

Ligand chirality effect on the structure of the lanthanide complexes with α -alaninehydroxamic acids and its spectroscopic consequences.

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Streszczenie

Two series of lanthanide compounds with DL-(I) and L- α -alaninehydroxamic acid (II); $[\text{Ln}(\text{DL-}\alpha\text{-C}_3\text{H}_8\text{N}_2\text{O}_2)(\text{H}_2\text{O})_6]_2(\text{ClO}_4)_6$ (I), $[\text{Ln}(\text{L-}\alpha\text{-C}_3\text{H}_9\text{N}_2\text{O}_2)(\text{H}_2\text{O})_6]_2(\text{ClO}_4)_8$ (II), were synthesised and studied by single crystal X-ray diffraction. Well-resolved absorption, optical emission and excitation spectra down to 4 K are reported. Radiative and nonradiative processes are analysed and compared to structural data. Particular attention is paid to the effect of ligand chirality and to explain how the dimer nature of active species affects its spectroscopic properties.

Słowa kluczowe

Lanthanides, Aminohydroxamic acid, Absorption, Emission, Excitation

Adres publiczny

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