

ACADEMIC PROFILE OF FACULTY MEMBER

1. **Name:** Dr. Anirban Dandapat
2. **Designation:** Assistant Professor (INSPIRE Faculty)
3. **Qualification: Ph.D.** (CSIR-CGCRI & Jadavpur University, Kolkata);
Post-Doctoral Research (Nanyang Technological University, Singapore)
Post-Doctoral Research (The Hebrew University of Jerusalem, Israel)
4. **Area of Specialization/Research field:** Development of Nanomaterials for Catalysis, Sensing and Environmental Purification
5. **Awards/Recognitions:**
 - Selected for DST-INSPIRE Faculty Award held on January, 2016.
 - PBC Postdoctoral Fellowship 2015(Most prestigious postdoctoral fellowship of Israel)
 - Chairing a session at the International Conference on Advanced Polymeric Materials (ICAPM 2017) held during 7-9 April 2017at Mahatma Gandhi University, Kottayam, Kerala, India.
 - Received Best Poster Award in the International Conference on Nano Science and Technology (ICONSAT 2012) during January 20–23, 2012 at ARCI, Hyderabad
 - Received Best Poster Award in National Review and Coordination of NANO Mission Council, DST held on February 25-27, 2011 at IIT Delhi
 - Received Best Poster Award in 20th AGM of Materials Research Society of India (MRSI) held on 10-12th February, 2009 at SINP, Kolkata
 - Qualified CSIR-NET (2007) for Junior Research Fellowship (JRF) and eligibility for lectureship
 - Qualified Graduate Aptitude Test in Engineering 2007 (GATE), Indian Institute of Technology, India

Awards to research scholars: Ph.D. Scholar Ms. Deepika Pancholi received Young Scientist Award at International conference, ICEFN & SEM-2019, Organized by Kumaun University, Nainital (April 2019).

6. Number of Research projects:

i) On-going

S/ N	Title of the project	Funding Agency	As PI/ Co-PI	Amount	Date of Commencement	Expected date of completion
1	Development of Nanocomposites as Photocatalyst for Sun-Light Driven Water Treatment and Water Splitting	DST, Govt. of India	PI	35 Lakh	Nov-2016	Oct-2021

2.	A Multidimensional Remediation and Innovative Tailoring of Materialistic-waste (AMRITAM): An Innovative Approach for the Collection, Segregation and Up-cyclization of Solid Waste	GBPNIHESD under National Mission on Himalayan Studies, Ministry of Environment, Forest & Climate Change, Govt. of India	Co-PI	~350 Lakh	Oct-2019	Sep-2022
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7. Number of Ph.Ds awarded : NIL

8. Number of candidates working for Ph.D. award: 03

9. Publications:

i) Book-chapters (* represents corresponding author)

S/N	Co-Author/s	Title	Publisher	Year of publication
1.	Suresh Kumar, Megha Pant, Veena Pande and Anirban Dandapat*	Endohytic Fungi: A Potent Biofactory to Produce Biologically-Active Natural Products	NOVA Science Publishers	2020
2.	Megha Pant, Deepika Pancholi, Veena Pande, Anirban Dandapat*,	Immunochromatographic Strip Based Sensor for the Detection of Water Pollutants.	Springer	2019
3.	Manoj Karakoti, Sandeep Pandey, Anirban Dandapat, Suman Mahendia, N. G. Sahoo,	Polyethylenedioxythiophene (PEDOT) based supercapacitor applications	CRC Press	2019

ii) **Research Articles published:**

Papers published in International SCI Journals: (* represents corresponding author)

No. of Paper: 29; Total Citations: 715; h-index: 15 (Google scholar)

- Narendra S Bisht, Deepika Pancholi, Nanda G. Sahoo, Anand B. Melkani, SPS Mehta, **Anirban Dandapat***, Effect of Ag–Fe–Cu tri-metal loading in bismuth oxybromide to develop a novel nanocomposite for the sunlight driven photocatalytic oxidation of alcohols, *Catalysis Science & Technology*, **2019**, 9, 3923-3932. **(IF: 5.726)**
- Anirban Dandapat***, Inna Horovitz, Hani Gnayem, Yoel Sasson, Dror Avisar, Thomas Luxbacher, and Hadas Mamane, "Solar Photocatalytic Degradation of Trace Organic Pollutants in Water by Bi(0)-Doped Bismuth Oxyhalide Thin Films" *ACS Omega*, **2018**, 3 (9), 10858–10865. **(IF: 2.584)**

