

CURRICULUM VITAE

DR. B.CHANDAR SHEKAR, M.Sc., M.Phil, Ph.D

Assistant Professor,
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FIELD OF SPECIALIZATION

- Condensed Matter (Thin Film) Physics / Nanotechnology: Transistors, Sensors, Water purification and Solar cell fabrications
- Nano Biomedical Application / Nanotoxicity

NATIONAL AWARDS

- “ **Outstanding Scientist Award**” in the International Scientist Awards on Engineering, Science and medicine, held on 06 &07- Feb-2021, Coimbatore, India, Organized by VDGGOOD Professional Association.
- “**Adarsh Vidya Saraswati Rashtriya Puraskar**” award -2019 by Glacier Journal Research Foundation, Global Management Council, Ahmedbad, India
- **Dr.ABDUL KALAM LIFE TIME ACHIEVEMENT NATIONAL AWARD -2017** by **IRDP, India** for the outstanding excellence and remarkable achievements in the field of TEACHING, RESEARCH & PUBLICATIONS.
- **Dr. APJ Abdul Kalam Award for Scientific Excellence – 2017** by MARINA LABS, Research and Development, India for the outstanding research contribution.
- Selected for **Bharat Ratna Indra Gandhi Gold Medal Award 2017** for the outstanding contribution to Research, Education and Social Service by Global Economic Progress Research Foundation, India.
- **The NEAR National Research Award-2014** (Senior category - *Physical and Nanosciences*), The NEAR Foundation, India, for the outstanding research contribution.

- **Dr. Radhakrishna Shikshana Ratna National Award-2014** for distinguished contributions to the development of the nation and achieving outstanding excellence in the field of **Teaching, Research and Publications** by the International Institute for Social and Economic Reforms, Bangalore, India.
- Selected for **Rajiv Gandhi Gold Medal Award** for outstanding contribution to research and social work by Global Economic Progress Research Foundation 2016.
- Selected for **Best Citizen of India Gold Medal award** (2016) by Global Economic Progress & Research Association, INDIA for Meritorious Research and Social Service to Strengthen India's unity and Economic Development.
- Shortlisted for **Dr. Abdul Kalam Life Time Achievement** by KRIST FOUNDATION (R) Karnataka, INDIA for the remarkable achievements in the field of Teaching, Research and Publications.
- Selected for **Best Citizen of India Gold Medal award** (2018) by Global Economic Progress & Research Association, INDIA for Meritorious Research and Social Service to Strengthen India's unity and Economic Development.

SPECIAL ACADEMIC HONOURS

1. **Meritorious award** given by Kongu Nadu Arts and Science College, Coimbatore during the Academic Year 2014-2015
2. **Meritorious award** given by Kongu Nadu Arts and Science College, Coimbatore during the Academic Year 2013-2014
3. **Meritorious award** given by Kongu Nadu Arts and Science College, Coimbatore during the Academic Year 2012-2013.
4. **Meritorious award** given by Kongu Nadu Arts and Science College, Coimbatore during the Academic Year 2011-2012.
5. **Meritorious award** given by Kongu Nadu Arts and Science College, Coimbatore during the Academic Year 2010-2011.

6. Received **Junior Research Fellowship** from Indian Space Research, Organization (ISRO), Bangalore from 1995-1998.
7. **Best Student of the year award** from Government Higher Secondary School, Kotagiri, Tamil Nadu, INDIA in 1983.

Academic Qualification (Bachelor's Degree: onwards with University, year, subject etc.)

