

Synthesis, crystal structure, luminescent and magnetic properties of europium(III) and terbium(III) complexes with a bidentate benzoate and a tripod N₇ ligand containing three imidazole, [Ln^{III}(H₃L)benzoate](ClO₄)₂·H₂O·2MeOH (Ln^{III}=Eu^{III} and Tb^{III}).

Autorzy

Seira Shintoyo

Takeshi Fujinami

Naohide Matsumoto

Masanobu Tsuchimoto

Marek Weselski

Alina Bieńko

Jerzy Mroziński

Rok wydania

2015

Czasopismo

Polyhedron

Numer woluminu

91

Strony

28-34

DOI

10.1016/j.poly.2015.02.020

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Eu^{III} and Tb^{III} complexes with a benzoate and a tripod N₇ ligand, [Ln^{III}(H₃L)benzoate](ClO₄)₂·H₂O·2MeOH (Ln^{III} = Eu^{III} and Tb^{III}; H₃L = tris[2-(((imidazol-4-yl)methylidene)amino)ethyl]amine), were synthesized and crystallized into an isomorphous structure. Each Ln^{III} ion is coordinated by one tripod ligand and one benzoate, resulting in a nona-coordinated capped square antiprism geometry. The solid-state emission spectra displayed sharp bands of the f–f transitions. Tb^{III} complex exhibits a magnetic anisotropy and the ac susceptibility measurements exhibited an out-of-phase signal under 1000 G bias field, indicative slow relaxation of magnetization.

Słowa kluczowe

Europium (III) complexes, Terbium(III) complex, Tripod ligand, luminescence, Magnetism

Adres publiczny

<http://dx.doi.org/10.1016/j.poly.2015.02.020>

Strona internetowa wydawcy

<http://www.elsevier.com>

Plik został wygenerowany dnia 2026-04-27 12:50:15

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/P5nWvkt>.