3. Abdul R. Ferhan, Youju Huang, **Anirban Dandapat**, and Dong-Hwan Kim, "Surface-floating gold nanorod super-aggregates with macroscopic uniformity" *Nano Research*, **2018**, *11*, 2379–2391. (IF: **8.515**)
4. **Anirban Dandapat**,* Youju Huang, Hani Gnyem and Yoel Sasson
"Bismuth Oxyhalide Induced Growth of Pt Nanoparticles within Mesoporous Alumina Films and their Use as Reusable Catalyst for Chromium(VI) Reduction" *ChemistrySelect*, **2017**, *2*, 620-623. (IF: **1.716**)
5. Jingyun Wang, Lei Zhang, Youju Huang, **Anirban Dandapat**, Liwei Dai, Ganggang Zhang, Xuefei Lu, Jiawei Zhang, Weihua Lai and Tao Chen
"Hollow Au-Ag Nanoparticles Labeled Immunochromatography Strip for Highly Sensitive Detection of Clenbuterol" *Scientific Report*, **2017**, *7*, 41419. (IF: **4.525**)
6. **Anirban Dandapat**,* Hani Gnyem and Yoel Sasson
"Fabrication of $\text{BiOCl}_x\text{Br}_{1-x}$ /Alumina composite films with highly exposed {001} facets and their superior photocatalytic activities" *Chemical Communication*, **2016**, *52*, 2161-2164. (IF: **6.164**)
7. Liming Chen,‡ **Anirban Dandapat**,‡ Youju Huang, Liping Song, Lei Zhang, Jiawei Zhang, Yoel Sasson, Linxi Hou and Tao Chen
"Heterogemini surfactant assisted synthesis of monodisperse icosahedral gold nanocrystals and their applications in electrochemical biosensing" *RSC Advances*, **2016**, *6*, 31301-31307 (‡ represents equal contribution). (IF: **3.049**)
8. Hani Gnyem, **Anirban Dandapat*** and Yoel Sasson*
"Development of hybrid $\text{BiOCl}_x\text{Br}_{1-x}$ embedded alumina films and their applications as highly efficient visible light driven photocatalytic reactor", *Chemistry a European Journal* **2016**, *22*, 370–375. (IF: **5.160**)
9. Yingzhou Tao,‡ **Anirban Dandapat**,‡ Youju Huang, Yoel Sasson, Zhenyu Lin, Jiawei Zhang, Longhua Guo and Tao Chen
"Pd-on-Au Supra-nanostructures Decorated Graphene Oxide: An Advanced Electrocatalyst for Fuel Cell Applications" *Langmuir* **2016**, *32*, 8557-8564 (‡ represents equal contribution). (IF: **3.683**)
10. Maria Hitrik, **Anirban Dandapat** and Yoel Sasson
"A new mechanism for allylic alcohol isomerization involving ruthenium nanoparticles as 'true catalyst' generated through the self-assemblies of supramolecular triruthenium clusters", *RSC Advances* **2016**, *6*, 68041-68048. (IF: **3.049**)
11. Xuefei Lu,‡ **Anirban Dandapat**,‡ Youju Huang, Lei Zhang, Yun Rong, Liwei Dai, Yoel Sasson, Jiawei Zhang, and Tao Chen
"Tris Base Assisted Synthesis of Monodispersed Citrate-capped Gold Nanospheres with Tunable Size", *RSC Advances* **2016**, *6*, 60916-60921. (‡ represents equal contribution) (IF: **3.049**)
12. Yun Rong, ‡ **Anirban Dandapat**, ‡ Youju Huang, Yoel Sasson, Lei Zhang, Liwei Dai, Jiawei Zhang, Zhiyong Guo and Tao Chen
"Spatially-controlled Growth of Platinum on Gold Nanorods with Tailoring Plasmonic and Catalytic Properties", *RSC Advances*, **2016**, *6*, 10713-10718. (‡ represents equal contribution) (IF: **3.049**)

