

## Synthesis of Ni doped ZnO nanostructures by low temperature wet chemical method and their enhanced field emission properties

Amit Kumar Rana<sup>1</sup>, Prashant Bankar<sup>2, 3</sup>, Yogendra Kumar<sup>1</sup>, Mahendra A. More<sup>3</sup>, Dattatray J. Late<sup>2, \*</sup>, Parasharam M. Shirage<sup>1, \*</sup>

<sup>1</sup>*Department of Physics & Metallurgical Engineering and Material Science, Indian Institute of Technology Indore, Simrol Campus, Khandwa Road, Indore-453552. India.*

<sup>2</sup>*Physical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan, Pune 411008. India.*

<sup>3</sup>*Department of Physics, Savitribai Phule Pune University, Pune 411007. India.*

\*Author for correspondence: [pms Shirage@iiti.ac.in](mailto:pms Shirage@iiti.ac.in), [paras.shirage@gmail.com](mailto:paras.shirage@gmail.com)

Email: - [datta099@gmail.com](mailto:datta099@gmail.com), [dj.late@ncl.res.in](mailto:dj.late@ncl.res.in); [mam@physics.unipune.ac.in](mailto:mam@physics.unipune.ac.in);

[aramitrana4@gmail.com](mailto:aramitrana4@gmail.com);

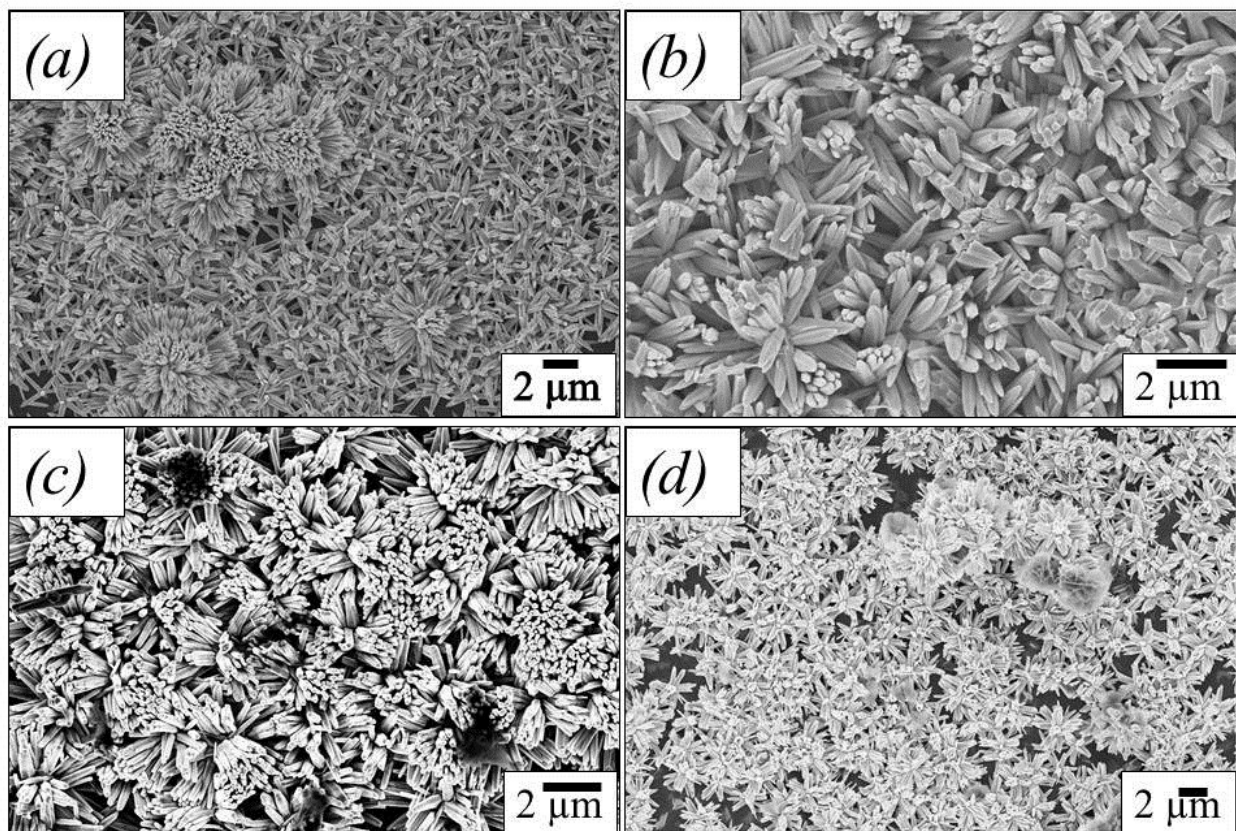


Fig. S1 Shows the FESEM images (a) ZnNi0 (b) ZnNi5 (c) ZnNi7.5 (d) ZnNi10. (5 K X)

