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National Institute of Technology,

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Academic Identity : [Google Scholar Id](#)

[Orcid Id](#)

[Scopus Id](#)

[Researcher Id](#)

	All	Since 2019
Citations	2498	1406
h-index	30	23
i10-index	56	43

## EDUCATION

- [Ph.D. in Physics, Anna University, Chennai, Tamil Nadu, India \(2003\).](#)
- M.Sc. in Physics, Madras University, Chennai, India (1998).
- B. Sc. in Physics, Manonmaniam Sundaranar University, Tirunelveli, (1996).

## EXPERIENCE

- Chairman, NIT Schools (REC Middle School, NIT Nursery School) (30<sup>th</sup> Sep. 2023 – Till Date)
- Professor, National Institute of Technology, Tiruchirappalli (30<sup>th</sup> Sep. 2019 – Till Date)
- Head of the Department, Department of Physics, National Institute of Technology, Tiruchirappalli (20<sup>th</sup> Jan. 2020 – 15<sup>th</sup> December 2022)
- Associate Professor, National Institute of Technology, Tiruchirappalli (6<sup>th</sup> Nov. 2011 – 29<sup>th</sup> Sep. 2019).
- Assistant Professor, National Institute of Technology, Tiruchirappalli. (6<sup>th</sup> Nov. 2008 – 5<sup>th</sup> Nov. 2011).
- Lecturer (6<sup>th</sup> CPC Assistant Professor), National Institute of Technology, Tiruchirappalli (27<sup>th</sup> April 2006 – 5<sup>th</sup> Nov. 2008).
- Postdoctoral Researcher, Ewha Womens University, Korea (Nov. 2005 - March 2006).
- Brain Korea 21 Postdoctoral Researcher, Seoul National University, Korea (Nov. 2003 - October 2005).
- Project Assistant, Crystal Growth Centre, Anna University, Chennai (29.09.1998 – 31.03.2003).

## AREA OF INTERESTS

### Energy and Environmental Engineering

- Photocatalysis Water filtration
- Antifoulants
- Supercapacitor
- Non-enzymatic sensors
- Solar Cells

## HONOURS

- **Brain Korea 21 Postdoctoral Researcher**, Seoul National University, Korea.
- **Editorial Board Member** of International Journal of Nanomaterials and Technology, Serials Publications.
- **Manging Guest Editor**, Materials Today Proceedings, Elsevier (**2021-2022**)

- International Conference on Novel Engineering Materials for Biomedical, Energy, Environment, Sensing, And Other Applications, Volume 58, Part 3, Pages 789-986 (2022)
- **Guest Editor**, Material Letters: X, Elsevier (2021)
- **Review Editor in Nanotechnology**, Frontiers in Energy Research

## BOOK EDITED

Natural/Inorganic Fillers Reinforced Kevlar Fabric Based Polymer Composites, Edited by Mohit Hemanth Kumar, Nivedha B., M. Ashok, Nova Science Publishers, Inc., New York, Series: Polymer Science and Technology, Publication Date: June 2022

**[BISAC: REF020000; SCI097000.](#)**

DOI: <https://doi.org/10.52305/WNPG1551>

ISBN: 978-1-68507-864-5

## BOOK CHAPTER

Promising Electrode Materials for Hybrid Supercapacitors

By Biny R. Wiston, Ashok Mahalingam

Book: Energy Harvesting and Storage Devices: Sustainable Materials and Methods edited by Dr. Laxman Raju Thoutam,; Dr. J. Ajayan, ; Dr. D. Nirmal, Edition 1st Edition, First Published 2023, Imprint CRC Press. Pages 33

