

Synthesis and Structures of Silver(I) Adducts with 4-Amino-4*H*-1,2,4-triazole

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Reactions of silver(I) salts with 4-amino-4*H*-1,2,4-triazole (4-NH₂-tz) in a 1 : 1 molar ratio yield four new silver adducts, namely [Ag(4-NH₂-tz)](CF₃SO₃) (**1**), [Ag(4-NH₂-tz)_{1.75}](ClO₄) (**2**), [Ag(4-NH₂-tz)_{1.75}](BF₄) (**3**) and [Ag(4-NH₂-tz)_{1.75}](NO₃) (**4**). X-Ray analysis shows that **1** exhibits a 3D cationic [Ag(4-NH₂-tz)]⁺ metal-organic framework of *srs* topology; **2**, **3** and **4** are isostructural and display an infinite chain structure containing an Ag₄tz₆ cluster.

Key words: Silver, 4-Amino-4*H*-1,2,4-triazole, Adducts, Synthesis, Structure