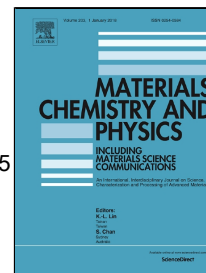


Accepted Manuscript

Insight on the growth and property studies of inorganic hydrated borate ($\text{Na}_6 [\text{B}_4\text{O}_5 (\text{OH})_4]_3 \cdot 8\text{H}_2\text{O}$) single crystal – An effective third order nonlinear optical (NLO) material for optical limiting application



C. Ramki, R. Ezhil Vizhi

PII: S0254-0584(17)30884-2
DOI: 10.1016/j.matchemphys.2017.11.014
Reference: MAC 20134
To appear in: *Materials Chemistry and Physics*
Received Date: 06 July 2017
Revised Date: 26 September 2017
Accepted Date: 06 November 2017

Please cite this article as: C. Ramki, R. Ezhil Vizhi, Insight on the growth and property studies of inorganic hydrated borate ($\text{Na}_6 [\text{B}_4\text{O}_5 (\text{OH})_4]_3 \cdot 8\text{H}_2\text{O}$) single crystal – An effective third order nonlinear optical (NLO) material for optical limiting application, *Materials Chemistry and Physics* (2017), doi: 10.1016/j.matchemphys.2017.11.014

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- $\text{Na}_6[\text{B}_4\text{O}_5(\text{OH})_4]_3 \cdot 8\text{H}_2\text{O}$ single crystal was grown by slow evaporation method.
- Single crystal XRD analysis confirms the crystal belongs to rhombohedral crystal system.
- The UV cut-off wavelength was observed at 220 nm.
- Thermal study shows the material having the melting of 145°C.
- Optical limiting behaviour of the crystal is used to protect the sensors and human eyes.

Download English Version:

<https://daneshyari.com/en/article/7922303>

Download Persian Version:

<https://daneshyari.com/article/7922303>

[Daneshyari.com](https://daneshyari.com)