**[CRC Press eBook ISBN9781003340539.](#)**

## RESEARCH GUIDANCE

No. of Ph.D. thesis guided : **7**

No. of M.S guided : **2**

No. of PG Dissertations : 28  
 guided

Name of the PhD Scholar	Title of PhD Thesis	Year of Award
Dr. P. Michael Sahaya Lucy Shanthi	Synthesis and Characterization of Mesoporous Nano Hydroxyapatite for bone-specific drug and other bio application	2013
Dr. Pradeep Reddy Vanga	Multiferroic and Photocatalytic properties of pure and modified BiFeO <sub>3</sub> synthesized by various methods	2016
Dr. K. Vijaya Sankar (Roll No: 413912001)	Preparation and study of PbBi <sub>2</sub> Nb <sub>2</sub> O <sub>9</sub> based visible light active photocatalysts for organic pollutant dye degradation	2021 (Viva: 12.02.2021)
Dr. M. Helen Selvi (Roll.No: 413913051)	Photocatalytic and anti-microbial activities of Bi <sub>2</sub> WO <sub>6</sub> nano-plate structure synthesized by hydrothermal method	2021 (Viva: 15-04-2021)
Dr. Harinee S. (Roll No. 413116005)	Green synthetic nanocomposite activities on photocatalytic and anti-microbial applications	28/7/2022AM (viva:28th July 2022)
Dr. R. Gomathi (Roll. No. 413117056)	Characterization Of Wall Loss Defect in Glass Fibre Reinforced Polymer Curved Composite Through Pulsed and Lock-In Thermal Non-Destructive Evaluation	2022 (viva:28th July 2022)
Dr. Biny R Wiston,	Design and development of transition metal hydroxides for energy storage application	18.05.2023

## PATENTS

S. No.	Invention	Name of Inventors	Year	Status (Filed / Published / Granted)
1.	Biogenic eco-friendly pickling solution for mild steel	1)Muthukumar Krishnan 2)Harinee Subramanian 3)Arthur James Rathinam <b>4)Ashok Mahalingam</b> 5)Vignesh Sivanandham 6)Santhosh Gokul Murugaiah 7)Henciya Santhaseelan 8)Palanichamy Seeni 9)Subramanian Gopalan 10)Rajkuberan Chandrasekaran 11)Mathimani Thangavel	2022	<b>Patent Number :391300</b> <b>Date of Grant: 07/03/2022</b> Patent Application No. 202141026551 dated June 15, 2021 The Patent Office Journal No. 27/2021 Dated 02/07/2021

2.	Design And Development of Kevlar Fabric Based Epoxy Composites Reinforced with Hybrid Metal Oxide Fillers and Saw Dust For Battery Structure Application	1) Ms. Nivedha B 2) Dr. H. Mohit 3) <b>Dr. M. Ashok</b>	2023	<b>Patent Number :422369</b> <b>Date of Grant: 20/02/2023</b> Application Number: 202141028336 Publication Number: 28/2021 Publication Date: 09/07/2021 Application Filing Date: 24/06/2021
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### MAJOR R & D PROJECTS

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Nano-Porous Hydroxyapatite Nano-composite for Tissue Engineering Applications	DST	2006	2010	Completed
Surface Modification of Biodegradable Magnesium Alloys by Plasma Electrolytic Processing for Orthopaedic Implant Applications (as Co-Investigator) <i>(Dr.N. Ramesh Babu, MME, NITT is the PI )</i>	DST	2012	2015	Completed

Development of High Surface Area, Microporous Plasma Electrolytic Oxide Layers on Commercially Pure Titanium as Promising Systems for Photocatalytic Applications (as Co- Investigator) ( <i>Dr.N. Ramesh Babu, MME, NITT is the PI</i> )	DST-SERB EMR/2016/0 03259	2017	2020	Completed
Development of nanostructures Titanium implants with bioactive and antibacterial composite coatings for dental and maxillofacial applications (as Co-Investigator) ( <i>Dr.N. Ramesh Babu, MME, NITT is the PI</i> )	DST-SERB	2019	2021	Completed

