

Accepted Manuscript

Crystallization kinetics of Sn doped $\text{Ge}_{20}\text{Te}_{80-x}\text{Sn}_x$ ($0 \leq x \leq 4$) chalcogenide glassy alloys

Brian Jeevan Fernandes, N. Naresh, K. Ramesh, Kishore Sridharan, N.K. Udayashankar

PII: S0925-8388(17)32057-1

DOI: [10.1016/j.jallcom.2017.06.070](https://doi.org/10.1016/j.jallcom.2017.06.070)

Reference: JALCOM 42138

To appear in: *Journal of Alloys and Compounds*

Received Date: 13 December 2016

Revised Date: 26 May 2017

Accepted Date: 5 June 2017

Please cite this article as: B.J. Fernandes, N. Naresh, K. Ramesh, K. Sridharan, N.K. Udayashankar, Crystallization kinetics of Sn doped $\text{Ge}_{20}\text{Te}_{80-x}\text{Sn}_x$ ($0 \leq x \leq 4$) chalcogenide glassy alloys, *Journal of Alloys and Compounds* (2017), doi: 10.1016/j.jallcom.2017.06.070.

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.



Crystallization kinetics of Sn doped $\text{Ge}_{20}\text{Te}_{80-x}\text{Sn}_x$ ($0 \leq x \leq 4$) chalcogenide glassy alloys

Brian Jeevan Fernandes ¹, N. Naresh ², K. Ramesh ², Kishore Sridharan ^{*,1} and N. K. Udayashankar ^{*,1}

¹ *Department of Physics, National Institute of Technology Karnataka, Surathkal, P.O. Srinivasanagar, Mangaluru, 575025, India*

² *Department of Physics, Indian Institute of Science, C. V. Raman Avenue, Bengaluru 560012, India*

Highlights

- $\text{Ge}_{20}\text{Te}_{80-x}\text{Sn}_x$ ($0 \leq x \leq 4$) glasses are synthesized through melt quenching technique.
- DSC thermograms obtained under non-isothermal conditions are analyzed and discussed.
- Various thermal parameters are calculated based on the variation of Sn content.
- Thermal stability and glass forming ability decrease with increase in Sn content.
- Easy devitrifiability of the glasses is useful for phase-change memory applications.

^{*} Corresponding authors

Email: kishore@nitk.edu.in, sridharankishore@gmail.com (Kishore Sridharan) and nkuday_01@yahoo.com (N. K. Udayashankar)

Download English Version:

<https://daneshyari.com/en/article/5458648>

Download Persian Version:

<https://daneshyari.com/article/5458648>

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