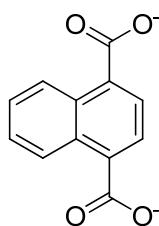


Supporting information

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

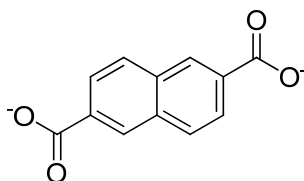
Dan Zhao, Daqiang Yuan and Hong-Cai Zhou\*

Abbreviation, full name and chemical structure of the ligands listed in table 1



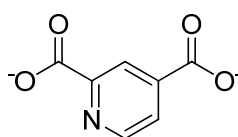
**1,4-ndc**

1,4-naphthalenedicarboxylate



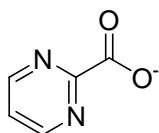
**2,6-ndc**

2,6-naphthalenedicarboxylate



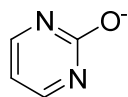
**2,4-pdc**

2,4-pyridinedicarboxylate

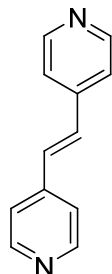


**2-pmc**

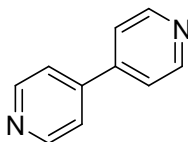
2-pyrimidinecarboxylate



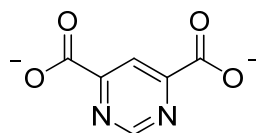
**2-pymo**  
2-pyrimidinolate



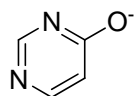
**4,4'-bpe**  
4,4'-trans-bis(4-pyridyl)-ethylene