## PROFESSIONAL RESPONSIBILITIES

- Staff Advisor, Photography Club, National Institute of Technology, Tiruchirappalli.
- Staff Advisor, Festember 2008 (Marketing, Publicity), National Institute of Technology, Tiruchirappalli.
- Warden for Garnet Hostel, National Institute of Technology, Tiruchirappalli.
- Executive Member, Annual Sports day, National Institute of Technology, Tiruchirappalli.
- Committee member in digital classroom, National Institute of Technology, Tiruchirappalli.
- DAC member, Department of Physics, National Institute of Technology, Tiruchirappalli.
- Member- Institute Vigilance Committee, National Institute of Technology, Tiruchirappalli.
- B.Tech I<sup>st</sup> year Physics coordinator, National Institute of Technology, Tiruchirappalli.

## OTHER CONTRIBUTIONS

- ASNT Level II in Ultrasonic Testing
- Added many experimental setup for M. Tech. (NDT) and B. Tech. (Immersion C-Scan, Phased Array Ultrasonic System, Eddy Current System and B. Tech. Optical Fibre based experiments)
- Founder of New Generation Materials Lab and Advanced NDE Lab
- Guided French student under ISAE, ENSMA, under Research Laboratory Internship in 10-06-2013 to 06-09-2013

- Guided French student under ISAE, ENSMA, under Research Laboratory Internship in 1-06-2016 to 20-08-2016
- Life Member, Indian Society for Non-Destructive Testing, LM8441, 2009
- Mentor, two National Post-Doctoral Fellows (N-PDF), SERB, India
- K. Sangeetha (2017-19)
- K. Muthukumar (2017-19)
- Mentor, DST-INSPIRE Fellow (Biny R. Wiston, IF170069, SRF), 'Design and development of transition metal hydroxides for energy storage application' (2017-2022)

## **PUBLICATIONS:**

Total Publication in peer reviewed international journals	100+
Invited Talks	20+
Total no. of conference organized	16+
Total no. of conference attended	15+
Publication in international Proceedings	65+

## **INVITED TALKS**

1. Synthesis and Characterization of Advanced Functional Material", 26<sup>th</sup> – 28<sup>th</sup> March 2007, Workshop on synthesis and Characterization of Advanced Functional Materials, ICGAR, Kalpakkam.
2. Synthesis and Characterization of Nano Crystalline Hydroxyapatite Spheroids Using Anionic Template for Bio Applications", 6<sup>th</sup> – 9<sup>th</sup>, November 2011, BioCeramics -23<sup>rd</sup> Symposium and annual meeting of International society for ceramic in Medicine (ISMC), Turkey.

3. Structural, Thermal and Magnetic Analysis of  $\text{Co}_2\text{FeO}_4$  Spinel Oxide Synthesized by Co-Precipitation Process”, 18<sup>th</sup> - 20<sup>th</sup> December 2012, 4<sup>th</sup> International conference on Solid State Science and Technology, Malaysia.
4. The Effects of Mode of Addition and Agitation on The Morphology of Nano HAp”, 18<sup>th</sup> - 20<sup>th</sup> December 2012, 4<sup>th</sup> International conference on Solid State Science and Technology, Malaysia.
5. Nano- BioMaterial”, 4<sup>th</sup> July 2013, AICTE sponsored FDP program on Recent Development in Nano- Material and Nano Technology, Muthayammal Engineering College, Rasipuram, Tamil Nadu, India.
6. Nano-Material”, 14<sup>th</sup> March 2014, National conference on Recent Trends and application in mathematics and Physics.
7. Application of Nanomaterials”, 22<sup>nd</sup> August 2014, at Biomedical Engineering, PSG College of Technology on Advances in Molecular Diagnostics and Therapeutics.
8. Classification of Biomaterials and its applications”, 22<sup>nd</sup> December 2014, FDTP on Engineering Physics II (PH6251), University College of Engineering Tindivanam.
9. Nano-Biomaterials and its applications”, 12<sup>th</sup> Feb. 2015, FDTP Refresher course on Current Trends in Physics (CTP-2015) at School of Physics, Madurai Kamaraj University, Madurai.
10. Emulsification and removal of Excess penetrant”, 7<sup>th</sup> April 2015, ISNT, Trichy Level II certificate Course for POST GRADUATE DIPLOMA COURSE (WRI& PSG CT).
11. Nano-Biomaterials and its applications”, 16<sup>th</sup> July 2015, Department of Physics, Periyar University, Salem.
12. Ion Beam Analysis”, 29<sup>th</sup> July 2015, Advanced Research in Materials for Engineering and Technological Applications (ARMETA-2015), Anna University, Tiruchirappalli.
13. Ultrasonic Testing”, 9<sup>th</sup> Oct. 2015, M. Kumarasamy College of Engineering, Karur.
14. Effect of Complexing Agent on the Formation of  $\text{BiFeO}_3$  and Its Photocatalytic Properties”, 27<sup>th</sup> June 2016, International Conference on Material Engineering and Smart Materials (ICMESM 2016), Singapore.
15. Nano-Structured materials”, 1<sup>st</sup> March 2017, Department of Chemistry, University college of engineering, Villupuram.
16. Introduction non-destructive testing”, 6<sup>th</sup> March 2017, Department of Physics, Alagappa University, Karaikudi.
17. Why we need Nano-Structured materials”, 14<sup>th</sup> July 2017, Department of Physics, Central University of Tamil Nadu.