Sl.No	Degree	University	Year of Passing	Subjects	Class / Grade Obtained
1	B.Sc.,	Govt. Arts College, Ooty (Bharathiar University, Coimbatore)	1987	Physics	70.3% / I Class
2	M.Sc.,	Govt. Arts College, Ooty (Bharathiar University, Coimbatore)	1991	Physics	66.61 % / I Class
3	M.Phil.,	Bharathiar University, Coimbatore	1992	Physics	60.67% / I Class Highly Commended
4	Ph.D.,	Bharathiar University, Coimbatore	1999	Physics	Commended

Positions held earlier (in chronological order)

Sl.No.	Designation & Office address	Period		Nature of duties / responsibilities	Reason for leaving
		From	To		
1	Junior Research Fellow Indian Space Research Organization (ISRO), Bangalore, India.	1995	1998	Research in conducting polymer thin films.	Successfully completed the project
2	Project Associate Semiconductor laboratory, Indian Institute of Technology Madras (IIT-M), Madras, INDIA.	1999	2000	Research in semiconducting thin films and ultra thin oxides	Project completed successfully

3	Physicist SAI Patent Services LLC (IIT Inc.), Fairfax, Virginia, U.S.A.	2001	2002	Patent research and consultant for IBM inventions.	Project completed successfully
4	Post-Doctoral Research Scientist Pohang University of Science and Technology Pohang, REPUBLIC OF KOREA.	2002	2004	Research in small molecules and conducting polymers	Project completed successfully
5	Director (Technical) Calyx and Corolla Flora India Pvt. Ltd. Ningamma Buildings, Sagayamatha Hospital Road, Coonoor, The Nilgiris. 643102, INDIA.	2005	2009	Teaching and training to Agri students and farmers.	Successfully completed the project
6	Assistant Professor Department of Physics, Kongunadu Arts and Science College, G.N. Mills, Coimbatore, Tamil Nadu, India.	July 2009	till date	Teaching UG and PG courses (16 hr /week) Research guidance to M.Phil and Ph.D students.	till date

Present Position : Assistant Professor in Physics.

Period: July 2009 - till date

Assistant Professor,

Department of Physics,

Kongunadu Arts and Science College,

G.N. Mills, Coimbatore, Tamil Nadu, India.

RESEARCH SUPERVISION

Research Supervision	Awarded	On going
Ph.D	10	1
M.Phil	5	1
M.Sc	35(Projects)	1
BSc	7	4

RECENT RESEARCH PUBLICATIONS

1. Sharmila C, Prabhavathi V, Dinesh M, Ranjith Kumar R and **Chandar Shekar B**, Shape controlled synthesis of dextran sulfate stabilized silver nanoparticles: biocompatibility and anticancer activity, **Mater. Res. Express**, 6 (2019) 045066.
2. Sathish Sugumaran and **Chandar Shekar Bellan**, A novel InTiO thin film by thermal evaporation technique for high mobility/conductivity with tunable visible emissions, **Optik**, 185 (2019) 997-1008. <https://doi.org/10.1016/j.ijleo.2019.04.036>.
3. Devaraj Bharathi, R.Ranjithkumar, S.Vasantharaj, **B.Chandarshekar**, V.Bhuvaneshwari Synthesis and characterization of chitosan/iron oxide nanocomposite for biomedical applications, **International Journal of Biological Macromolecules**, 132 (2019) 880-887 <https://doi.org/10.1016/j.ijbiomac.2019.03.233>.
4. Devaraj Bharathi, R.Ranjithkumar, **B.Chandarshekar** and V.Bhuvaneshwari, Preparation of chitosan coated zinc oxide nanocomposite for enhanced antibacterial and photocatalytic activity: As a bionanocomposite, **International Journal of Biological Macromolecules**, 129 (2019) 989 - 996. <https://doi.org/10.1016/j.ijbiomac.2019.02.061>
5. Dinesh, B., R. Ranjithkumar, C. Sharmila, K. Selvam and **B. Chandar Shekar**, ANTICANCER ACTIVITY OF SILVER NANOPARTICLES AGAINST HUMAN BREAST CANCER CELL LINE, **Kong. Res. J.** 6(1) (2019) 24-28.
6. Vidhya, P., A. Ranjitha, A.S. Balaganesh, R. RanjitKumar and **B. Chandar Shekar** , Structural and optical properties of cadmium sulfide nanoparticles prepared by precipitation method , **Kong. Res. J.** 6(1) (2019) 22-23.
7. S. Nithya, **B. Chandar Shekar**, K.R. Aranganayagam, K. Boopathi, Hirshfeld Surface and Natural Bond Orbital Analysis of 2-Amino-6-Methylpyridinium Hydrogen Glutarate, **International journal of Research in Engineering Application and Management (IJREAM)**, 5(3) (2019) 319 – 324.
8. Ranjith Kumar, R., J. Manikantan, A.S. Balaganesh, K.P.B. Dinesh and **B. Chandar Shekar**, Fruit biowaste mediated green route approach silver nanopartilces -as antibacterial material, **Kong. Res. J.** 6(2): (2019) 81-86.
9. Balaganesh, A.S., N Pavithra, R. RanjitKumar, K.P.B. Dinesh and **B. Chandar Shekar**, Bio-assisted synthesis of potassium doped ferric sulphide nanoparticles for agricultural applications, **Kong. Res. J.** 6(2): (2019) 4-7.

