

Crystal structure of μ_3 -oxo-esakis(μ_2 -acetate)triaquatrichromium(III) 2,6-dihydroxybenzoate dihydrate.

Autorzy

Tadeusz Głowiak

Henryk Kozłowski

L. Strinna-Erre

Giovanni Micera

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Streszczenie

The compound $[\text{Cr}_3(\mu_2\text{-CH}_3\text{COO})_6(\mu_3\text{-O})(\text{H}_2\text{O})_3]\text{DHB}\cdot 2\text{H}_2\text{O}$ (DHB = 2,6-dihydroxybenzoate(-1)), as characterized by single crystal X-ray analysis and spectroscopy, is described. The compound crystallizes in the monoclinic space group *Cc* with $a = 14.122(3)$, $b = 15.137(4)$, $c = 14.952(3)\text{\AA}$, $\beta = 99.70(3)^\circ$, $Z = 4$. The structure of the complex consists of the trimetallic cage common to 'basic' acetates of Cr(III), Fe(III) and Rh(III), where three metal ions lie at the corners of a nearly equilateral triangle of side $\sim 3.3\text{\AA}$, the center being occupied by a triply-bridging oxygen. The chromium coordination is compared with those found in related complexes. The DHB anion is anchored to the trichromium moiety through bonding between the carboxylate group and a metal-bound water molecule.

Słowa kluczowe

Chromium complexes, Carboxylate complexes, Trinuclear complexes, molecule, 6-Dihydroxybenzoic acid, Crystal structures

Adres publiczny

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