

A europium(II) complex with bis-pyridino-18-crown-6.

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Streszczenie

A new Eu(II) complex, bis(perchlorato)(bis-pyridino-18-crown)europium(II), has been obtained in the crystalline form by electrolytic reduction. The metal ion is 10-coordinated and its surrounding consists of four macrocycle O atoms, two N ones and four O atoms from perchlorate anions. The compound shows a very broad absorption band, starting gently from 600 nm towards the UV region, and two weak luminescence bands with maxima at 430 and 500 nm. The performed density functional theory (DFT) calculations have shown that the absorption results from mixed f–d, f–s and charge transfer transitions. The possible mechanism of luminescence is also discussed.

Słowa kluczowe

Divalent europium, Bis-pyridine-18-crown-6, Structure, Spectroscopy, Density functional calculations

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