18. Exploring nanostructured materials for energy and environmental remediation”, 28-29 February 2020, UGC Sponsored Two Day National Seminar on Emerging trends in Physics (NSETP-2020), Sadakathullah Appa College, Palayamkottai, Tirunelveli
19. 'Materials for Energy and Environmental Science', National Conference on Materials for Energy and Environment (MEE-22), AMET Deemed to be University, Chennai (28th Jan. 2022).
20. Workshop on 'Nanomaterials for emerging applications' (NMEA-2022) organized by National Institute of Technology, Tiruchirappalli on 25 and 26 February 2022.

**International Publications :**

- 1 Antimicrobial activity of Sargassum muticum incorporated nanohydroxyapatite hexagonal rods synthesized by co-precipitation method  
PMSL Shanthi, A Deepavalli, M Ashok, D Velmurugan, RA James  
Materials Letters 360, 135920, 2024
- 2 Photocatalytic bio-inspired PDA-RGO/g-C<sub>3</sub>N<sub>4</sub> nanocomposite incorporated PES membrane for removal of environmental antibiotic pollutants  
B Govardhanan, SA GokulaKrishnan, G Arthanareeswaran, M Ashok, ...  
Journal of Chemical Technology & Biotechnology, 2024
- 3 Photodegradation of methylene blue dye using graphene oxide incorporated, post-transition metal doped zinc oxide thin films by spray pyrolysis  
J Paul, K Dhivyaprasath, M Ashok, MCS Kumar  
Physica Scripta 99 (2), 025953, 2024
- 4 Photocatalytic Properties of Different Nanocomposites for Effective Removal of Organic Pollutants  
HS Malayappan, A Mahalingam  
Elsevier, 2024
- 5 Caffeine additive based nanoarchitectonics of methylammonium lead iodide (MAPbI<sub>3</sub>) perovskite solar cell device: investigations on charge carrier properties using ...  
R Dhanabal, D Kasinathan, A Mahalingam, K Madhuri, AC Bose, SR Dey  
Journal of Materials Science: Materials in Electronics 34 (33), 2205, 2023
- 6 The effect of lanthanides (Er, Gd and La) on the adsorption and photocatalytic performance of bismuth ferrite  
PR Vanga, P Reddy, M Ashok

