ACCUMULATION OF COLOR CENTERS IN LIF CRYSTALS DOPED WITH METAL OXIDES

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The processes of accumulation of color centers (F^- , F_2^- , F_3^- , F_2^+ centers and F^- Vk-pairs) in «pure» LiF crystals and those doped with metal oxides (TiO₂, WO₃ and others) have been studied after irradiation by nanosecond electron pulse series with an average energy of 250 keV in the temperature range of 20–300 K. The effect of impurities on accumulation was analyzed with respect to the capture of electron-hole pairs and Frenkel defects generated by electron pulse by pre-irradiation and radiation defects.

Keywords: lithium fluoride, color centers, accumulation, metal oxides.