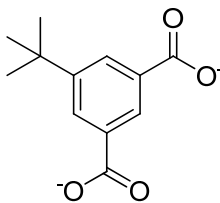
**4,4'-bipy**  
4,4'-bipyridine



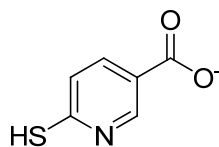
**4,6-pmdc**  
4,6-pyrimidicarboxylate



**4-pymo**  
4-pyrimidinolate

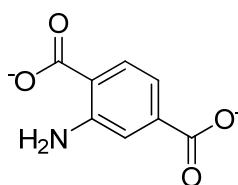


**5-bbdc**  
5-tert-butyl-1,3-benzenedicarboxylate



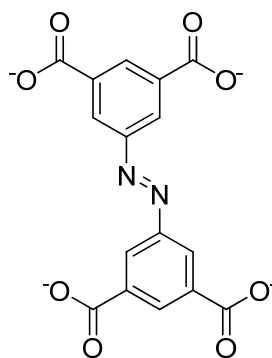
**6-mna**

6-mercapto-3-pyridinecarboxylate



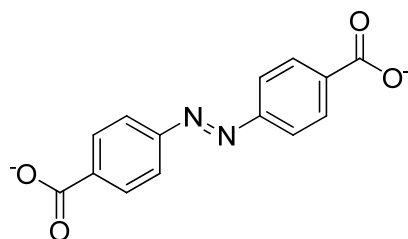
**abdc**

2-aminobenzene-1,4-dicarboxylate



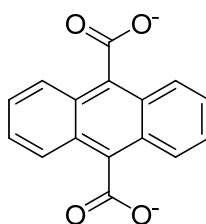
**abtc**

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



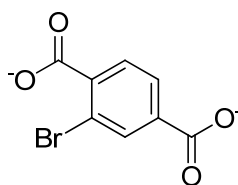
**adc**

4,4'-azobenzenedicarboxylate



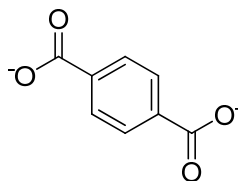
**atdc**

9,10-anthracenedicarboxylate



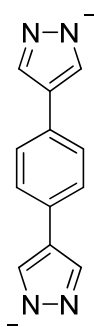
**bbdc**

2-bromobenzene-1,4-dicarboxylate



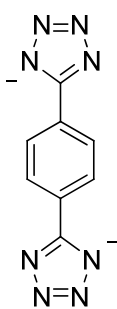
**bdc**

1,4-benzenedicarboxylate



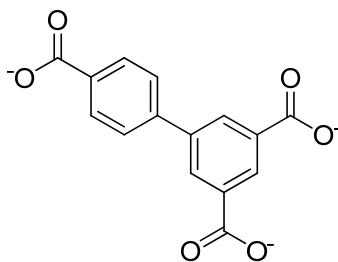
**bdp**

1,4-benzenedi(4'-pyrazolyl)



