

## Optical properties of Pr(III) in $\text{KLa}_{1-x}\text{Pr}_x(\text{MO}_4)_2$ crystals (M= Mo, W; $0 < x < 1$ ).

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### Streszczenie

Single crystals of praseodymium and neodymium tungstates and molybdates of the formula  $\text{KLn}(\text{MO}_4)_2$  are the subject of extensive spectroscopic investigations [1, 2, 3]. The main aim of these investigations concerns understanding electron relaxation processes and the explanation of intra- and interion interaction. Numerous studies have been made on the interaction of 4f-electrons and the lattice, important for both fundamental and application reasons. The luminescence of lanthanide ions has found broad application in X-ray imaging, computer-aided tomography, fluorescence immunoassay, and laser materials. For the latter application, praseodymium compounds seem to be very promising materials [4]. Blasse and co-workers reported data on Ce, Pr, Gd tungstates and molybdates as well as on other oxycompounds (see references cited therein). Absorption, emission, and energy migration as well as IR and Raman properties of  $\text{Nd}^{3+}$ ,  $\text{Dy}^{3+}$ , and  $\text{Eu}^{3+}$  ions in double molybdates and tungstates have been investigated extensively in our laboratories [1, 3].

### Adres publiczny

<https://doi.org/10.1007/BF02606646>

### Strona internetowa wydawcy

<http://link.springer.com>