



Structure of binuclear Rh(II) carboxylato complexes with 2,2'-bipyridine and an unprecedented rhodium wire with Rh₄⁵⁺ core.

Autorzy

Florian P. Pruchnik

Anna Jutarska

Zbigniew Ciunik

M. Pruchnik

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Structures of rhodium(II) binuclear complexes

[Rh₂(OOCCH₃)₂(bpy)₂(H₂O){(CH₃)₂CHOH}][B(C₆H₅)₄]₂ · H₂O (**1**), [Rh₂Cl₂(OOCCH₃)₂(bpy)₂] · 2H₂O (**2**),

[Rh₂Br₂(OOCCH₃)₂(bpy)₂] · 3H₂O (**3**), and

[Rh₂I₂(OOCCH₃)₂(bpy)₂] (**4**), as well as an unprecedented wire with infinite Rh–Rh chain, {[Rh₄(μ-OOCH)₄(bpy)₄]

(BF₄)_n · 0.5nC₄H₈O₂ (**5**), have been determined and discussed. Mass spectra of complexes

[Rh₂(OOCMe)₂(bpy)₂(H₂O)₂](MeCOO)₂ and

[Rh₂(OOCMe)₂(phen)₂(H₂O)₂](MeCOO)₂ have showed stability of polynuclear cations with rhodium in oxidation states in the

range +1.25 to +1.75. Structures of rhodium(II) binuclear complexes [Rh₂X₂(OOCCH₃)₂(bpy)₂] and an unprecedented

wire with infinite Rh–Rh chain {[Rh₄(μ-OOCH)₄(bpy)₄](BF₄)_n · 0.5nC₄H₈O₂ with Rh₄⁵⁺ core have been determined and discussed. Mass spectra of complexes

[Rh₂(OOCMe)₂(bpy)₂(H₂O)₂](MeCOO)₂ and

[Rh₂(OOCMe)₂(phen)₂(H₂O)₂](MeCOO)₂ have showed stability of polynuclear cations with rhodium in oxidation states in the

range +1.25 to +1.75.

Słowa kluczowe

Rhodium wire, Binuclear rhodium complex, molecule, 2'-Bipyridine complexes

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