

Supporting information

The Current Status of Hydrogen Storage in Metal-Organic Frameworks-Updated

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Abbreviation, full name and chemical structure of the ligands listed in Table 2

1,2-pda

1,2-propanediamine

1,2-dach

1,2-diaminocyclohexane

1,3-bdp

1,3-benzenedi(4-pyrazol-1-ide)

1,4-bdp

1,4-benzenedi(4-pyrazol-1-ide)

2,6-ndc

2,6-naphthalenedicarboxylate

2,7-ndc

2,7-naphthalenedicarboxylate

3,4'-bpdc

3,4'-biphenyldicarboxylate

4,4'-bipy

4,4'-bipyridine

5-at

5-aminotetrazol-1-ide

abdc

2-aminobenzene-1,4-dicarboxylate

abtc

azobenzene-3,3',5,5'-tetracarboxylate

adc

9,10-anthracenedicarboxylate

adip

5,5'-(9,10-anthracenediyl)di-isophthalate

babdc

2-benzamidoterephthalate

bbc

4,4',4''-(Benzene-1,3,5-triyl-tris(benzene-4,1-diyl))tribenzoate

bbnip

5,5',5'',5'''-(2,2'-bis(benzoyloxy)-[1,1'-binaphthalene]-4,4',6,6'-tetrayl)tetraisophthalate

bbta

benzo[1,2-d:4,5-d']bis([1,2,3]triazole)-1,5-diide

bbtei

5,5',5''-(benzene-1,3,5-triyltris(benzene-4,1-diyl))triisophthalate

bceb

5,5'-(1,3-phenylenebis(ethyne-2,1-diyl))diisophthalate

bdc

1,4-benzenedicarboxylate

bpdc

4,4'-biphenyldicarboxylate

bpe

1,2-bis(4-pyridyl)ethane

bpee

1,2-di(pyridin-4-yl)ethane

bpndc

benzophenone 4,4'-dicarboxylate

bpt

biphenyl-3,4',5-tricarboxylate

bptc

3,3',5,5'-biphenyltetracarboxylate

bpybc

4,4'-([4,4'-bipyridine]-1,1'-diium-1,1'-diylbis(methylene))dibenzoate

btb

benzene-1,3,5-tribenzoate

btbz

4,4',4'',4'''-benzene-1,2,4,5-tetrayltetraobenzoate

btc

1,3,5-benzenetricarboxylate

btdd

bis(1,2,3-triazolo-[4,5-b],[4',5'-i])dibenzo[1,4]dioxin

bte

4,4',4''-(Benzene-1,3,5-triyltris(ethyne-2,1-diyl))tribenzoate

btei

5,5',5''-(benzene-1,3,5-triyltris(ethyne-2,1-diyl))triisophthalate

btt

1,3,5-benzenetristetrazolate

cbat

4-(4-carboxylatobenzamido)benzoate

cnc

4-carboxycinnamic

cpip

5-(5-carboxylatopyridin-2-yl)isophthalate

cpmip

5-(5-carboxylatopyrimidin-2-yl)isophthalate

cptt

5'-(4-carboxylatophenyl)-[1,1':3',1''-terphenyl]-3,4'',5-tricarboxylate

cyclam

1,4,8,11-tetraazacyclotetradecane

dabco

1,4-diazabicyclo[2.2.2]octane

dbi

5,5'-(buta-1,3-diyne-1,4-diyl)diisophthalate

dbtb

2,2'-diethoxy-1,1'-binaphthyl-4,4',6,6'-tetrabenzoate

denip

5,5',5'',5'''-(2,2'-diethoxy-[1,1'-binaphthalene]-4,4',6,6'-tetrayl)tetrakisophthalate

dhdip

5,5'-(9,10-dihydrophenanthrene-2,7-diyl)diisophthalate

dhnip

5,5',5'',5'''-(2,2'-dihydroxy-[1,1'-binaphthalene]-4,4',6,6'-tetrayl)tetraisophthalate

