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Growth of Zinc Oxide thin films for device applications

Chaitra U Dr.

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Publications and Conferences (Dr. Chaitra U)

Indexed publications:

U Chaitra., Dhananjaya. Kekuda, K. Mohan Rao* (2016) "Dependence of solution molarity on structural, optical and electrical properties of spin coated ZnO thin films", *Journal of Materials Science: Materials in Electronics*; Accepted & Published online DOI 10.1007/s10854-016-4745-5.**(Impact Factor: 2.195; Q2)**

U Chaitra, Dhananjaya Kekuda* and Mohan Rao K,(2017) "Effect of annealing temperature on evolution of structural, microstructural and optical properties of spin coated ZnO thin films", *Ceramics International*. Accepted & published online DOI 10.1016/j.ceramint.2017.02.144. **(Impact Factor: 4.527; Q1)**

U Chaitra, Mahesha M. G., Dhananjaya Kekuda*, Mohan Rao K, (2019) "Effect of doping concentration and annealing temperature on Nitrogen doped ZnO thin films: An investigation through spectroscopic techniques", *Applied Physics A*, Accepted and Published online, DOI 10.1007/s00339-019-2681-y .**(Impact Factor: 2.584; Q2)**

U Chaitra, Muhammed Ali A.V, Alison E. Viegas, Dhananjaya Kekuda*(2019, Mohan Rao K, "Growth and characterization of undoped and Aluminium doped Zinc Oxide thin films for SO_2 as sensing below threshold value limit", *Applied Surface Science*, Accepted and Published online, DOI10.1016/j.apsusc.2019.143724. **(Impact Factor: 6.707; Q1)**

A.Kompa, **U. Chaitra**, Dhananjaya Kekuda, Mohan Rao K*(2021), "Investigation on structural, optical and electrical properties of Nd doped titania films and application of optical model",*Materials Science in Semiconductor Processing*; Accepted and Published online, DOI.10.1016/j.mssp.2020.105293. **(Impact Factor: 3.085; Q1)**

U. Chaitra, Muhammed Ali A.V, Mahesha M. G, Dhananjaya Kekuda* and Mohan Rao K (2021), "Property evaluation of spin coated Al doped ZnO thin films and Au/AZO/FTO Schottky diodes", Superlattices and Microstructures, Accepted and Published online DOI.10.1016/j.spmi.2021.106903. **(Impact Factor: 2.658; Q2)**

U Chaitra (2021), "Impact of defect sites on the Raman scattering properties of vacuum annealed nitrogen doped ZnO thin films", Inorganic Chemistry Communications, Accepted and Published online DOI. 10.1016/j.inoche.2021.108784. **(Impact Factor: 2.485; Q2)**

Nayana Acharya, **Chaitra U**, Vijeth H. Raghavendra Sagar (2022), "Highly dense Mn3O4 and CuMn2O4 spinels as efficient protective coatings on solid oxide fuel cell interconnect and their chromium diffusion studies", Journal of alloys and compounds, Accepted and Published online DOI. 10.1016/j.jallcom.2022.165377. **(Impact factor: 6.37; Q1)**

Conference Presentations/FDP's/Workshops attended:

- Participated & completed one-week FDP on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE), held from 2nd November, 2020.
- Participated & completed one-week FDP on "Recent Trends in Advanced Materials and Applications" organized by Department of Physics, NIE, Mysuru, held from 19th October, 2020.
- Completed online non-credit course on "Nanotechnology: A Maker's Course", authorized by Duke University, North Carolina State University and The University of North Carolina at Chapel Hill and offered through Coursera on 19th October, 2020.
- Participated in the one week (online) Short Term Course on "Advanced Energy Materials" organized by Department of Physics, Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Punjab (India) held from 12th October, 2020.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy FDP on "Photonics" Organized by Department of Applied Science and Humanities, Institute of Engineering and Technology, Dr. Rammanohar Lohia Avadh University, Ayodhya on 21st September, 2020.
- Participated in the webinar on "Optical and Electrical modelling software for Semiconductor devices", Organized by BMS Institute of Technology and Management in

association with Impulse Technology, New Delhi and FLUXiM, Switzerland held on 11th of September, 2020.