10. V.R. Sreelakshmi, K. Karuppuswamy, M. Jithin, G. Marimuthu, **B. Chandar Shekar**, Structural, optical, antibacterial and photocatalytic activity of ZnO nanoparticles prepared by precipitation method, **Int. J. Biosci. Nanosci.**, 6(1) (2019) 157-162.
11. S.Nithya, K.R. Aranganayagam, **B. Chandar Shekar**, K. Boopathi, Growth, characterization and dft calculations on 2-amino-6-methylpyridinium hydrogen glutarate, **Rasayan Journal of Chemistry**, 12(3) (2019) 1399 -1404.
12. Muthu Priya, Jagdev Singh, Ravindra H and **Chandar Shekar B.**, Periodic and quasi periodic variations in Ca-K index during the 20th century using Kodaikanal data, **Solar Physics**, (2019) 294:131.
13. Devaraj Bharathi , R. Ranjithkumar , **B. Chandarshekar** , V. Bhuvaneshwari , Bio-inspired synthesis of chitosan/copper oxide nanocomposite using rutin and their anti-proliferative activity in human lung cancer cells, **International Journal of Biological Macromolecules**, 141(2019) 476-483.
14. R. P. Senthilkumar, V. Bhuvaneshwari, V. Malayaman, G. Chitra, R. Ranjith, K.P.B. Dinesh, **B. Chandar Shekar**, Biogenic method of cerium oxide nanoparticles synthesis using wireweed (*Sida acuta* Burm.f.) and its antibacterial activity against *Escherichia coli*", **Materials Research Express**, 6 (2019) 105026.
15. N. Manivannan , **B. Chandar Shekar**, C.K.Senthil Kumaran and S.Sugapriya, Structural, Morphological, Opto-luminescence and magnetic behavioral variations of Co-ZnS hybrid nanoparticles, **Indian Journal of Physics**, 94, (2020) 919–925.
16. N. Pavithra, M. Shiva Subramani, A.S. Balaganesh, R. RanjitKumar, K.P.B. Dinesh and **B. Chandar Shekar** . Bio-assisted synthesis of ferric sulphide nanoparticles for agricultural applications, **Kong. Res. J.**, 7(1): 35-38, 2020
17. S. Nithya , **B. Chandar Shekar** , K.R. Aranganayagam, and K. Boopathi, Influence of Classical N-H...O and C-H...O Hydrogen Bonding Interactions on 2-amino5-methylpyridinium Hydrogen Succinate Crystal: Experimental and Theoretical Perspectives, **Materials Research Express**, 6 (12) (2020) 125118. <https://doi.org/10.1088/2053-1591/ab5ff1>.
18. R. Sengodan and **B. Chandar Shekar**, Optical properties of strontium doped BaTiO₃ thin films by thermal evaporation method for optoelectronic devices, **Journal of Optoelectronics and Advanced Materials**, 22 (5-6) (2020) 280 – 285.
19. V.R. Sreelakshmi, K. Karuppuswamy, M. Jithin, G. Marimuthu, **B. Chandar Shekar**, Photocatalytic and antibacterial activity of Co doped ZnO NPs prepared by Co-precipitation method, **Int. J. Biosci. Nanosci.**, 7(1) (2020) 163-170

