

## CONSTRUCTION OF METAL-TRIAZOLATE FRAMEWORKS BASED UPON BIFUNCTIONAL LIGANDS

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Metal-organic frameworks (MOFs) have been promoted into promising candidates with potential applications in gas storage, separation, heterocatalysis, sensor and other areas, due to their intriguing topologies and structural tunability. Carboxylate- and pyridine-based ligands have been predominantly employed for the construction of MOFs. However, among the reported various MOFs, the frameworks constructed by 1,2,3-triazolate ligands have been rarely developed so far. To combine the merits of 1,2,3-triazolate group with the diverse coordination nature of the carboxylate group, we designed two bifunctional ligands featuring both 1,2,3-triazolate and carboxylate donor groups and constructed two kinds of Metal-Triazolate Frameworks (MTAFs) exhibiting very interesting gas separation and water-stability properties.