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Squarato-bridged metal(II) coordination polymers derived from polydentate-N-donors amine derivatives

The coordination chemistry of bezenoids and specifically 3,4-dihydroxycyclobut-3-ene-1,2-dionate, $C_4O_4^{2-}$ (squarate dianion) ligand with different metal(II) ions is addressed. The squarato ligand has been used to construct many polynuclear compounds with different nuclearity and coordination polymers with different dimensionality (1D, 2D, 3D). Assembling divalent and trivalent metal ions through the squarate dianion resulted in a diverse range of bridging modes which will be discussed with emphasize on polydentate-N-donor amines as coligands. The influence of the central metal ion and its electronic nature as well as the role of the coligand(s) in adapting a specific bridged squarato bonding mode will be addressed. The magnetic properties of the structurally characterized bridged-squarato polynuclear and coordination polymeric compounds with Cu(II) and Ni(II) are reported as a function of the structural parameters of the complexes.

Biography

S Massoud received his PhD from Boston University and has Post-doctoral studies at Basel University (Switzerland), University of Alberta (Canada) and visiting Professor at Ohio and Houston Universities. He has published more than 140 papers in peer-reviewed journals and he has been serving as Editorial Board Member of *Magnetochemistry Journal*, *Journals of Advances in Chemistry and Modern Chemistry and Applications (JMCA)* and *Dataset Papers in Materials Science*. His research interest is focused on material sciences, bioinorganic and traditional coordination chemistry.

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