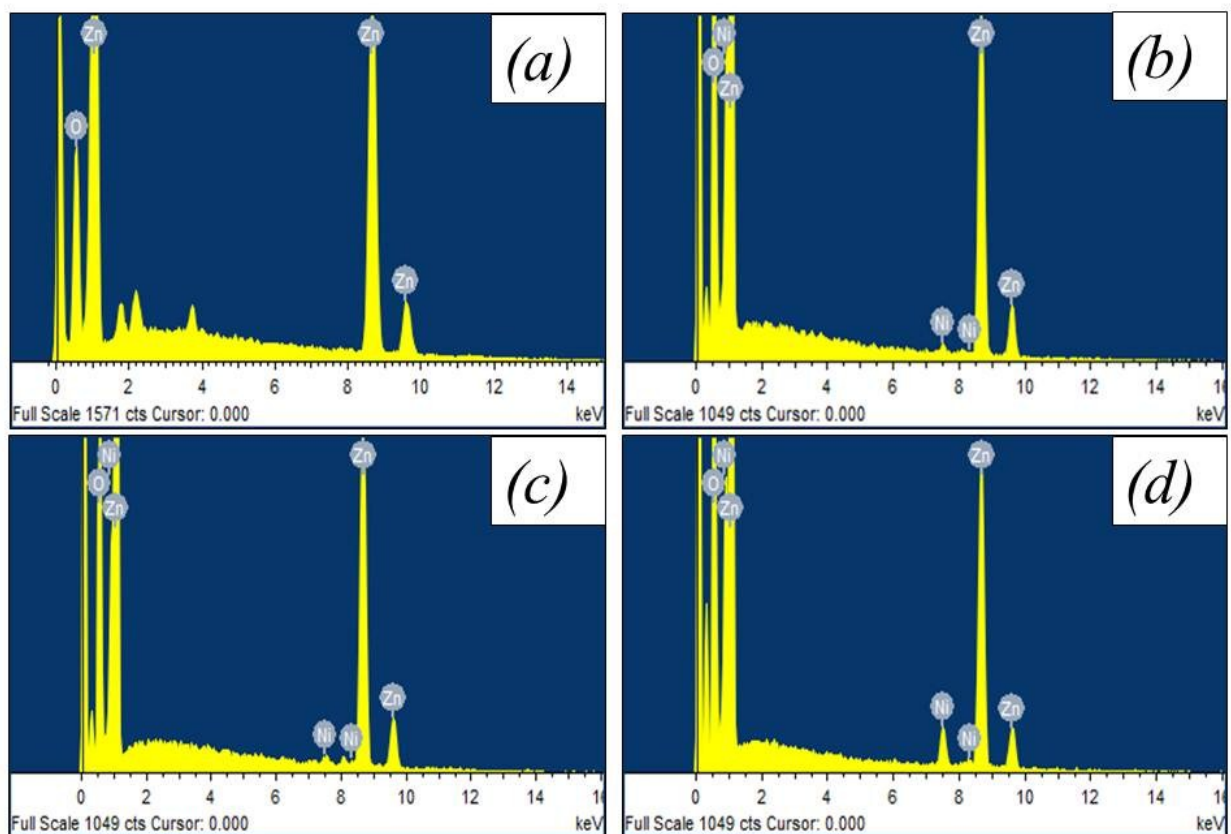


Fig. S2 Shows the EDAX spectra of (a) ZnNi0 (b) ZnNi5 (c) ZnNi7.5 (d) ZnNi10.

Table S1. EDAX analysis of Ni-doped ZnO samples (all result in atomic %)

Element	ZnNi0	ZnNi5	ZnNi7.5	ZnNi10
Ni	0	4.95(±0.05)	7.05(±0.03)	9.90(±0.10)
Zn	100	95.20(±0.05)	92.95(±0.03)	90.10(±0.10)