

Near-UV-excitable, green-emitting Tb³⁺-based complexes

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Streszczenie

Light emitting diodes (LEDs) have become a very important source for ultraviolet light (UV) in various technical areas, the near UV range (NUV in the following) being particularly attractive due to the availability of high power emitters at very competitive cost for the spectral range between 350 and 400nm. While numerous Eu³⁺ complexes are known now that can efficiently be exploited in this excitation range, corresponding green Tb³⁺ emitter complexes are hard to find. Tb³⁺ salts of fenamic acid and derivatives thereof are shown to be interesting candidates for applications using NUV excitation: on additional co-coordination with e.g. 5,5'-dimethyl-2,2'-bipyridine, excitation maxima at 380nm, at the same time maintaining high efficiencies, can be accomplished. Such coordination compounds hold the promise of being useful as versatile marker molecules in a variety of 'soft' chemical environments.

Słowa kluczowe

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