

## Kumaun University, Nainital

### Curriculum Vitae

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Name : Nanda Gopal Sahoo, FRSC  
Designation : Professor  
Director, Research and Development Cell  
In-charge  
PRS-Nanoscience and Nanotechnology Centre  
Department : Department of Chemistry, Kumaun University

#### Contact Information

Email Address : ngsahoo@kunainital.ac.in

Mobile No : 9456730659

LinkedIn Profile (Optional) : linkedin.com/in/nandagopal-sahoo-11821a38

ORCID ID : <https://orcid.org/0000-0001-8406-6610>

Scopus ID : 7004444011

Vidwan ID :

#### Educational Qualification

Degree	University	Subjects	Year
Ph.D	Indian Institute of Technology, Kharagpur, West Bengal	Materials Science	2004
M.Sc	Vidyasagar University, West Bengal	Physical Chemistry	1997
B.Sc	Vidyasagar University, West Bengal	Chemistry (Hons.)	1994

#### Work Experience

Position	Department	University/Organization	Year
Professor	Department of Chemistry	Kumaun University	July 2016-present
Associate Professor	Department of Chemistry	Kumaun University	July 2013-July 2016
Scientist II	Institute of Materials Research and Engineering (IMRE),	Institute of Materials Research and Engineering (IMRE),	Sept. 2012-July 2013

	Singapore	Singapore	
<b>Scientist</b>	Energy Research Institute	Energy Research Institute, Nanyang Technological University, Singapore.	Aug. 2011- Aug. 2012
<b>LKY Research Fellow</b>	School of Mechanical and Aerospace Engineering	Nanyang Technological University, Singapore.	Aug. 2008- July 2011
<b>Postdoctoral Research Fellow</b>	School of Mechanical and Aerospace Engineering	Nanyang Technological University, Singapore	Oct. 2007- July 2008
<b>Postdoctoral Research Fellow</b>	School of Chemical and Biomedical Engineering	Nanyang Technological University, Singapore	July 2006- Sep 2007
<b>Postdoctoral Research Fellow</b>	Artificial Muscle Research Center	Konkuk University, South Korea	Jan. 2005 – July 2006

### Administrative Responsibilities

<b>Position</b>	<b>Nature of responsibility</b>	<b>University/Organization</b>	<b>Year</b>
<b>Director</b>	Research and Development Cell, Kumaun University	Kumaun University	2023- Present
<b>Member</b>	Intellectual Property Right, Kumaun University	Kumaun University	2020-Present
<b>Convener and Co-Convener</b>	Admission Committee, B.Sc.	Kumaun University	2016-2020
<b>Co-Ordinator</b>	Ph.D. Coursework	Kumaun University	2019
<b>Member</b>	Executive Council, Kumaun University.	Kumaun University	2016-2017

### Research Interests

- Solid waste management
- Water Technology
- Graphene based materials for supercapacitor, fuel and solar cells applications
- Drug delivery
- High performance CNT/polymer or graphene/polymer nanocomposites
- Fabrication and Characterization of Micro/nano particles for pharmaceutical applications.

- Hydrogen energy

**Publications (start from recent publications)**

a) Research Papers (**add row if required**)

Authors name	Title of the paper	Journal, vol, page no	Year
C. Tewari, M. Pathak, G.Tatrari, S. Kumar, S. Dhali, B. Saha,P. Mukhopadhyay, Y. C. Jung*, <b>N. G. Sahoo*</b>	Waste plastics derived reduced graphene oxide-based nanocomposite with Fe <sub>3</sub> O <sub>4</sub> for water purification and supercapacitor applications	Journal of Industrial and Engineering Chemistry 130, 346-356	2024
R.Jangra, P.Mahendia, M.Karakoti, <b>N.G. Sahoo</b> , A. Srivastava, O.P. Sinha,T. D. Clemons, U. Deshpande, S.Mahendia	ZnCl <sub>2</sub> -assisted conversion of nitrogen-containing biomass carbon from marigold flower: Toward highly porous activated nitrogen-doped carbon for low ESR and enhanced energy density supercapacitors	Journal of Energy Storage 75, 109728	2024
M. Pathak, D. Bhatt, R.C. Bhatt, B.S. Bohra, G.Tatrari, S. Rana, M.C. Arya <b>N.G. Sahoo*</b>	High Energy Density Supercapacitors: An Overview of Efficient Electrode Materials, Electrolytes, Design, and Fabrication	The Chemical Record, 24(1), e202300236	2024
S. Dhali, M.Karakoti, G.Tatrari, S. Pandey, K. S. Rawat, C. Tewari, B. Santhibhushan, Y. C. Jung, A. Srivastava, <b>N. G. Sahoo*</b>	Waste Plastic Derived Nitrogen-Doped Reduced Graphene Oxide Decorated Core-Shell Nano-Structured Metal Catalyst (WpNrGO_Pd_Ru) for Proton Exchange Membrane Fuel Cell	Materials Advances,	2024
C. Tewari, G.Tatrari, S. Kumar, M. Pathak, K.S. Rawat, Y.N. Kim, B. Saha,Y,C, Jung, P. Mukhopadhyay, <b>N.G. Sahoo*</b>	Can graphene-based composites and membranes solve current water purification challenges-a comprehensive review	Desalination, 567, 116952	2023
G.Tatrari, C. Tewari, M. Pathak, D. Bhatt, M.Karakoti, S. Pandey, D.S. Uniyal, F.U. Shah, <b>N.G. Sahoo*</b>	3D-graphene hydrogel and tungsten trioxide-MnO <sub>2</sub> composite for ultra-high-capacity asymmetric supercapacitors: A comparative study	Journal of Energy Storage, 68, 107830	2023
B.S. Bohra, P. Singh, A. Rana, H. Sharma, T. Arya, M. Pathak, A.Chaurasia, <b>N.G. Sahoo*</b>	Specific functionalized graphene oxide-based vitrimer epoxy nanocomposites for self-healing applications	Composites Science and Technology, 241, 110143	2023
P.S. Sahu, R.P. Verma, A.H. Dhabade, C. Tewari, <b>N. G. Sahoo</b> , B.	A novel, efficient and economical alternative for the removal of toxic organic, inorganic and pathogenic	Environmental Pollution, 328, 121201	2023

