

Reaction of  $[(\text{Co})_4\text{Mo}(\mu\text{-Cl})_3\text{Mo}(\text{SnCl}_3)(\text{CO})_3]$  with  $\text{PhC}\equiv\text{CPh}$ . X-ray crystal structure of  $[\text{Mo}_3(\mu_3\text{-Cl})(\mu_2\text{-Cl})(\mu_2\text{-OH})_2(\text{O})(\eta^2\text{-PhC}\equiv\text{CPh})_5]$ .

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Streszczenie

Reaction of  $[(\text{CO})_4\text{Mo}(\mu\text{-Cl})_3\text{Mo}(\text{SnCl}_3)(\text{CO})_3]$  **1** with  $\text{PhC}\equiv\text{CPh}$  in inert atmosphere affords the mixture of alkyne halocarbonyl compounds, which after exposure to moist air rearranges to give the complex  $[\text{Mo}_3(\mu_3\text{-O})(\mu_3\text{-Cl})(\mu_2\text{-Cl})(\mu_2\text{-OH})_2(\text{O})(\eta^2\text{-PhC}\equiv\text{CPh})_5]$  **2**. The structure of complex **2** was established by X-ray crystallography. The molecule consists of a nearly isosceles triangle of Mo atoms joined by triply bridging oxygen and chlorine atoms. Compound **2** is noteworthy since it is the first trinuclear complex of molybdenum in which a mixed-valence  $\text{Mo}_2^{\text{II}}\text{Mo}^{\text{IV}}$  core has been established.

Słowa kluczowe

Molybdenum, Crystal structure, Trinuclear compound, Mixed-valence, Alkyne complex

Adres publiczny

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