

Near infrared and visible luminescence of U^{3+} - doped $PbCl_2$ single crystals.

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Streszczenie

Good optical quality U^{3+} -doped $PbCl_2$ single crystals of the composition $Pb_{0.99}U_{0.01}Cl_2$ have been obtained by the Bridgman-Stockbarger method. Luminescence spectra of the crystals were recorded in a wide spectral range at room and liquid nitrogen temperatures, and are discussed. Strong infrared emission was observed under 514 nm laser pumping to the $5f(2)6d(1)$ bands. The lifetimes of the emitting levels in the visible and near infrared region are given.

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