

Polymeric Zn(II) and Cu(II) complexes with exobidentate bridging L-tyrosine : synthesis, structural and spectroscopic properties.

Autorzy

Agnieszka Wojciechowska

M. Daszkiewicz

Alina Bieńko

Rok wydania

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Streszczenie

A novel zinc(II) polymeric complex of the formula $\{[\text{Zn}(\text{tyr})_2(\text{H}_2\text{O})]\text{H}_2\text{O}\}_n$ (**1**) containing L-tyrosine (tyr) was prepared in the crystalline form and characterized by X-ray diffraction, NIR–Vis–UV electronic and IR–FIR vibrational spectroscopy methods. Additionally, for the $[\text{Cu}(\text{tyr})_2]_n$ (**2**) polymer, the vibrational, electronic, EPR spectroscopic and magnetic properties were studied. L-tyrosine in coordination polymers acts as a N,O-bidentate ligand and presents exobidentate bridging with a μ -carboxyl group. The μ -carboxyl exobidentate bridging coordination mode leads to a one-dimensional chain structure. The $\text{ZnN}_2\text{O}_3\text{O}'$ chromophore has an elongated pseudo-octahedral geometry (**1**), whereas the $\text{CuN}_2\text{O}_2\text{O}'$ (**2**) chromophore presents a distorted square-pyramidal environment with $\tau = 0.19$ around the Cu^{2+} ion.

Słowa kluczowe

L-Tyrosine, Zinc(II) and copper(II) complexes, X-ray diffraction, IR spectroscopy, UV–Vis–NIR spectroscopy

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