diyb

4,4'-(1,4-phenylene)bis(imidazol-1-ide)

dmsdip

5,5'-(dimethylsilanediyl)diisophthalate

dpt

3,6-di-4-pyridyl-1,2,4,5-tetrazine

dpt24

3-(2-pyridyl)-5-(4-pyridyl)-1,2,4-triazolate

ebdc

5,5'-(1,2-ethynediyl)bis(1,3-benzenedicarboxylate)

e-urea

2-imidazolidinone

fma

fumarate

ftpc

2',5'-difluoro-[1,1':4',1''-terphenyl]-3,3'',5,5''-tetracarboxylate

habdc

2-hexanamidoterephthalate

Himdc

1*H*-imidazole-4,5-dicarboxylate

int

isonicotinate

ip

isophthalate

mdip

5,5'-methylene-di-isophthalate

mdpt24

3-(3-methyl-2-pyridyl)-5-(4-pyridyl)-1,2,4-triazolate

miai

2-methylimidazolate-4-amide-5-imidate

mip

5-methylisophthalate

mtb

methanetetra benzoate

mtbdt

3,3',3'',3'''-(methanetetrayltetrakis(benzene-4,1-diyl))tetraacrylate

mtbet

4,4',4'',4'''-((methanetetrayltetrakis(benzene-4,1-diyl))tetrakis(ethyne-2,1-diyl))tetrabenzoate

mtptc

2',5'-dimethyl-[1,1':4',1''-terphenyl]-3,3'',5,5''-tetracarboxylate

mttc

4'',4''''',4''''''',4'''''''''-methanetetrayltetrakis((1,1':4',1''-terphenyl)-4-carboxylate))

ndip

5,5'-(naphthalene-2,6-diyl)diisophthalate

nתי

5,5',5''-((nitrilotris(benzene-4,1-diyl))tris(ethyne-2,1-diyl))triisophthalate

oda

2,2'-oxydiacetate

ox

oxalate

pba

4-(pyridin-4-yl)benzoate

phdip

5,5'-(phenanthrene-2,7-diyl)diisophthalate

pmtb

diphenylmethane-3,3',5,5'-tetrakis(3,5-bisbenzoate)

ptei

5,5'-((5'-(4-((3,5-dicarboxylatophenyl)ethynyl)phenyl)-[1,1':3',1''-terphenyl]-4,4''-diyl)
bis(ethyne-2,1-diyl))diisophthalate

pubdc

2-(3-phenylureido)terephthalate

qptc

quaterphenyl-3,3'',5,5''-tetracarboxylate

tatb

4,4',4''-s-triazine-2,4,6-triyltribenzoate

tcpbda

N,N,N',N'-tetrakis(4-carboxyphenyl)-biphenyl-4,4'-diamine

tcpom

tetrakis[4-(carboxyphenyl)oxamethyl]methane

tfbdc

tetrafluoroterephthalate

tftptc

2',3',5',6'-tetrafluoro-[1,1':4',1''-terphenyl]-3,3'',5,5''-tetracarboxylate

tmtptc

2',3',5',6'-tetramethyl-[1,1':4',1''-terphenyl]-3,3'',5,5''-tetracarboxylate

tpdc

[1,1':4',1''-terphenyl]-3,3''-dicarboxylate

tpom

tetrakis-(4-pyridyloxymethyl)methane

tptc

terphenyl-3,3",5,5"-tetracarboxylate

trza

1,2,4-triazolate

ttca

triphenylene-2,6,10-tricarboxylate

ttei

5,5',5''-(((benzene-1,3,5-triyltris(ethyne-2,1-diyl))tris(benzene-4,1-diyl))tris(ethyne-2,1-diyl))triisophthalate

tz

tetrazolate

tzc

tetrazolate-5-carboxylate

tzdc

4,5-dicarboxylato-1,2,3-triazol-1-ide

tzip

5-(1H-tetrazol-1-yl)isophthalate