



Europium(II) bis[tetrafluoro-2-(pentafluoroethoxy)ethanesulfonate] – structure and spectroscopic properties of a new near-UV emitter

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A new Eu(II) complex, $[\text{Eu}(\text{CF}_3\text{CF}_2\text{OCF}_2\text{CF}_2\text{SO}_3)_2(\text{H}_2\text{O})]_\infty$, was obtained by electrochemical reduction. It is polymeric and the Eu^{2+} cation is 8-coordinate (6 oxygen atoms from sulfonate groups and two water molecules, which form bridges between adjacent europium cations). The compound shows bright UV luminescence with maximum at 377.8 nm ($26\,470\text{ cm}^{-1}$) at 77 K. In the excitation spectrum clear Fano resonances, attributed to the $^6\text{I}_J$, $^6\text{D}_J$ and $^6\text{G}_J$ multiplets, were observed.

Adres publiczny

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