tetrakis($\alpha,\alpha,\alpha,\alpha$ -pivalamidophenyl)porphyrin	
TPPH ₂	5,10,15,20-tetraphenylporphyrin	
TPPSH ₂	5,10,15,20-tetrakis(4-sulfonatophenyl)porphyrin	
TPyPH ₂	5,10,15,20-tetrakis(4-pyridyl)porphyrin	
tren	<i>N,N,N</i> -tris(2-aminoethyl)amine	
trien	1,4,7,10-tetraazadecane	
triphos	1,1,1- <i>tris</i> (diphenylphosphinomethyl)ethane	
tu	thiourea	

UV	ultraviolet
UV-VIS	ultraviolet-visible
V	volt
valH	valine
vpy	4-vinylpyridine
XPS	X-ray photoelectron spectroscopy