

Molecular and Crystal Structure of the Bis(Acetato)-Bis(4-Methyl-1h-Pyrazole)-Zinc(II)

D.Kočović,^a S.Shova,^b Z. D. Tomić^c and Ž.Jačimović^{d*}

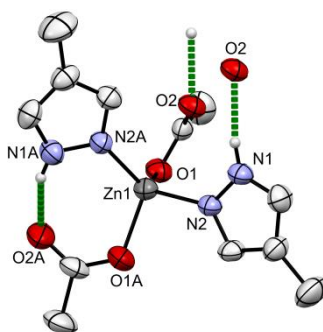
^aInstitute for medicines and medical devices, Laboratory, Podgorica, Montenegro

^bInstitute of Macromolecular Chemistry, Inorganic Polymer Department 'Petru Poni' Romania

^cVINČA Institute of Nuclear Sciences, National Institute of the Republic of Serbia Department of Theoretical Physics and Condensed Matter Physics, University of Belgrade, Serbia

^dFaculty of Metallurgy and Technology, University of Montenegro, Podgorica, Montenegro

*zeljkoj@ucg.ac.me



Ligands with multiple coordination sites are often used in the synthesis of the extended metallo-organic structures. Both pyrazolyl and acetato ligands can have a role of a "bridge" between the metallo-organic fragments. As a part of the study of the coordination capabilities of pyrazole-based ligands we are reporting the molecular and crystal structure of the bis(acetato)-bis(4-methyl-1H-pyrazole)-zinc(ii). Zn is coordinated by two methyl-pyrazole and two acetato ligands, in a distorted tetrahedral environment. Different pattern of non-bonding interactions involving chemically equivalent ligands influence the overall shape of the complex molecule. This is evident in different mutual position of the pyrazolyl and acetato ligands, which is associated with different hydrogen bonds. Two neighboring complex molecules forms hydrogen bonded dimer. There are no significant inter-molecular contacts between dimmers.

Keywords: pyrazole complexes; fomepizole; Zn complex; structure

References

1. Jačimović ŽK, Novaković SB, Bogdanović GA, Giester G, Kosović M, Libowitzky E. First crystal structures of metal complexes with a 4-nitropyrazole-3-carboxylic acid ligand and the third crystal form of the ligand. Acta Crystallographica Section C: Structural Chemistry. 2019 Mar 1;75(3):255-64. <https://doi.org/10.1107/S2053229619001244>