13. Youju Huang, Ferhan A. Rahim, **Anirban Dandapat**, Chong Seung Yoon, EunChul Cho and Donghwan Kim
“A Strategy for the Formation of Gold-Palladium Suprananoparticles from Gold Nanoparticles of Various Shapes and Their Application to a High-Performance H₂O₂ Sensing” *Journal of Physical Chemistry C*, **2015**, 119, 26164–26170. (IF: **4.309**)
14. **Anirban Dandapat**, Tae Kyung Lee, Yi Ming Zhang, Sang Kyu Kwak, EunChul Cho and Donghwan Kim
“Attomolar Level Detection of Raman Molecules with Hierarchical Silver Nanostructures Including Tiny Nanoparticles between Nanosized Gaps Generated in Silver Petals” *ACS Applied Materials & Interfaces*, **2015**, 7, 14793–14800. (IF: **8.456**)
15. **Anirban Dandapat**, Ferhan A. Rahim, Lichan Chen and Donghwan Kim
“Single-step Synthesis of Various Distinct Hierarchical Ag Structures” *RSC Advances*, **2015**, 5, 84257–84262. (IF: **3.049**)
16. Lichan Chen, Xiaoting Zeng, **Anirban Dandapat**, Yuwu Chi and Donghwan Kim
“Installing Logic gates in Permeability Controllable Polyelectrolyte-Carbon Nitride Films for Detecting Proteases and Nucleases”, *Analytical Chemistry* **2015**, 87, 8851–8857. (IF: **6.35**)
17. Youju Huang ‡, **Anirban Dandapat** ‡, Donghwan Kim
“Covalently-capped seed-mediated growth: a unique approach towards hierarchical growth of gold nanocrystals”, *Nanoscale*, **2014**, 6, 6478–6481. (‡represent equal contribution) (IF: **6.970**)
18. Youju Huang, F. A. Rahim, Gao Yi, **Anirban Dandapat** and Donghwan Kim
“High-yield synthesis of triangular gold nanoplates with improved shape uniformity, tunable edge length and thickness” *Nanoscale*, 2014, 6, 6496–6500. (IF: **6.970**)
19. Jony Saha, Anuradha Mitra, **Anirban Dandapat** and Goutam De
“TiO₂ nanoparticles doped SiO₂ films with ordered mesopore channels: a catalytic nanoreactor” *Dalton Transactions* 2014, 43, 5221–5229. (IF: **4.052**)
20. **Anirban Dandapat**, Anuradha Mitra, Prateek K. Gautam and Goutam De
“A facile synthesis of Pt nanoflowers composed of ordered array of nanoparticles” *Nanomaterials and Nanotechnology*, **2013**, DOI: 10.5772/56868. (Invited Article) (IF: **1.6**)
21. **Anirban Dandapat**, Sourav Pramanik, Sandip Bysakh and Goutam De
“Boat-like Au nanoparticles embedded mesoporous γ -Al₂O₃ film: an efficient SERS substrate”, *Journal of Nanoparticles Research* **2013**, 15, 1–10. (IF: **2.009**)
22. Abhijit Mandal, **Anirban Dandapat** and Goutam De
“Magic-sized ZnS quantum dots as a highly sensitive and selective fluorescence sensor probe for Ag⁺ ion”, *Analyst*, **2012**, 137, 765–772. (IF: **4.019**)
23. **Anirban Dandapat** and Goutam De
“Host Mediated Synthesis of Cobalt Aluminate/ γ -Alumina Nanoflakes: a Dispersible Composite Pigment with High Catalytic Activities”, *ACS Applied Materials & Interfaces* **2012**, 4, 228–234. (IF: **8.456**)
24. Jony Saha, **Anirban Dandapat** and Goutam De
“Transformation of Pd \rightarrow PdH_{0.7} nanoparticles inside the mesoporous Zr-modified SiO₂ films in ambient conditions”, *Journal of Materials Chemistry* **2011**, 21, 11482–11485. (IF: **6.626**)

25. **Anirban Dandapat**, Debrina Jana and Goutam De
 “Pd nanoparticles supported mesoporous γ - Al_2O_3 film as a reusable catalyst for reduction of toxic Cr^{VI} to Cr^{III} in aqueous solution”, *Applied Catalysis A: General* **2011**, 396, 34-39. (IF: 4.63)
26. Debrina Jana, **Anirban Dandapat** and Goutam De
 “Anisotropic Gold Nanoparticle Doped Mesoporous Boehmite Films and Their Use as Reusable Catalysts in Electron Transfer Reactions”, *Langmuir* **2010**, 26, 12177-12184. (IF: 3.683)
27. **Anirban Dandapat** and Goutam De
 “Nanorods assembly of Mesoporous Boehmite Film on Glass: An Efficient Catalyst for Permanganate Reduction to MnO_2 Nanoparticles”, *Journal of Materials Chemistry* **2010**, 20, 3890-3894. (IF: 6.626)
28. Debrina Jana, **Anirban Danadapat** and Goutam De
 “Au@Pd Core-Shell Nanoparticle Incorporated Alumina Sols and Coatings: Transformation of Au@Pd to Au-Pd Alloy Nanoparticles”, *Journal of Physical Chemistry C* **2009**, 113, 9101-9107. (IF: 4.309)
29. **Anirban Dandapat**, Debrina Jana and Goutam De
 “Synthesis of Thick Mesoporous γ -Alumina Films, Loading of Pt Nanoparticles, and Use of the Composite Film as a Reusable Catalyst”, *ACS Applied Materials & Interfaces* **2009**, 1, 833-840. (IF: 8.456)

iii) Abstract Published in National/International Conferences:

