Supramolecular stores of acetic acid–an alternative for metal-organic frameworks.

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A series of new complexes: $[M(quin\text{-}2\text{-}c)_2(H_2O)_2]\cdot 4CH_3COOH$ (M = Mn^{2+}, Co^{2+} or Ni^{2+}, quin-2-c is quinoline-2-carboxylate ion) have been synthesized and characterized by X-ray single crystal study. The crystals of the complexes reveal very interesting 1D structures comprising acetic acid molecules. The processes of re- and desolvation of acetic acid by the manganese complex in mild conditions have been studied. The de- and resolvated materials were characterized by elemental analysis, IR spectroscopy and XRD study. The results show that binding of acetic acid is reversible and stoichiometric.

Słowa kluczowe

Acetic acid, Supramolecular network, X-ray study, Quinoline-2-carboxylate ligand

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