

Concentration dependence of luminescence properties in praseodymium and praseodymium/ytterbium-doped lutetium double phosphates.

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Rok wydania

2008

Czasopismo

Optical Materials

Numer woluminu

30

Strony

1667-1671

DOI

10.1016/j.optmat.2007.11.004

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

In this paper we present a comparative optical study of praseodymium and praseodymium/ytterbium-doped lutetium double phosphates in the wide spectral range (VUV–IR) and for various concentrations of the activators. The absorption and emission spectra of $\text{Na}_3\text{Lu}(\text{PO}_4)_2:\text{Pr}^{3+}$ and $\text{Na}_3\text{Lu}(\text{PO}_4)_2:\text{Pr}^{3+}, \text{Yb}^{3+}$ were measured at room and low temperatures. It was shown that spectroscopic properties of investigated systems strongly depend on the concentration ratio of the Pr^{3+} and Yb^{3+} ions.

Słowa kluczowe

Praseodymium double phosphates, Praseodymium/ytterbium double phosphates, f–d emission

Adres publiczny

<http://dx.doi.org/10.1016/j.optmat.2007.11.004>

Strona internetowa wydawcy

<http://www.elsevier.com>