MRS Advances 8 (15), 849-854, 2023

- 7 Hydrothermal synthesis of spindle structure copper ferrite-graphene oxide nanocomposites for enhanced photocatalytic dye degradation and in-vitro antibacterial activity  
H Subramanian, H Santhaseelan, VT Dinakaran, V Devendiran, ...  
Environmental Research 231, 116095, 2023
- 8 Graphene Oxide Incorporated Zinc Oxide Thin Films by Spray Pyrolysis for Efficient Photodegradation of Methylene Blue  
J Paul, K Dhivyaprasath, M Ashok, M Chandroth Santhosh Kumar  
ChemistrySelect 8 (25), e202300034, 2023
- 9 Enhanced photocatalytic activity of Bi<sub>2</sub>WO<sub>6</sub>/ZnO nanocomposite in degradation of methylene blue under sunlight irradiation and for antimicrobial activity  
MH Selvi, M Ashok, PR Vanga, S Harinee, BR Wiston  
Optik, 171092, 2023
- 10 Degradation Behavior of Methylammonium Lead Iodide (CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>) Perovskite Film in Ambient Atmosphere and Device  
K Dhivyaprasath, M Ashok  
Solar Energy 255, 89-98, 2023
- 11 Insights into coprecipitated cerium oxide/hydroxide–nickel hydroxide composite for high efficacy supercapacitors  
BR Wiston, S Tawatia, M Ashok  
Materials Today Sustainability 21, 100291, 2023
- 12 Supercapacitor Performance of β-Cobalt Hydroxide Prepared via a One-Pot Hydrothermal Method  
BR Wiston, M Preethi, M Ashok  
Journal of Electronic Materials 52 (3), 1644-1651, 2023
- 13 Optimization of nickel manganese ratio to attain highly efficient electroactive composite for supercapacitors  
BR Wiston, K Dhivyaprasath, S Tawatia, M Ashok  
Journal of Alloys and Compounds 935, 167982, 2023
- 14 Preserved crystal phase and morphology: Improving the magnetic and electrochemical performance of sulfur doped tin oxide nanoparticles synthesized via the hydrothermal method  
MA Dar, NA Mala, MY Bhat, SR Ahamed, BA Reshi, M Ashok, AA Rather  
Applied Surface Science Advances 13, 100360, 2023
- 15 Synthesis of Bimetallic BiPO<sub>4</sub>/ZnO Nanocomposite: Enhanced Photocatalytic Dye Degradation and Antibacterial Applications

- M Krishnan, H Subramanian, SK Ramachandran, A Muthukumarasamy, ...  
International Journal of Molecular Sciences 24 (3), 1947, 2023
- 16 Solution Processed NiO/MoS<sub>2</sub> Heterostructure Nanocomposite for  
Supercapacitor Electrode Application  
D Kasinathan, P Prabhakar, P Muruganandam, BR Wiston, A Mahalingam, ...  
Energies 16 (1), 335, 2022
- 17 Natural/Inorganic Fillers Reinforced Kevlar Fabric Based Polymer Composites  
MAE Mohit Hemanth Kumar (Editor), Nivedha B (Editor)  
<https://doi.org/10.52305/WNPG1551>, 2022
- 18 Synthesis and characterization of efficient photocatalyst from seaweed  
extract under solar irradiation  
G Jerlin, M Ashok  
Functional Materials Letters 15 (06), 2251047, 2022
- 19 Bio-approach ZnO/Ag nano-flowers: Enhanced photocatalytic and photoexcited  
anti-microbial activities towards pathogenic bacteria  
S Harinee, K Muthukumar, RA James, M Arulmozhi, HU Dahms, M Ashok  
Materials Today Sustainability 18, 100133, 2022
- 20 Bimetallic NiFe hydroxide coated onto commercial graphite foil as efficient  
supercapacitor electrode  
BR Wiston, P Prabhakaran, M Ashok  
Journal of Energy Storage 50, 104226, 2022
- 21 Decoding the Charge-Storage Properties of CeO<sub>2</sub> Decorated  $\alpha$ -Nickel  
Hydroxide in Battery-Type Supercapacitors  
BR Wiston, S Tewatia, A Mahalingam  
ECS Transactions 107 (1), 12637, 2022
- 22 Characterization of Wall-Loss Defects in Curved GFRP Composites Using  
Pulsed Thermography  
R Gomathi, M Ashok, M Menaka, B Venkatraman  
Materials Evaluation 80 (3), 2022
- 23 Structural, Microstructural, Magnetic, Ferroelectric, and Energy Bandgap  
Analysis of Heavily-Doped Pr at Bi Site of BiFeO<sub>3</sub>  
A Bismibanu, M Alagar, IBS Banu, PR Vanga, T Selvalakshmi, M Ashok  
Brazilian Journal of Physics 52, 1-8, 2022
- 24 Photocatalytic dye degradation and photoexcited anti-microbial activities  
of green zinc oxide nanoparticles synthesized via Sargassum muticum extracts  
H Subramanian, M Krishnan, A Mahalingam  
RSC advances 12 (2), 985-997, 2022