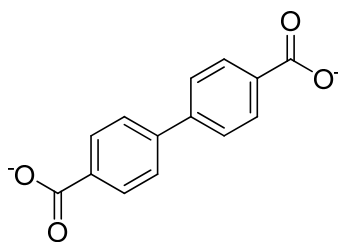
**bdt**

1,4-benzeneditetrazolate



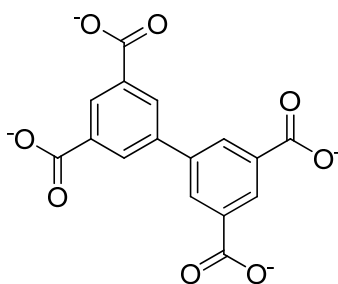
**bhtc**

biphenyl-3,4',5-tricarboxylate



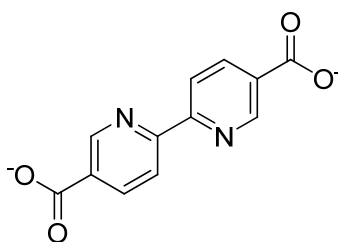
**bpdc**

4,4'-biphenyldicarboxylate



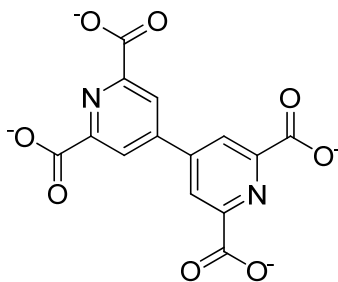
**bptc**

3,3',5,5'-biphenyltetracarboxylate



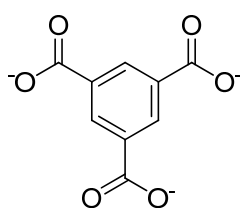
**bpydc**

2,2'-bipyridyl-5,5'-dicarboxylate



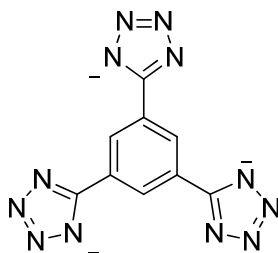
**bpytc**

4,4'-bipyridine-2,6,2',6'-tetracarboxylate



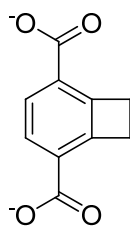
**btc**

1,3,5-benzenetricarboxylate



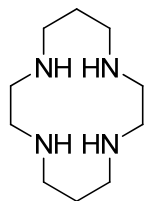
**btt**

1,3,5-benzenetristetrazolate



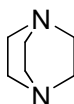
**cbbdc**

1,2-dihydrocyclobutabenzene-3,6-dicarboxylate



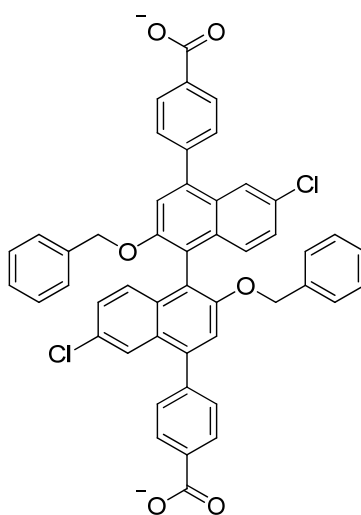
**cyclam**

1,4,8,11-tetraazacyclotetradecane



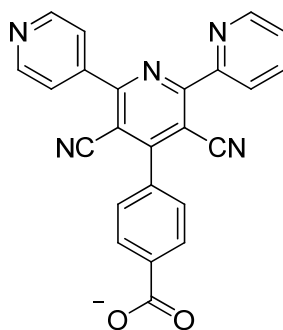
**dabco**

1,4-diazabicyclo[2.2.2]octane



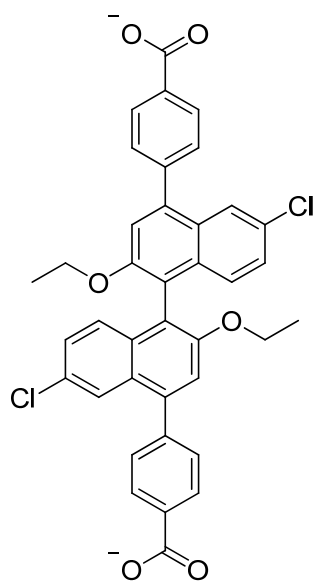
**Dbbd**

6,6'-dichloro-2,2'-dibenzyloxy-1,1'-binaphthyl-4,4'-dibenzoate



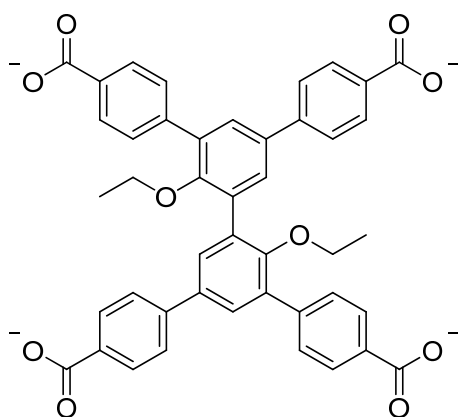
**dccptp**

3,5-dicyano-4-(4-carboxyphenyl)-2,2':6'4''-terpyridine



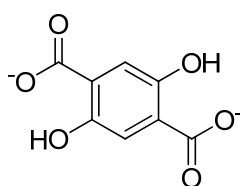
**debd**

6,6'-dichloro-2,2'-diethoxy-1,1'-binaphthyl-4,4'-dibenzoate



**detkb**

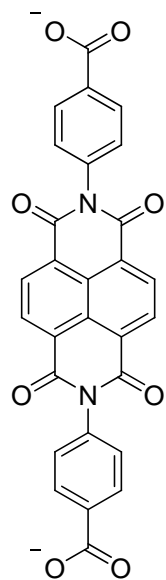
2,2'-diethoxybiphenyl-3,3',5,5'-tetra-kis(benzoate)



**dhbdc**

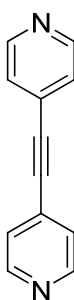
2,5-dihydroxybenzene-1,4-dicarboxylate





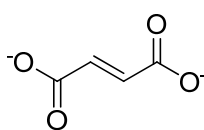
**dipyni**

N,N'-di-(4-pyridyl)-1,4,5,8-naphthalenetetracarboxydiimide



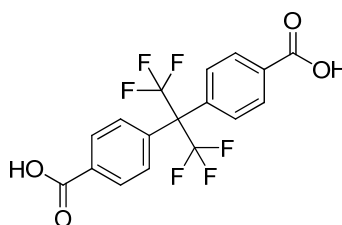
**dpac**

4,4'-dipyridylacetylene



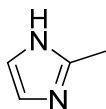
**fma**

fumarate



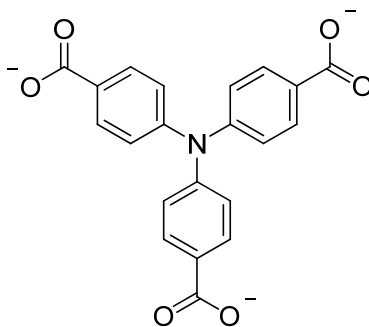
**hfipbb**

4,4'-(hexafluoroisopropylidene)bis(benzoate)



