

Modeling of gamma-pulse propagation in the "optical" thick medium with inverted population of the nuclear levels of ^{178}Hf isotope

Popov E., Samartsev V., Yanvarev E., Kosulin V., Osikov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The nuclear superfluorescence in the "optical" medium with ^{178}Hf in propagation channel has been modeled. The general equations system describing the nuclear superfluorescence in the "optical" medium has obtained. The numerical simulation in the propagation channel in the "optical" thick medium with Hf has been made.

<http://dx.doi.org/10.1117/12.562202>

Keywords

γ -pulse, $^{178\text{m2}}\text{Hf}$ isomer, K-mixing, Superfluorescence