

## Novel bimetallic thiocyanate-bridged Cu(II)-Hg(II) compounds—synthesis, X-ray studies and magnetic properties.

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### Streszczenie

Seven novel heterobimetallic Cu/Hg polymers based on thiocyanate bridges have been synthesised and characterised by means of IR, EPR, magnetic measurements and single crystal X-Ray. Three of them,  $[\text{Cu}(\text{pzH})_4\text{Hg}(\text{SCN})_4]_n$  (1)  $[\text{Cu}(\text{indH})_4\text{Hg}(\text{SCN})_4]_n$  (2) and  $[\text{Cu}(\text{ampy})_2\text{Hg}(\text{SCN})_4]_n$  (3), have one-dimensional coordination structure. Two compounds  $[\text{Cu}(\text{pzH})_2\text{Hg}(\text{SCN})_4]_n$  (4) and  $[\text{Cu}(\text{abzimH})\text{Hg}(\text{SCN})_4]_n$  (5) form two-dimensional nets, whereas the complexes  $[\text{Cu}(\text{pyCN})_2\text{Hg}(\text{SCN})_4]_n$  (6) and  $[\text{Cu}(\text{pyCH}(\text{OH})(\text{OMe}))_2\text{Hg}(\text{SCN})_4]_n$  (7) are three-dimensional coordination polymers. The chains of 1 are connected by the intermolecular N–H...N hydrogen bonds to the three dimensional net. In 2 the N–H...S hydrogen bonds link the polymeric chains to the two dimensional layer extending along crystallographic (0 0 1) plane. The polymeric chains of compound 3 are joined by the intermolecular N–H...N and N–H...S hydrogen bonds to the three dimensional net. The polymeric layers of 4 are connected by the intermolecular N–H...N hydrogen bonds to the three dimensional net.

### Słowa kluczowe

Heterobimetallic coordination polymer, copper, mercury,  
Thiocyanate bridge, X-ray, magnetic measurements

### Adres publiczny

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