20. Sharmila Chandran, Thilagavathy Ponnusamy, Dinesh Bheeman, Ranjith Kumar Rajamani, **Chandar Shekar Bellan**, Dextran sulfate stabilized silver nanoparticle: next generation efficient therapy for cancer, **International Journal of Applied Pharmaceutics**, 12(1), (2020), 59-63.
21. H.R. Pratheep, V. Vadivelan and B. ChandarShekar, Literature survey of holographic interferometry, **International Journal of Scientific & Engineering Research**, 11(9)(2020) 826.
22. N.Manivannan, **B.Chandar Shekar**, P.Matheswaran, M.Mohammed Ibrahim, C.K.Senthil Kumaran, Induced ferromagnetic behavior of Cr doped ZnS nano particles, **Materials Today Preceedings**,, <https://doi.org/10.1016/j.matpr.2020.07.185>.
23. N. Kamatchi Devi and **B. Chandar Shekar**, Preparation and characterization of anatase phase TiO₂ nanoparticles at low temperature, **International Journal of Advances in Engineering and Management (IJAEM)**, 2(1)(2020)254-259.
24. V.R. Sreelakshmi, K. Karuppuswamy, M. Jithin, G. Marimuthu, **B. Chandar Shekar**, Synthesis, characterization, antibacterial and photocatalytic properties of Al doped ZnO nanoparticles (Al-ZnO NPs), **Int. J. Biosci. Nanosci.**, 7(5) (2020) 187-194.
25. A.S.Balaganesh, , N. Pavithra 1, R. Ranjith Kumar K.P.B. Dinesh and **B. Chandar Shekar**, Synthesis of potassium doped ferric sulphide nanoparticles using bio-assisted method for agricultural applications, **Kong. Res. J.** 7(2): 22- 25, 2020.
26. B. Ranjithkumar, ,Hullathy Bellie Ramalingam, Easwaran Ranjith Kumar, Ch Srinivas, G. Magesh, Sharmila Rahale, Nashwa M. El-Metwaly, **Chandar Shekar Bellan**, Natural fuels (Honey and Cow urine) assisted combustion synthesis of zinc oxide nanoparticles for antimicrobial activities, **Ceramics International**, 47 (10)(2021), 14475-14481.
27. N. Manivannan, **B.Chandar Shekar**, C.K.Senthil Kumaran, P.Matheswaran, B.Gokul, M. Mohammed Ibrahim, Room temperature synthesis and Structural, opto- Luminescence, magnetic behavioral variations of Mn doping on ZnS hybrid nanoparticles by chemical precipitation method, **Materials Today: Proceedings**, 47(2021)1741-1746.
28. B.Ranjithkumar, E.Ranjith Kumar, M.Srinivas, H.B.Ramalingam, Ch.Srinivas, G.Magesh, A.Balamurugan, C. SharmilaRahale, **B.Chandar Shekar**, Evaluation of structural, surface morphological and thermal properties of Ag-doped ZnO nanoparticles for antimicrobial activities, **Physica E: Low-dimensional Systems and Nanostructures**, 133(2021) 114801.
29. S. Sugumaran , T. A. Divya , R. K. Sivaraman , **C. S. Bellan** , K. C. Sekhar , and M. F. Jamlos, Structure, morphology and I–V characteristics of thermally evaporated LaAlO₃ nanostructured thin films, **J Mater Sci: Mater Electron**, 2021. <https://doi.org/10.1007/s10854-021-07139-z>

30. L.S. Niranjana, M. Mathankumar, D. Karthikkumar, R. Ranjithkumar, **B. Chandar Shekar**, Ling Shing Wong and Sinouvassane Djearamane, Preparation and characterization of calcium phosphate chitosan nanocomposite as plant growth promoter, **Journal of Experimental Biology and Agricultural Sciences**, 10(3), 567- 574, (2022).
31. Karthikkumar. D, B. Divya, R. Ranjithkumar, **B. Chandar Shekar**, Ling Shing Wong and Sinouvassane Djearamane, Synthesis and characterization of magnesium doped ferric sulphate (Mg-Fe₂SO₃NPs) nanoparticles for agriculture applications, **Journal of Experimental Biology and Agricultural Sciences**, 10(4), 733-780, (2022)