polymeric chain through [010]. In addition, the silver(I) ions in 3 are four- and five-coordinated in individual polymeric chains. In 4, the inter-molecular N-H···O hydrogen bonds form one-dimensional polymeric chains through the a axis. These linear chains are inter-connected to each other by N-H···O hydrogen bonds. The molecular packing is also supported by π-π ring interactions, leading to a sheet structure parallel to bc plane. Complex 5 is a coordination polymer, in which the monomeric [Ag(dmpen)(sac)] units are linked by Ag···Ag interactions and the dmpen ligand acts as a bridge between the silver(I) ions, forming a two-dimensional network parallel to the plane (100). For all of the compounds, antimicrobial activity was studied against selected wild type and clinical microorganisms in vitro by using Minimum inhibitory concentration (MIC) and the disc diffusion method. MIC values of complexes 1-5 were determined in range 13.5-55 µg/ml. These MIC values were approximately the same as those of standard medicinal antibiotics. Therefore, these complexes could be a new candidate for the treatment of microbial diseases.

**Keywords:** saccharinate complexes; silver(I) complexes; antimicrobial properties

**FA4-MS05-P07**

D**iaquabis(3-Hydroxybenzoato-κO)Bis(Nicotinamide-κN)Zinc(II).** Onur Şahin¹, Orhan Büyükgüngör², Dursun Ali Köse³, Hacali Necefoğlu⁴. ¹Department of Physics, Ondokuz Mayıs University, 55139, Samsun, Turkey. ²Department of Chemistry, Hacettepe University, 06800, Ankara, Turkey. ³Department of Chemistry, Kafkas University, 06100, Kars, Turkey.

The title compound, [Zn(C₇H₅O₃)₂(C₆H₅N₂O₂)₂(H₂O)]₂, is a two-dimensional hydrogen-bonded supramolecular complex. The Zn²⁺ ion resides on the centre of symmetry and is in an octahedral coordination environment comprising two pyridyl N atoms, two carboxylate O atoms and two O atoms from water molecules. Intermolecular N-H···O hydrogen bonds produce R₁(6), R₂(3), R₃(8), R₄(16), R₅(20), R₆(22) and R₇(30) rings which lead to a one-dimensional polymeric chains. An extensive two-dimensional network of N-H···O, O-H···O, C-H···O hydrogen bonds, and C-H···π interactions are responsible for crystal stabilization.

**Keywords:** zinc complex; crystal structure analysis; hydrogen bond

**FA4-MS05-P08**

Bis[μ-(acesulfamato-N,O,O)(acesulfamato-N,O)bis(2-methylpyridine)cadmium(II)]. Zarife Sibel Şahin, Hasan İçbudak, Şamil Işık. Department of Physics, Ondokuz Mayıs University, 55139, Samsun, Turkey. Department of Chemistry, Ondokuz Mayıs University, 55139, Samsun, Turkey.

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The title compound, (C₃₀H₄₄Cd₂N₂O₆S₂), is a three-dimensional hydrogen-bonded supramolecular complex, which crystallizes in the monoclinic space group C2/c with unit-cell parameters a=14.9475(12)Å, b=16.5004(11)Å, c=21.4067(15)Å and Z = 4. Within the dinuclear complex, two Cd(II) ions are bridged by two carboxylate O atoms. Each Cd(II) ion is coordinated by two N and three O atoms of the acesulfamato ligands and two N atoms of the 2-methylpyridine ligands, resulting in a distorted pentagonal bipyramidal coordination. Intermolecular C-H···O hydrogen bonds produce R₁(8) and R₂(20) rings which lead to a two-dimensional polymeric chains. An extensive three-dimensional network of C-H···O hydrogen bonds, and π···π interactions are responsible for crystal stabilization.

**Keywords:** cadmium complex; crystal structure analysis; hydrogen bond

**FA4-MS05-P09**

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The molecule of the title compound, C₈H₈ClNO, adopts the enol-imine tautomeric form, with an intramolecular O-H···N hydrogen bond. In the molecule, the two benzene rings are twisted with respect to each other by 30.6° (2). The crystal structure is stabilized by intermolecular C-H···π interactions.

**Figure 1.** A perspective view of the molecular packing of compound. Dashed lines indicate hydrogen bonds and C-H···π interactions.