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Modulator*

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LIST OF ABBREVIATIONS

5HT _{3A} R	serotonin type 3A receptor
A	alanine
AAA	Asymmetric Allylic Alkylation
Å	Ångstrom
[α] _D	specific rotation at wavelength of sodium D line
Ac	acetyl
ACAT	acyl-CoA:cholesterol acyltransferase
ACh	acetylcholine
AD	Alzheimer's Disease
APCI	atmospheric pressure chemical ionization
app	apparent
aq	aqueous
AIBN	2,2'-azobisisobutyronitrile
Ar	aryl
atm	atmosphere
BBN	borabicyclononane
BCRP	Breast Cancer Resistance Protein
BINAP	2,2'-bis(diphenylphosphino)-1,1'-binaphthyl
BINOL	1,1'-bi(2-naphthol)
Bn	benzyl
Boc	<i>tert</i> -butyloxycarbonyl
BOX	bisoxazoline
br	broad
BTF	benzotrifluoride

Bu	butyl
<i>n</i> -Bu	butyl
<i>t</i> -Bu	<i>tert</i> -Butyl
Bz	benzoyl
<i>c</i>	concentration for specific rotation measurements
°C	degrees Celsius
calc'd	calculated
Cbz	carbobenzyloxy
CCDC	Cambridge Crystallographic Data Centre
cm ⁻¹	wavenumber(s)
cod	1,5-cyclooctadiene
d	doublet
D	deuterium
dba	dibenzylideneacetone
DBU	1,8-diazabicyclo[5.4.0]undec-7-ene
DCE	dichloroethane
DCM	dichloromethane
DEAD	diethyl azodicarboxylate
DFT	density functional theory
DIC	diisopropyl carbodiimide
DM-BINAP	1,1'-binaphthalene-2,2'-diylbis[bis(3,5-dimethylphenyl)phosphine]
DMA	<i>N,N</i> -dimethylacetamide
DMAP	4-dimethylaminopyridine
DMDO	dimethyldioxirane
DME	dimethoxyethane
DMF	<i>N,N</i> -dimethylformamide

DMSO	dimethyl sulfoxide
DNA	(deoxy)ribonucleic acid
dppf	1,1'-bis(diphenylphosphino)ferrocene
dppp	1,3-bis(diphenylphosphino)propane
dr	diastereomeric ratio
E	electrophile
EC ₅₀	median effective concentration (50%)
ee	enantiomeric excess
EI	electron impact
e.g.	for example (Latin <i>exempli gratia</i>)
equiv	equivalent
ESI	electrospray ionization
Et	ethyl
ETP	epidithiodiketopiperazine
FAB	fast atom bombardment
FDA	food and drug administration
FID	flame ionization detector
FT	fourier transform
g	gram(s)
GABA	γ -aminobutyric acid
GABA _A R	γ -aminobutyric acid type A receptor
gCOSY	gradient-selected correlation spectroscopy
gHMBC	gradient-selected heteronuclear multiple bond correlation
GlyR	glycine receptor
GluR _{2A}	glutamate receptor subunit 2A
h	hour(s)

HMDS	1,1,1,3,3,3-hexamethyldisilazane
HPLC	high-performance liquid chromatography
HRMS	high-resolution mass spectroscopy
HSQC	heteronuclear single quantum coherence
$h\nu$	light
Hz	hertz
IC ₅₀	median inhibition concentration (50%)
IPA	isopropanol
IR	infrared (spectroscopy)
J	coupling constant
λ	wavelength
L	liter; leucine
LA	Lewis acid
LAH	lithium aluminum hydride
LBA	Lewis acid-assisted Brønsted acid
LC-MS	liquid chromatography-mass spectrometry
LDA	lithium diisopropylamide
LGIC	ligand-gated ion channel
LHMDS	lithium bis(trimethylsilyl)amide
m	multiplet; milli
m	meta
m/z	mass to charge ratio
M	metal; molar; molecular ion
Me	methyl
Mes	mesityl
mGlu ₅	metabotropic glutamate receptor
MHz	megahertz

μ	micro
μ waves	microwave irradiation
min	minute(s)
MM	multimode
mol	mole(s)
MOM	methoxymethyl
mp	melting point
mRNA	messenger ribonucleic acid
Ms	methanesulfonyl (mesyl)
MS	molecular sieves
n	nano
N	normal
NAM	negative allosteric modulator
NBS	<i>N</i> -bromosuccinimide
NCS	<i>N</i> -chlorosuccinimide
nd	not determined
NMR	nuclear magnetic resonance
NOE	nuclear Overhauser effect
NOESY	nuclear Overhauser enhancement spectroscopy
NPSP	<i>N</i> -(phenylseleno)phthalimide
nr	no reaction
Nu	nucleophile
<i>o</i>	ortho
OLED	organic light-emitting diode
<i>p</i>	para
PAM	positive allosteric modulator
Ph	phenyl

pH	hydrogen ion concentration in aqueous solution
PhH	benzene
Phth	phthaloyl
PhMe	toluene
PMB	<i>p</i> -methoxybenzyl
PMP	<i>p</i> -methoxyphenyl
ppm	parts per million
PPTS	pyridinium <i>p</i> -toluenesulfonate
Pr	propyl
<i>i</i> -Pr	isopropyl
q	quartet
ref	reference
R	generic for any atom or functional group
Red-Al	sodium bis(2-methoxyethoxy)aluminum dihydride
R_f	retention factor
rt	room temperature
s	singlet
S	serine
sat.	saturated
SFC	supercritical fluid chromatography
SiPr	<i>N,N'</i> -bis(2,6-diisopropylphenyl)dihydroimidazol-2-ylidene
t	triplet
T	tyrosine
TADMAP	3-(2,2,2-triphenyl-1-acetoxyethyl)-4-(dimethylamino)pyridine
TBS	<i>tert</i> -butyldimethylsilyl

TES	triethylsilyl
Tf	trifluoromethanesulfonyl (trifyl)
TFA	trifluoroacetic acid; trifluoroacetyl
TfOH	triflic acid
THF	tetrahydrofuran
TIPS	triisopropylsilyl
TLC	thin-layer chromatography
TMS	trimethylsilyl
TOF	time-of-flight
t_R	retention time
Ts	<i>p</i> -toluenesulfonyl (tosyl)
<i>p</i> -TSA	<i>p</i> -toluenesulfonic acid
UV	ultraviolet
<i>v/v</i>	volume to volume
<i>w/v</i>	weight to volume
X	anionic ligand or halide