

**Photoresponse of KNbO₃–AF₂O₃ (A = Bi³⁺ or La³⁺)
ceramics and its relationship with bandgap narrowing**

ELICKER, Carolina, PASCUAL-GONZALEZ, Cristina, GULARTE, Luciano,
MOREIRA, Mario, CAVA, Sergio and FETEIRA, Antonio
<<http://orcid.org/0000-0001-8151-7009>>

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SUPPLEMENTARY INFORMATION

Photoresponse of $\text{KNbO}_3\text{--AFeO}_3$ ($\text{A} = \text{Bi}^{3+}$ or La^{3+}) ceramics and their relationship with bandgap narrowing

Carolina Elicker^{a,b,*}, Cristina Pascual-González^b, Luciano T. Gularte^a, Mario L. Moreira^a, Sergio S. Cava^a, Antonio Feteira^b

^a*Grupo de Pesquisa em Crescimento de Cristais Avançados e Fotônica, Universidade Federal de Pelotas, Pelotas, Brazil.*

^b*Christian Doppler Laboratory for Advanced Ferroic Oxides, Sheffield Hallam University, Sheffield, United Kingdom.*

* Corresponding author. E-mail: carolinaelicker@yahoo.com.br

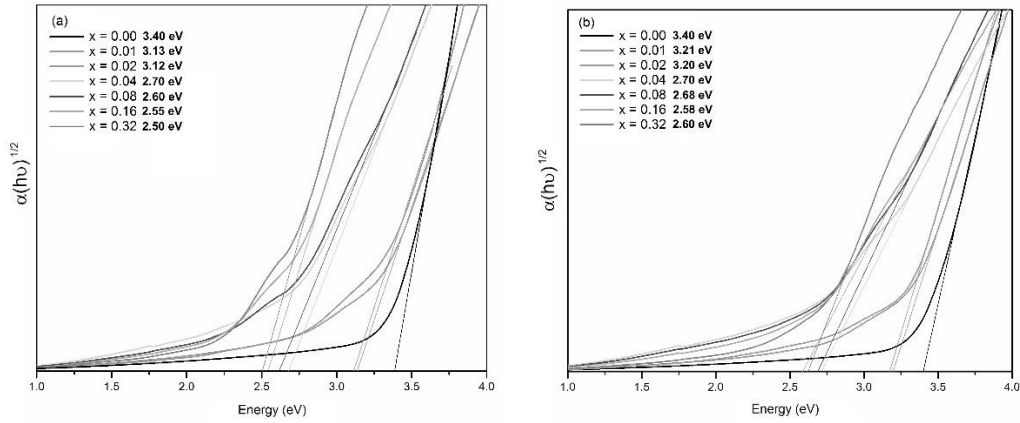


Figure 1 – Tauc plots for KNBF (a) and KNLF (b) ceramics.

All ceramics show Urbach tails, which is expected for any material with disorder, as well as a shoulder that increases with increasing x , that can be associated with charge–transfer excitations and gap defects states probably related to oxygen vacancies[1]. Interestingly, the lone-pair of electrons brought by Bi^{3+} appear to have limited effect on the bandgap narrowing behaviour.

Reference

- [1] F. Burkert, J. Kreisel, C.A. Kuntscher, Appl Phys Lett. 109 (2016) 182903.