

Name : Dr. E. M. Koushika
Designation : Assistant Professor
Department : Physics
Qualification : M.Sc., Ph.D.
Experience : Teaching: 1 Year Research: 7 years
Area of Specialization(s) : Thermal Plasma Processing
Email (Official ID) : koushikaem@drngpasc.ac.in



Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph.D.	Physics	Bharathiar University	2020
MSc	Physics	Kongunadu Arts and Science College	2012
BSc	Physics	Kongunadu Arts and Science College	2010

Research Publications (Indexed)

International

- **E.M. Koushika**, G. Shanmugavelayutham, P. Saravanan, C. Balasubramanian, Rapid synthesis of nano-magnetite by thermal plasma route and its magnetic properties, Materials and Manufacturing Processes. 33 (2018) 1701–1707. ISSN: 1042-6914, 10.1080/10426914.2018.1453163 (Indexed in SCIE)
- **E.M. Koushika**, C. Balasubramanian, P. Saravanan, G. Shanmugavelayutham, Influence of He and N₂ plasma on in-situ surface passivated Fe nanopowders by plasma arc discharge, Journal of Physics: Condensed Matter. 31 (2019) 47532, ISSN:0953-8984, 10.1088/1361-648X/ab35aa (Indexed in SCI)

Presentations in Conference

Degradation of textile effluents by thermal plasma processed core-shell nanoparticles, International symposium on nanomaterials for clean energy and health applications (ISNCHA-2017), Coimbatore Institute of Technology, Coimbatore, 6- Dec-17 to 9-Dec-17.

Synthesis and spheroidization of iron oxide nanoparticles by DC transferred arc plasma, National conference on advanced materials for energy and environmental applications (AMEEA-2015), Department of Physics, Bharathiar University, Coimbatore, 18- Mar to 20- Mar-15.

Preparation and characterization of α -Fe nanopowders by DC transferred arc plasma, 30th National symposium on plasma science and technology (PLASMA-2015), Saha Institute of Nuclear Physics (SINP) in association with Plasma Science Society of India (PSSI), Kolkata, 1- Dec to 4-Dec-15.

Participation in Conference

National

28th National symposium on Plasma Science & Technology (PLASMA 2013), PSSI and KIIT University, Bhubaneswar, 3-Dec to 6-Dec-13.

National conference on Advanced Functional Materials (NCAFM – 2014), Department of Physics, Bharathiar University, Coimbatore, 30-Jan to 31-Jan-14.

Symposium on materials and research techniques (SMART-2017), Department of Physics and Medical Physics, Bharathiar University, Coimbatore, 28-Feb-17.

Participation in Seminars

UGC-DAE-CSR Lecture series: Module 2 (Magnetism of materials), UGC- DAE Consortium for Scientific Research, Indore, 15-Sep to 26-Sep-16.

National Seminar on Advanced Functional Materials, Department of Physics, Bharathiar University, Coimbatore, 23-Mar-17.

Participation in Workshop

Science academies' lecture workshop, Department of Physics, PSGR Krishnammal College for Women, Coimbatore, 5-Jan to 6-Jan-12.

Atmospheric Plasma Processing (WAPP-2012), Department of Physics, Bharathiar University, Coimbatore, 31-Oct to 3-Nov-12.

Training in materials studio, Department of Nanoscience and Technology, Bharathiar University, Coimbatore, 31-Mar to 1-Apr-16.

Powder, nano and thin film characterization using X-ray diffraction, PGTECHS COE INDUTECH, Coimbatore, India in collaboration with PANalytical India and The Office of Textile, Commissioner, Ministry of Textiles, Govt of India, 15-Dec to 16-Dec-16.

National level workshop on “Recent Trends and Opportunities in Physics, VIT-AP, 10-April and 17-April-2021.

Participation in Faculty Development Programme

Online Faculty Development Programme on Research Methodology and Pedagogy for Tertiary Education, Dr. N. G. P Arts and Science College, Coimbatore, 15-June to 21-June-2021.

Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
Plasma Science Society of India	Life-time	-