

Rhenium(I)–copper(I) carbonyl cyanide clusters.

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Streszczenie

Tetranuclear cyanide rhenium(I)–copper(I) coordination compounds were synthesized in the course of simple one-pot reactions in mild conditions. A new class of mixed-metal compounds based on rhenium(I) clusters that are comprised of the pseudo-rhombic-shaped $\{\text{Re}_2\text{Cu}_2(\mu\text{-CN})_4\}$ unit were found. Two kinds of geometries adopted by the self-assembled cyclic clusters are observed, both of which can be described as approximately block-like overall geometries with different coordination modes. The unique polynuclear structure $\{\text{ReCu}(\text{CH}_3\text{CN})(\mu\text{-CN})_2(\text{CO})_2(\text{PPh}_3)_2\}_n$ can be formed under the reaction conditions. Presented compounds were characterised by single crystal X-ray diffraction and spectroscopic studies.

Słowa kluczowe

Re-Cu clusters, Tetranuclear metallacycles, Cyanide macrocyclic cluster, Rhenium carbonyl compounds

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