- 25 Effect of swift heavy silicon ion irradiation on TiO<sub>2</sub> thin film prepared by micro arc oxidized technique  
E Kolanthai, MIA Joshy, KT Arul, P Manojkumar, N Rameshbabu, ...  
Materials Today: Proceedings 58, 932-941, 2022
- 26 Synthesis of MoO<sub>3</sub> long microsheets and fiber optic gas sensing properties  
SMMS Maricar, D Sastikumar, PR Vanga, M Ashok  
Materials Today: Proceedings 50, 2784-2790, 2022
- 27 Impact of (Pr, Dy) Co-doping at Bi Site on Optical and Multiferroic Properties of BiFeO<sub>3</sub> Ceramics Prepared by Sonochemical Method  
A Bismibanu, PR Vanga, M Alagar, T Selvalakshmi, IBS Banu, M Ashok  
Semiconductors 55 (12), 914-921, 2021
- 28 Tridax procumbens flowers derived carbon as electrode material in aqueous supercapacitor  
BR Wiston, M Ashok  
Materials Letters: X 12, 100109, 2021
- 29 Ultrasonic spray deposition of WO<sub>3</sub>-rGO thin-film composite for photocatalytic degradation of methylene blue  
K Dhivyaprasath, BR Wiston, M Preetham, S Harinee, M Ashok  
Optik 244, 167593, 2021
- 30 Quantification of wall loss defect in glass fiber reinforced polymer curved composites using lock-in thermography  
R Gomathi, M Ashok, M Menaka, B Venkatraman  
Journal of Nondestructive Evaluation 40 (2), 42, 2021
- 31 Fiber optic gas sensor response of hydrothermally synthesized nanocrystalline bismuth tungstate to methanol  
SMMS Maricar, D Sastikumar, PR Vanga, M Ashok  
Materials Letters 288, 129337, 2021
- 32 Influence of deposition time on the visible-light-driven photocatalytic activity of Cu<sub>2</sub>O thin films by reactive sputtering at room temperature  
SSG Srinivasan, B Govardhanan, M Ashok, MCS Kumar  
Materials Letters 284, 128980, 2021
- 33 BiFeO<sub>3</sub> clad modified fiber optic gas sensor for room temperature applications  
SMMS Maricar, D Sastikumar, PR Vanga, M Ashok  
Materials Today: Proceedings 39, 245-249, 2021