Saha	water pollutants using GO-modified PU granular composite		
A. Pandey, H. Kesarwani, C. Tewari, A. Saxena, S. Sharma, <b>N. G. Sahoo</b>	Waste Plastic Derived Reduced Graphene Oxide as A Potential Additive for the Surfactant Polymer Flooding: A Sustainable Solution	Journal of Environmental Chemical Engineering, 11, 109661	2023
S Pandey, M Karakoti, D Bhardwaj, G Tatrari, R Sharma, L Pandey, M.-J. Lee, <b>N.G. Sahoo*</b>	Recent advances in carbon-based materials for high-performance perovskite solar cells: gaps, challenges and fulfilment	Nanoscale Advances, 5, 1492-1526	2023
M. Matiyani, A. Rana, N. M. Pal, <b>N. G. Sahoo*</b>	Development of multi-functionalized graphene oxide based nanocarrier for the delivery of poorly water-soluble anticancer drugs	Journal of Drug Delivery Science and Technology, 83, 104412	2023
G.Tatrari, C. Tewari, M. Pathak, D. Bhatt, M. Solanki, F. U. Shah, <b>N. G. Sahoo*</b>	Coconut-husk Derived Graphene for Supercapacitor Applications: Comparative Analysis of Polymer Gel and Aqueous Electrolytes	Materials Advances, 4, 3310-3322	2023
H. Sharma, A. Kumar, S. Rana, <b>N.G. Sahoo</b> , M. Jamil, R. Kumar, S. Sharma, C. Li, A. Kumar, S. M Eldin, M. Abbas	Critical Review on Advancements on the Fiber-Reinforced Composites: Role of Fiber/Matrix Modification on the Performance of the Fibrous Composites	Journal of Materials Research and Technology, 26, 2975-3002	2023
T. Arya, B.S. Bohra, C. Tewari, S. Dhali, V Dikshit, S. Rana, Y.C. Jung*, <b>N.G. Sahoo*</b>	Influence of bio-resource-derived graphene oxide on the mechanical and thermal properties of poly (vinyl alcohol) nanocomposites	Polymer Composites, 45(1), 695-70	2023
A. Rana, S. Pandey, M. Matiyani, H. Tiwari, P. B. Negi, S. Dokwal, <b>N.G. Sahoo*</b>	Pink photoluminescent nitrogen-doped graphene oxide nanosheets from Juniperus squamata roots and their cytotoxic potential against human cervical cancer cells (HeLa cells) and Plasmodium falciparum an agent of malaria: A green approach	Materials Chemistry and Physics, 307, 128119	2023
P. S. Sahu, R. P. Verma, C. Tewari, <b>N. G. Sahoo</b> , B. Saha	Facile fabrication and application of highly efficient reduced graphene oxide (rGO)-wrapped 3D foam for the removal of organic and inorganic water pollutants	Environmental Science and Pollution Research, 30(40), 93054-93069	2023
S. Pandey, M. Pathak, M.Karakoti, G.Tatrari, B.Shantibhusan, P.S.Dhapola, S. Dhali, A. Srivastava, S. Rana, <b>N. G. Sahoo*</b>	Binder-Free Supercapacitors Based on Thin Films of MWCNT/GO Nanohybrids: Computational and Experimental Analysis	Catalysts, 13, 235	2023
S. Murugaboopathy, D. Gunasekaran, C. Kumar, C. Tewari, <b>N.G. Sahoo</b>	Development of Mesoporous Carbon Composites with Waste Plastics Derived Graphene and MnO <sub>2</sub> for	Journal of The Electrochemical Society, 170 (4),	2023