- 1) Invited lecture on “Porous Inorganic Nanostructures: Synthesis and Applications” at the national conference on *Recent Advances in Nano Structured Powders Films and Devices* (NFD-2017) organized by Institute of Nano Science and Technology (INST), Mohali held during 15-16 September, 2017
- 2) Invited lecture on “Development of Mesoporous Nanocomposite Films as Reusable Catalyst” at the *International Conference on Advanced Polymeric Materials* (ICAPM 2017) held during 7-9 April 2017 at Mahatma Gandhi University, Kottayam, Kerala, India.
- 3) Invited lecture on "Fabrication of Alumina Based Nanocomposite Films as Reusable Catalyst" at the International conference on Energy, Functional Materials and Nanotechnology (ICEFN-2016) held during 27th to 29th, March, 2016 at Kumaun University, Uttarakhand, India
- 4) Oral presentation entitled "Development of hybrid $\text{BiOCl}_x\text{Br}_{1-x}$ embedded alumina films and their applications as highly efficient visible light driven photocatalytic reactor" at The 17th Israel Materials Engineering Conference held on 1-2 February, 2016 at Bar-Ilan University, Israel.
- 5) Invited lecture entitled "Nanocomposite thin films as reusable catalysts" at the symposium 'Catalysis and Process Development for the 21 Century' held on 18th January at the Hebrew University of Jerusalem, Israel.

- 6) Poster paper entitled “Host Mediated Synthesis of Cobalt Aluminate/ γ -Alumina Nanocomposites with High Catalytic Activities” in the International Conference on Nano Science and Technology (ICONSAT 2012) during January 20–23, 2012 organized by ARCI, Hyderabad, India.
- 7) Poster paper entitled “Mesoporous Alumina Films Doped with Metal Nanoparticles as Reusable Catalysts” in the National Review and Coordination meeting (NSNT-2011) of NANO Mission Council, DST during February 25-27, 2011 at IIT Delhi, India.
- 8) Poster paper entitled “Pd nanoparticles incorporated mesoporous γ -alumina films for catalytic reduction of CrVI to CrIII in aqueous solution” in the International Conference on Nano Science and Technology (ICONSAT 2010) during February 17–20, 2010 at IIT Bombay, India.
- 9) Poster paper entitled “Nanorods assembly of mesoporous boehmite films and their use as catalysts for permanganate reduction to MnO₂ nanoparticles” in the International Symposium on Advances in Nanomaterials (ANM-2010) during December 06-07, 2010 at CSIR-CGCRI, Kolkata, India.
- 10) Poster paper entitled “Au and Pd Doped Mesoporous Alumina Films and their Applications in Catalysis” in the Modern Trends in Inorganic Chemistry (MTIC-XIII) held on December 07-10, 2009 at IISC, Bangalore, India.
- 11) Poster paper entitled “Synthesis of Mesoporous Alumina Films Doped with Pt Nanoparticles for Catalytic Applications” in the National Review and Coordination meeting of NANO Mission Council, DST held on 12-14th March, 2009 at SNBCBS, Kolkata, India.
- 12) Poster paper entitled “Synthesis Au@Pd Nanoparticles in Alumina Sols” in the 20th AGM of Materials Research Society of India (MRSI) held on 10-12th February, 2009 at SINP, Kolkata, India.

10. Conference/Seminar organized:

S/N	Status as organizer	Title of the conference/seminar	Year and dates
1.	Member, Organizing Committee	2nd International Conference On Energy, Functional Materials and Nanotechnology & Sustainable Environment Management	24-26 th May, 2019

11. Academic/Administrative positions held:

12. Membership to professional Organization/Associations:

13. Any other Information:

- Number of M. Sc. Thesis supervised: **Five**
- Served as Reviewer in several international reputed journals (e.g. Chemical Communications, Journal of Materials Chemistry A, ACS Omega, RSC Advances, Physical Chemistry Chemical Physics, Colloids and Surfaces A etc.)

Date: 12th June, 2020

(Anirban Dandapat)