



83 Views | 6 CrossRef citations to date | 0 Altmetric

Original Articles

Structural and magnetic studies of (Ni_{0.5} M_{0.5} Fe₂O₄) where M = Zn, Cu

N. N. Sarkar , K. G. Rewatkar, N. S. Meshram & V. M. Nanoti

Pages 209-212 | Received 07 Nov 2016, Accepted 06 Jun 2017, Published online: 05 Dec 2017

Cite this article <https://doi.org/10.1080/00150193.2017.1361262>



Sample our
Physical Sciences
Journals



>> **Sign in here** to start your access
to the latest two volumes for 14 days

Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

Share

ABSTRACT

(Ni_{0.5} M_{0.5} Fe₂O₄) where M = Zn and Cu doped ferrite nano-particles are synthesized by Sol-Gel Auto combustion method. The nano-sized Zn, Cu and Ni doped ferrite characterized by XRD. The lattice constant was found to be $a = 8.38 \text{ \AA}$ and 8.41 \AA . It is understood that the lattice parameters increase for Cu as compared to Zn contents. The magnetic properties were determined by using VSM, the saturation magnetization was found to be 34 emu/g and 17 emu/g, respectively, and the remnant magnetization was found to be highly depended upon the cation distribution and crystallinity of the investigated ferrite.

KEYWORDS:

Spinel ferrite

XRD

saturation magnetization

coercivity

cation distribution

Related research 

People also read

Recommended articles

Cited by
6

Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Keep up to date

Register to receive personalised research and resources by email

 Sign me up