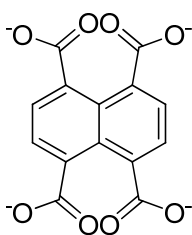
**meim**

2-methylimidazole



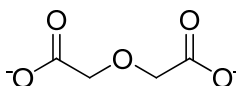
**ntb**

4,4',4''-nitrotrisbenzoic acid



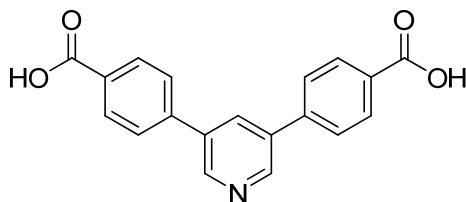
**ntc**

naphthalene-1,4,5,8-tetracarboxylate



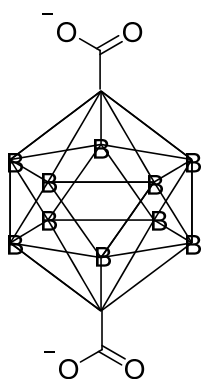
**oxdc**

oxydiacetate



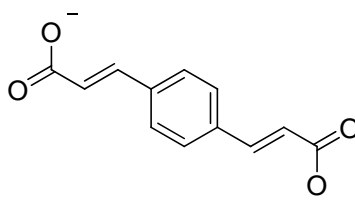
**pbpc**

pyridine-3,5-bis(phenyl-4-carboxylate)



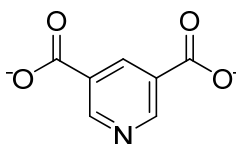
**p-cdc**

1,12-dihydroxy-carbonyl-1,12-dicarba-closo-dodecaborane



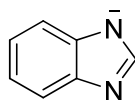
**pda**

p-phenylenediacrylate



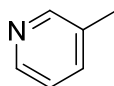
**pdc**

pyridine-3,5-dicarboxylate



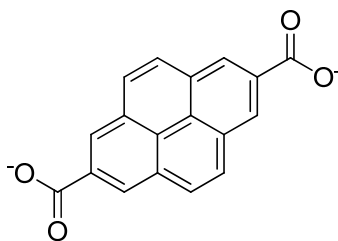
**phim**

benzimidazolone

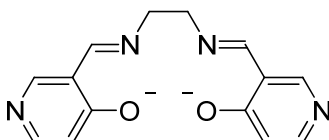


**pic**

3-picoline



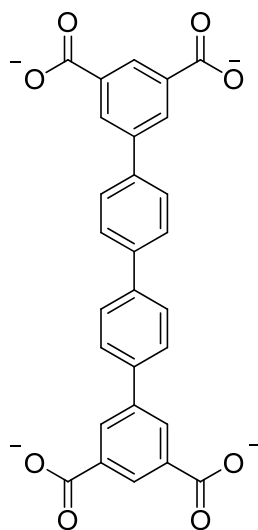
**pydc**  
pyrene-2,7-dicarboxylate



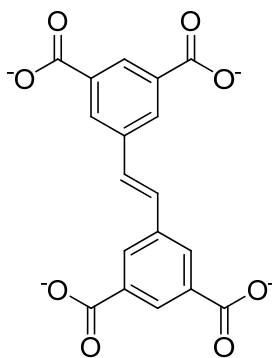
**pyen**  
3,3'-(1E,1'E)-(ethane-1,2-diylbis(azan-1-yl-1-ylidene))bis(methan-1-yl-1-ylidene)dipyridin-4-olate