- 34 Microwave assisted WO<sub>3</sub> hole transport material for stable perovskite solar cell  
D Kasinathan, M Ashok  
AIP Conference Proceedings 2265 (1), 2020
- 35 An experimental study on assessing the corrosion performance of steel reinforcement for the durability of concrete  
VN Kumar, JDR Joseph, M Ashok, MPS Kumar  
IOP Conference Series: Materials Science and Engineering 989 (1), 012025, 2020
- 36 An experimental study on corrosion initiative of infused reinforcing bar in concrete  
PV Shridevi, M Ashok, JDR Joseph, A Dhanalakshmi  
IOP Conference Series: Materials Science and Engineering 989 (1), 012024, 2020
- 37 Photocatalytic removal of organic pollutants and self-cleaning performance of PES membrane incorporated sulfonated graphene oxide/ZnO nanocomposite  
G Boopathy, A Gangasalam, A Mahalingam  
Journal of Chemical Technology & Biotechnology 95 (11), 3012-3023, 2020
- 38 Visible light photocatalytic activity of metal (Mo/V/W) doped porous TiO<sub>2</sub> coating fabricated on Cp-Ti by plasma electrolytic oxidation  
P Manojkumar, E Lokeshkumar, A Saikiran, B Govardhanan, M Ashok, ...  
Journal of Alloys and Compounds 825, 154092, 2020
- 39 Significantly enhanced photo catalytic activities of PbBi<sub>2</sub>Nb<sub>2</sub>O<sub>9</sub> (Bulk)/TiO<sub>2</sub> (Nano) hetero structured composites for methylene blue dye degradation under visible light  
KV Sankar, M Ashok  
Materials Chemistry and Physics 244, 122659, 2020
- 40 Microwave assisted synthesis of ZnO-PbS heterojunction for degradation of organic pollutants under visible light  
G Mano, S Harinee, S Sridhar, M Ashok, A Viswanathan  
Scientific Reports 10 (1), 2224, 2020
- 41 Effect of preparation method on structural, morphological, optical properties and photocatalytic activities of visible light active semiconductor PbBi<sub>2</sub>Nb<sub>2</sub>O<sub>9</sub> for various organic ...  
KV Sankar, M Ashok  
Materials Science in Semiconductor Processing 106, 104773, 2020

- 42 Synthesis of bulk g-C<sub>3</sub>N<sub>4</sub>/Bi<sub>2</sub>WO<sub>6</sub> nanocomposite for effective photocatalytic reaction and for antimicrobial activity by hydrothermal method  
MH Selvi, PR Vanga, S Harinee, M Ashok  
RESEARCH ON CHEMICAL INTERMEDIATES 46 (2), 1165-1181, 2020
- 43 Flaw detection and monitoring over corroded surface through ultrasonic C-scan imaging  
VP Nikhil, BR Wiston, A Mahalingam  
Engineering Research Express, 2020
- 44 Fabrications of magnetic responsive hydroxyapatite platform: In vitro release of chemo drug for cancer therapy  
K Sangeetha, G Vidhya, EK Girija, M Ashok  
Materials Today: Proceedings 26, 3579-3582, 2020
- 45 Cotton candy driven chitosan and gelatin coated poly (styrene-co-acrylonitrile) microfibers for anti-microbial wound dressing applications  
M Ashok, S Deepika, P Sowndharya, K Muthukumar  
Materials Research Express 6 (12), 125339, 2019
- 46 Facile synthesis of hierarchical microsphere-like layered double hydroxide for non-enzymatic selective detection of dopamine  
P Prabhakaran, A Mahalingam  
Materials Research Express 6 (12), 125033, 2019
- 47 Microwave-assisted synthesis of cobalt-manganese oxide for supercapacitor electrodes  
BR Wiston, M Ashok  
Materials Science in Semiconductor Processing 103, 104607, 2019
- 48 Biocompatible nanoparticles with enhanced photocatalytic and anti-microfouling potential  
S Harinee, K Muthukumar, HU Dahms, M Koperuncholan, S Vignesh, ...  
International Biodeterioration & Biodegradation 145, 104790, 2019
- 49 Effect of oxygen partial pressure on the tuning of copper oxide thin films by reactive sputtering for solar light driven photocatalysis  
SSG Srinivasan, B Govardhanan, P Aabel, M Ashok, MCS Kumar  
Solar Energy 187, 368-378, 2019
- 50 Electrochemical activity of nickel-iron layered double hydroxide synthesized via different synthesis strategies  
BR Wiston, M Ashok  
AIP Conference Proceedings 2115 (1), 2019

