

Pursuing new facts in the coordination capabilities of (1-diaminomethylene)thiourea (HATU): products of the interaction with transition metal halides- structural investigations.

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Streszczenie

This work is part of our studies on the reactivity and crystal engineering of (1-diaminomethyl-ene)thiourea (HATU). Structure and other properties of the selected products of the interaction of HATU with transition metal halides, also in the presence of 3% hydrogen peroxide as an oxidizing agent, have been investigated ((1) di- $\mu$ -((1-diaminomethylene)thiuron-1-ium)- $\eta^4$ S:S-bis[chlorido- $\mu$ ((1-diaminomethylene)-thiuron-1-ium- $\eta^5$ )copper(I)] tetrachloride [(C<sub>2</sub>H<sub>7</sub>N<sub>4</sub>S)<sub>4</sub>Cu<sub>2</sub>Cl<sub>2</sub>]Cl<sub>4</sub>, (2)catena(bis(3,5-diamino-1,2,4-thiadiazol-2-ium)-bis( $\mu$ -chlorido)-chloridocuprate(II)) [(C<sub>2</sub>H<sub>6</sub>N<sub>4</sub>S)<sub>2</sub>(Cu<sub>2</sub>Cl<sub>6</sub>)]<sub>1</sub>, (3)3,5-diamino-1,2,4-thiadiazol-2-ium pentachloridoferrate(III) (C<sub>2</sub>H<sub>6</sub>N<sub>4</sub>S)<sub>2</sub>[FeCl<sub>5</sub>], (4) 3,5-diamino-1,2,4-thiadiazol-2-ium chloride) (C<sub>2</sub>H<sub>6</sub>N<sub>4</sub>S)Cl, (5) 3,5-diamino-1,2,4-thiadiazol-2-ium tetrachloridozincate(II)(C<sub>2</sub>H<sub>7</sub>N<sub>4</sub>S)<sub>2</sub>[ZnCl<sub>4</sub>]. For (2) also magnetic properties have been characterized. Compound (3) contains unusual pentachloridoferrate(III) anions.

Słowa kluczowe

1-Diaminomethylene)thiourea (HATU)Copper(I), copper(II), iron(III) and zinc(II) complexes, X-ray diffraction

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