**pyz**  
pyrazine

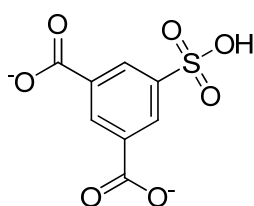


**qptc**  
quaterphenyl-3,3'',5,5''-tetracarboxylate



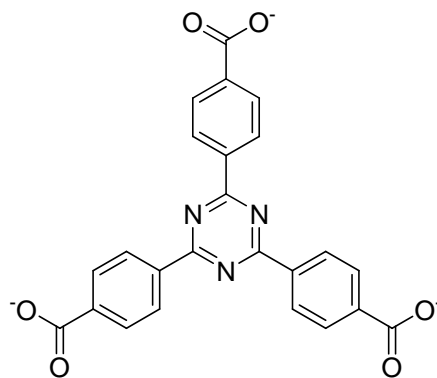
**sbtc**

trans-stilbene-3,3',5,5'-tetracarboxylate



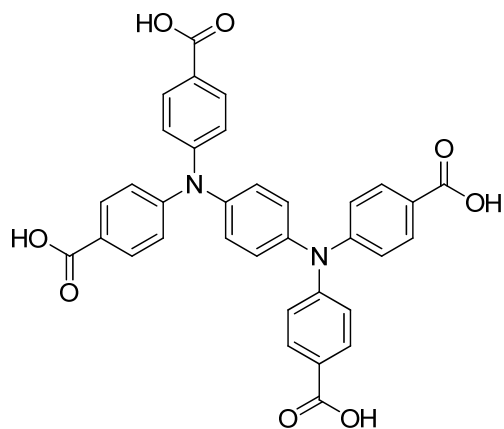
**sip**

5-sulfoisophthalate



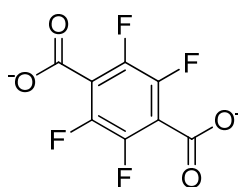
**tatb**

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



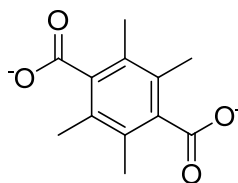
**tcppda**

N,N,N',N'-tetrakis(4-carboxyphenyl)-1,4-phenylenediamine



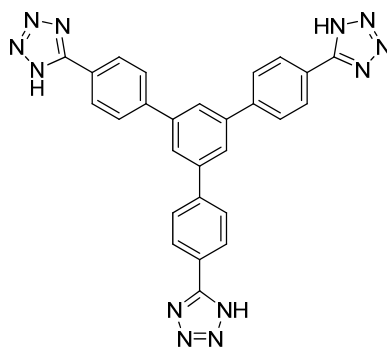
**tfbdc**

tetrafluoroterephthalate



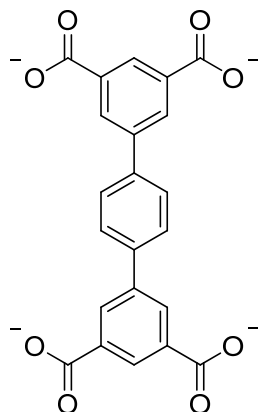
**tmbdc**

tetramethylterephthalate



**tpb-3tz**

1,3,5-tri-p-(tetrazol-5-yl)phenylbenzene



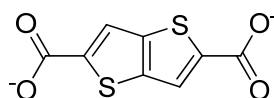
**tptc**

terphenyl-3,3'',5,5''-tetracarboxylate



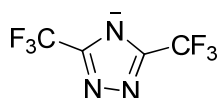
**trz**

1,2,4-triazole



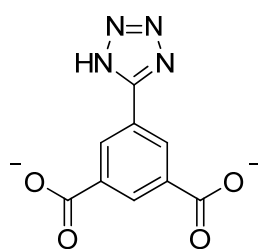
**ttdc**

thieno[3,2-b]thiophene-2,5-dicarboxylate



**tz**

3,5-bis(trifluoromethyl)-1,2,4-triazolate



**tzi**

5-tetrazolylisophthalate