- Online International Conference on "Zero Dimensional Materials", Organized by Department of Physics, K.L.E. Society's,P. C. Jabin Science College, held on 27th August, 2020
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy FDP on "Novel Materials" Organized by Government college of engineering, Thanjavur. Materials held on 17th of August, 2020.
- Participated in the webinar on "Characterization techniques for nanomaterials", Organized by The National Institute of Engineering, Mysuru held on 26th of June, 2020.
- Participated in the two days national level online workshop on "Astronomy and cosmology" Organized by the department of Physics, Poornaprajna College and Poornaprajna Amateur Astronomers' club held on 18th and 19th of June, 2020
- Completed online non-credit course on "Nanotechnology and Nanosensors, Part 2" authorized by Technion - Israel Institute of Technology offered through Coursera on 26th September, 2020.
- Completed online non-credit course on "Organic Solar Cells - Theory and Practice", authorized by Technical University of Denmark (DTU) offered through Coursera on 26thSeptember, 2020.
- Completed online non-credit course on "Nanotechnology and Nanosensors, Part 1" authorized by Technion - Israel Institute of Technology offered through Coursera on 25th September, 2020.
- Completed online non-credit course on "Material Behavior" authorized by Georgia Institute of Technology offered through Coursera on 25thSeptember, 2020.
- Completed online non-credit course on "Material Processing" authorized by Georgia Institute of Technology offered through Coursera on 24thSeptember, 2020
- Completed online non-credit course on "Methods of Surface Analysis" authorized by National Research Nuclear University MEPhI offered through Coursera on 23rd September, 2020.
- Completed online non-credit course on "Advanced Functional Ceramics" authorized by Yonsei University offered through Coursera on 21st September, 2020.
- Completed online non-credit course on "Medical Applications of Particle Accelerators (NPAP MOOC)" authorized by Lund University offered through Coursera on19th September, 2020.
- Completed online non-credit course on "Introduction to solar cells" authorized by Technical University of Denmark (DTU)offered through Coursera on 20th August, 2020
- **Chaitra U**, Mohan Rao K*, "Investigation of the variation in the doping concentration on the structural and opto-electronic properties of spin coated Aluminium doped ZnO films studied by Wemple di Domenico model", International Conference for Academic Disciplines, (2017), University of London, UK

- **Chaitra U**, Mohan Rao K*, Dhananjaya Kekuda, "Effect of Substrate on Structural and Optical properties of ZnO thin films", National Conference on Condensed Matter Physics and Applications (2017), MIT, Manipal.
- Participated in National Conference on "Condensed Matter Physics and Applications" (2017), held by Dept. of Physics, MIT, Manipal.
- Participated in National Workshop on "Recent trends in Clean Energy Fundamentals to Applications" RTCE-2017 held at MIT, Manipal.
- Participated in mini-workshop on "Cognitive Load Theory-Integrating the Science of Learning with science instructions", Organized by Manipal Center for Professional and Personal developments
- **Chaitra U**, Mohan Rao K*, Dhananjaya Kekuda, "*Effect of Spin Speed on Structural and Optical Properties of Zinc Oxide Thin Films*", International Conference on Materials Research and Applications - ICMRA 2016, Hyderabad.
- Participated and Presented a research poster in Ph.D Poster Presentation competition held at MAHE, Manipal on April, 2016.
- **Chaitra U**, Mohan Rao K*, Dhananjaya Kekuda, "*Effect of Annealing Temperature on Structural and Optical Properties of Zinc Oxide Thin Films*", National Conference on Condensed Matter Physics and Applications(2015), MIT, Manipal.
- Undergone 3 days Induction Program from 6th to 8th January 2011, organized by the Department of Continuing Education and student Counselling, MIT, Manipal.
- Participated in "UGC-DAE Consortium for Scientific research" held in 2010 at Dept. of Physics, MIT, Manipal.
- Participated in "55th DAE-Solid state Physics Symposium"(SSPS-2010) sponsored by BRNS, held during 2010 at Dept. of Physics, MIT, Manipal.

Special interests: Bharatanatyam, Indian Classical and Yakshagana

Declaration

I do hereby confirm that the above mentioned information given is true to best of my knowledge. If further requested, I am ready to provide any additional information.

Dr. Chaitra U 10-08-2021