

## **Studies of magnetization of lithium-rare earth tetrafluoride single crystals**

Romanova I., Klochkov A., Korableva S., Kuzmin V., Malkin B., Mukhamedshin I., Suzuki H., Tagirov M.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### **Abstract**

Temperature and magnetic field dependences of the magnetization of LiHoF<sub>4</sub> and LiDyF<sub>4</sub> single crystals were measured with a dc-SQUID magnetometer and by the inductance method with the magnetic field applied along and perpendicular to the c-axis. The results of measurements are compared with the results of simulations.

---

### **Keywords**

Crystal field parameters, Magnetization, Magnetoelastic interactions, Magnetostriction