

Structural and chemical details of the title compound will be reported.

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**Keywords:** Mesityllithium, powder data, Rietveld refinement

#### FA4-MS34-P19

#### Crystal structure of Cu complex with pyridine-2,6-dicarboxylic acid and 9-aminoacridine.

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Recently, we have defined a plan to prepare water soluble proton transfer compounds as novel self-assembled systems that can function as suitable ligands in the synthesis of metal complexes [1,2]. In this regard, we prepared new (AacrH)<sub>2</sub>[Cu(pydc)<sub>2</sub>] · 3H<sub>2</sub>O compound in which (pydcH<sub>2</sub>) is pyridine-2,6-dicarboxylic acid and (Aacr) is 9-aminoacridine. Cu<sup>II</sup> compound crystallized in triclinic crystal system with two molecules per unit cell. The anion was six-coordinate complexes with distorted octahedral geometries around the Cu<sup>II</sup> centers. The negative charges of [Cu(pydc)<sub>2</sub>]<sup>2-</sup> species in this compound were neutralized with (AacrH)<sup>+</sup> cations, protonated at the endocyclic nitrogen atom, as counter-ions. Extensive π-π stacking interactions between two aromatic rings of 9-aminoacridine with distances ranging from 3.3498(18) to 3.8718(17) Å, were observed in the title compound. Non-covalent interactions such as hydrogen bonding (consisting O—H...O, N—H...O and C—H...O hydrogen bonds), π-π and C=O...π stacking interactions (with O...π distances ranging from 3.564(2) to 3.834(2) Å) play important roles in stabilizing the structures.

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**Keywords:** crystal structure, Cu(II) complex, π-π stacking interactions

#### FA4-MS34-P20

#### Synthesis, molecular structure, spectroscopic studies of cyanide-bridged Mn(III)Ni(II) Complex.

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The cyanide bridged complex [Mn<sub>2</sub>(L1)<sub>2</sub>][Ni(CN)<sub>4</sub>]<sub>3</sub> (C<sub>2</sub>H<sub>6</sub>O) 3H<sub>2</sub>O (**1**) (L1=(3,5-di tert-butyl-2 hydroxybenzaldehyde-1,2-diaminopropane) has been prepared and characterized by spectroscopic and single crystal X-ray analysis. Single crystal X-ray structure analyses have shown that the crystal structures of **1** is ionic and are built up of [Mn(L1)]<sup>2+</sup> cations, [Ni(CN)<sub>4</sub>]<sup>2-</sup> anions, water and ethanol molecule. In the complex, two quadridentate ligands are bonded to the Mn(III) ion in a distorted octahedral arrangement and the Ni(CN)<sub>4</sub><sup>2-</sup> anion remains outside the coordination sphere.

**Keywords:** Cyano-bridged complex, X-ray diffraction, Schiff Base Ligand

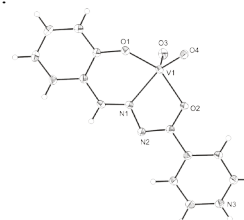
#### FA4-MS34-P21

#### Synthesis and crystal structure of a vanadium(V) complex with salicylaldehyde

isonicotinoylhydrazone. Liudmila Gusina<sup>a</sup>, Ion Bulhac<sup>a</sup>, Diana Dragancea<sup>a</sup>, Yurii Simonov<sup>b</sup>, Sergiu Shova<sup>b</sup>, <sup>a</sup>Institute of Chemistry, Academy of Sciences of Moldova, Chisinau, Moldova, <sup>b</sup>Institute of Applied Physics, Academy of Sciences of Moldova, Chisinau, Moldova

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The catalytic properties of vanadium compounds and their effects in biological systems or as therapeutic agents have led to an increasing interest in the coordination chemistry of this element. In this paper we report the synthesis and single-crystal X-ray diffraction study of mononuclear vanadium(V) complex [VO<sub>2</sub>(HL)] with salicylaldehyde isonicotinoylhydrazone H<sub>2</sub>L. The crystal is monoclinic, space group P2<sub>1</sub>/n, *a* = 7.14930(10), *b* = 14.5150(2), *c* = 11.9411(2) Å, β = 94.410(2)°, *V* = 1235.48 Å<sup>3</sup>, *Z* = 4 for C<sub>13</sub>H<sub>10</sub>VN<sub>3</sub>O<sub>4</sub>. The vanadium(V) atom adopts a square-pyramidal geometry coordinated by the tridentate Schiff base ligand stabilized in E form and two oxygen atoms in *cis* positions. The N1–N2 = 1.395(3), N2–C8 = 1.308(3) and C8–O2 = 1.299(3) (Å) bond distances put in evidence the enolate form of the amide functionality. X-ray diffraction study has demonstrated the protonation of the pyridine ring, which was also observed earlier in Fe<sup>III</sup> and V<sup>V</sup> complexes with a related ligand [1,2]. The crystal structure is stabilized by a strong intermolecular N–H...O H-bonds, involving the protonated pyridinic nitrogen and the equatorial oxo ligand (N3–O4', 2.61(2) Å; ∠N3–H...O4' = 164.5°).



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