

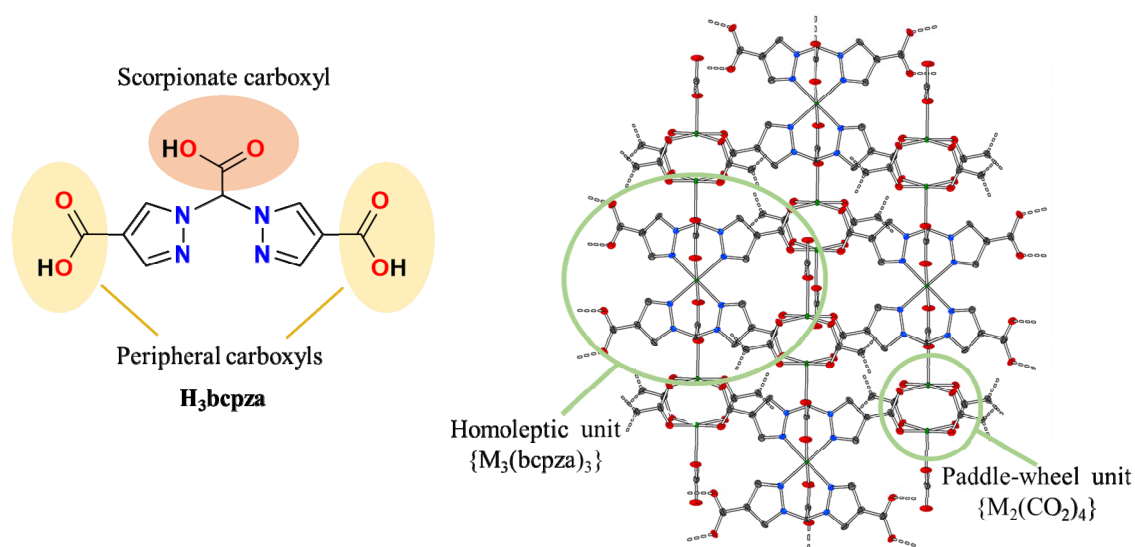
HOMOLEPTIC COMPLEXES OF BIS(4-CARBOXYLPYRAZOL-1-YL)ACETIC ACID: A NEW BUILDING UNIT FOR MOFs

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Recently, we reported on the novel bis(4-carboxypyrazol-1-yl)acetic acid (H_3bcpza) ligand, in which the additional peripheral carboxylic acid functionalities on the pyrazoles improve the water solubility of corresponding complexes.[1] In this regard, several divalent, homoleptic transition metal complexes $[M(L)_2]$ were now synthesized and the respective molecular structures were resolved by single crystal X-ray structure determination. Apparently, in some cases these homoleptic complexes $[M(L)_2]$ are potential building units for new metal-organic frameworks (MOFs) resulting in microporous MOFs of the composition $[M_3(bcpza)_2]_n \times 12 H_2O$. [2] Single crystal analysis showed that highly regular MOF structure is built up from the homoleptic units $\{M(bcpza)_2\}$ and paddle-wheel moieties $\{M_2(CO_2)_4\}$. The stability of the $[M_3(bcpza)_2]_n$ MOF at elevated temperature and humidity was further studied by powder XRD, TGA and BET analyses.



[1] W. Tzegai, M. Reil, N. Burzlaff, *Dalton Trans.* **2022**, 51, 6839.

[2] W. Tzegai, S. Hauk, M. Reil, M. Fischer, M. Hartman, N. Burzlaff, to be submitted.