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Title:	Structural refinement and optical band gap studies of manganese-doped modified sodium potassium lithium niobate lead — piezoelectric ceramics
Authors:	Ray, Rajyavardhan (/jspui/browse?type=author&value=Ray%2C+Rajyavardhan)
Keywords:	Rietveld analysis SEM Kubelka–Munk Band gap
Issue Date:	2014
Publisher:	World Scientific
Citation:	International Journal of Modern Physics B,28(18)
Abstract:	Li-doped NKLN ceramic ($\text{Na}_{0.5}\text{K}_{0.5}\text{Li}_{0.065}\text{NbO}_3$ (NKLN935) in pure and MnO_2 doped compositions have been revisited to carry out a detailed analysis of the structural and optical properties. Rietveld analysis of the X-ray diffraction (XRD) pattern reveals the system to be tetragonal (space group $P4mm$). UV-Visible (UV-Vis) spectroscopy and an equivalent Kubelka-Munk function is used to obtain the optical band gap values. It is reported that with increasing Mn doping, the band gap values decreases, which has been analyzed and understood in terms of the tetragonal structure and is found to be consistent with dielectric properties.
Description:	Only IISERM authors are available in the record.
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