- 51 Synthesis of carbon dots/layered double hydroxide composites for non-enzymatic electrochemical sensing of hydrogen peroxide  
P Prabhakaran, M Ashok  
AIP Conference Proceedings 2115 (1), 2019
- 52 UV-light photocatalytic activity of biocompatible nanoparticles provide multiple effects  
S Harinee, K Muthukumar, A Abirami, K Amrutha, K Dhivyaprasath, ...  
Advanced Materials Proceedings 4 (3), 115-118, 2019
- 53 Development of multifunctional cobalt ferrite/hydroxyapatite nanocomposites by microwave assisted wet precipitation method: a promising platform for synergistic chemo ...  
K Sangeetha, M Ashok, EK Girija  
Ceramics International 45 (10), 12860-12869, 2019
- 54 Electrochemical performance of hydrothermally synthesized flower-like  $\alpha$ -nickel hydroxide  
BR Wiston, M Ashok  
Vacuum 160, 12-17, 2019
- 55 Electrochemical performance of nickel hydroxide nanopetals for supercapacitor electrodes  
BR Wiston, M Ashok  
Materials Letters 235, 76-79, 2019
- 56 Photocatalytic application of Bi<sub>2</sub>WO<sub>6</sub> nanoplates structure for effective degradation of methylene blue  
MH Selvi, PR Vanga, M Ashok  
Optik 173, 227-234, 2018
- 57 Investigations on structural, optical and multiferroic properties of bismuth ferrite nanoparticles synthesized by sonochemical method  
A Bismibanu, PR Vanga, T Selvalakshmi, M Ashok, M Alagar  
Journal of Electronic Materials 47, 6373-6377, 2018
- 58 Strontium and ciprofloxacin modified hydroxyapatites as functional grafts for bone prostheses  
K Sangeetha, M Ashok, EK Girija, G Vidhya, G Vasugi  
Ceramics International 44 (12), 13782-13789, 2018

59

Green synthesis of CeO<sub>2</sub>-TiO<sub>2</sub> compound using \*Cleome chelidonii\* leaf extract for excellent photocatalytic activity

S Senthilkumar, K Lellala, M Ashok, A Priyadharsan, C Sanjeeviraja, ...

Journal of Materials Science: Materials in Electronics 29, 14022-14030, 2018

60

Novel developments in dysprosium doped bismuth phosphate

G Lakshmi Narasimhan G, Selvan, PR Vanga, M Ashok

Optik-International Journal for Light and Electron Optics 156, 536-541, 2018

61

Biogenic corrosion inhibitor on mild steel protection in concentrated HCl medium

Muthukumar Krishnan, Harinee Subramanian,

Hans-Uwe Dahms, Vignesh Sivanandham, Palanichamy Seeni,

Subramanian Gopalan, Arthur James Rathinam, Ashok Mahalingam

Nature Scientific Reports 8, 2609, 2018

62

Phytosynthesis and Characterization of TiO<sub>2</sub> Nanoparticles using \*Diospyros ebenum\* Leaf Extract and their Antibacterial and Photocatalytic Degradation of Crystal ...

S Senthilkumar, M Ashok, L Kashinath, C Sanjeeviraja, A Rajendran

Smart Science 6 (1), 1-9, 2018

63

Influence of Bicationic and Catanionic Surfactants Over the Morphology of Mesoporous Nanohydroxyapatite

PMSLS M. Ashok, Periyayya Uthirakumar, T. Balasubramanian

Journal of Nanoscience and Nanotechnology 18 (10), 7064-7071, 2018

64

Magnetic Properties and Photocatalytic Behavior of Co Co-doped BiFeO<sub>3</sub>:Er

PR Vanga, RV Mangalaraja, M Ashok

Journal of Superconductivity and Novel Magnetism 31, 89-97, 2018

65

Fabrication of duplex coatings on biodegradable AZ31 magnesium alloy by integrating cerium conversion (CC) and plasma electrolytic oxidation (PEO) processes

S Hariprasad, S Gowtham, S Arun, M Ashok, N Rameshbabu

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