

Formation of F2- Colour Centers in LiF Monocrystals by Electron Irradiation,
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electrons with average energy of 3 MeV irradiate the LiF
crystals F2- colour centers are produced with a high
efficiency. F2- colour centers consist of two neighbouring
anion vacancies binding three electrons. Due to their
optical non-linear absorption properties, F2- colour centers
generated in LiF, have a number of applications such as
laser Q-switching and generation of tunable i.r. laser
radiation. The paper presents the conditions to generate F2-
colour centers in LiF monocrystals generated by a linear
accelerators. The crystals were employed in Q-switching
and also in central of spiking behaviour of Nd: YAG
lasers. Irradiations were made in electron beam generated
by a linear electron accelerator with average energy of
6 MeV at fluence of about 1015 e/cm².