

## Short abstract

### **Time decay of stable absorption of gamma irradiated lithium niobate crystal doped by cuprum ions**

The transient and stable color centers in pure and doped lithium niobate crystals (LNO) have been investigated in several works, for example in [1]. The stable color centers are centers which have lifetime higher than 1s. Unfortunately, the lifetime of color centers were studied in literature only for transient color centers, for example in [2]. In this work the lifetime of stable additional absorption induced by gamma irradiation in Cu doped of LNO crystal will be determined from data obtained during 10 years.

1. A.Matkovskii, P.Potera, D.Sugak, Ya.Zhydachevskii, V.Pankratov, D.Millers, L.Grigorjeva, I.Pracka, T.Lukasiewicz „Transient and stable color centers in pure and Cu-doped LiNbO<sub>3</sub>” Cryst. Res. Technol 38(3-5), (2003) 388-393.
2. V.Pankratov, D.Millers, L.Grigorjeva, A.O.Matkovskii, P.Potera, I.Pracka, T.Luksiewicz „The role of the Fe and Cu doping to electron-hole trapping and relaxation processes in congruent LiNbO<sub>3</sub>” Optical Materials 22(3), (2003) 257-262.

*Scientific topic: Defects, impurities and transport phenomena in oxide crystals;*