	Supercapacitor Applications	040518	
RVSP Sanka, S. Rana, P. Singh, A.K. Mishra, P. Kumar, M. Singh, <b>N.G. Sahoo</b> , W. H. Binder, G. J. Yun, C. Park	Self-healing nanocomposites via N-doped GO promoted “click chemistry	Soft Matter, 19, 98-105	2023
M. Matiyani, A. Rana, M. Pal, S. Dokwal, <b>N. G. Sahoo*</b>	Polyamidoamine dendrimer decorated graphene oxide as a pH-sensitive nanocarrier for the delivery of hydrophobic anticancer drug quercetin: a remedy for breast cancer	Journal of Pharmacy and Pharmacology, 75, 859	2023
P. Ponmani, J. Bahadur, C. Tewari, D.K. Gupta, U. Kalita, P.Jegadeesan, T.R. Ravindran, A. Alex, A. Das, <b>N.G. Sahoo</b> , M. Sivanantham, S. Choudhury	Polyaniline modified waste-derived graphene/sulfur nanocomposite cathode for lithium–sulfur batteries	Journal of Polymer Science, 61(18), 2149-2162	2023
M. Pathak, G.Tatrari, M.Karakoti, S. Pandey, P.S. Sahu, B. Saha, <b>N.G. Sahoo*</b>	Few layer graphene nanosheets from kinnow peel waste for high-performance supercapacitors: A comparative study with three different electrolytes	Journal of Energy Storage 55, 105729	2022
S. Kumar, C. Tewari, <b>N. G. Sahoo</b> , Ligy Philip*	Mechanistic insights into carbocatalyzed per-sulfate treatment for simultaneous degradation of cationic and anionic dye in multicomponent mixture using plastic waste derived carbon	Journal of Hazardous Materials, 435, 128956	2022
Y. Wang, T. Karmakar, N. Ghosh, S. Basak, <b>N.G. Sahoo*</b>	Targeting mangiferin loaded N-succinyl chitosan-alginate grafted nanoparticles against atherosclerosis- a case study against diabetes mediated hyperlipidemia in rat	Food Chemistry, 370, 131376	2022
G Tatrari, C Tewari, M Pathak, M Karakoti, BS Bohra, S Pandey, B. SanthiBhushan, A. Srivastava, S. Rana, <b>N.G. Sahoo*</b>	Bulk production of zinc doped reduced graphene oxide from tire waste for supercapacitor application: Computation and experimental analysis	Journal of Energy Storage, 53, 105098	2022
N.S. Bisht, A.H. Tripathi, M. Pant, S.K. Upadhyay, <b>N.G. Sahoo</b> , S.P.S. Mehta, A. Dandapat	A Facile Synthesis of Palladium Nanoparticles Decorated Bismuth Oxybromide Nanostructures with Exceptional Photo-antimicrobial Activities	Colloids and Surfaces B: Biointerfaces, 217, 112640	2022
P.S. Sahu, R.P. Verma, C. Tewari, <b>N.G. Sahoo</b> , B. Saha	Environmental application of amine functionalised magnetite nanoparticles grafted graphene oxide chelants	Environmental Science and Pollution Research, 29, 86485–86498	2022
B.S. Bohra, N. Pandey,	Effect of Terephthalic acid	Soft Matter, 18, 7112-	2022

S. Pande, S. Rana, <b>N.G. Sahoo*</b>	Functionalized Graphene oxide on molecular interaction, mechanical and thermal properties of Hytrel Polymer	7122	
S Rana, M Solanki, <b>N.G. Sahoo</b> , B Krishnakumar	Bio-Vitrimers for Sustainable Circular Bio-Economy	Polymers 14 (20), 4338	2022
M. Karakoti, G. Tatrari, S. Pandey, P. S. Dhapola, R. Jangra, S. Mahendia, M. Pathak, S. Dhali, P.K. Singh <b>N.G. Sahoo*</b>	Tailoring the electrochemical performance of PEDOT: PSS via incorporation of spray dryer processed graphene oxide	International Journal of Energy Research, 46, 18711-18726	2022
N. Pandey, B. S. Bohra, H. Tiwari, M. Pal, P.Bhakuni Negi, A.Dandpat, SPS Mehta, <b>N. G. Sahoo*</b>	Development of biodegradable chitosan/graphene oxide nanocomposite via spray drying method for drug loading and delivery application	Journal of Drug Delivery Science and Technology, 74,103555	2022
Anita Rana, Monika Matiyani, Chetna Tewari,PushpaBhakuniN egi, Mahesh Chandra Arya, Mintu Pal, <b>Nanda Gopal Sahoo*</b>	Functionalized Graphene Oxide Based Nanocarrier for Enhanced Cytotoxicity of <i>Juniperus squamata</i> Essential Oil against Breast Cancer Cells	Journal of Drug Delivery Science and Technology, 72, 103370	2022
B.S. Bohra, N. Pandey, G. Tatrari, S. Rana, <b>N.G. Sahoo*</b>	The Effects of Functionalized Graphene Oxide on Thermal and Mechanical Properties of Liquid Crystalline Polymer	Soft Matter, 18, 3981	2022
Pawan Singh Dhapola, Abhimanyu Singh, Manoj Karakoti, Manoj K. Singh, SubhrajitKonwar, Sushil Dohare, Aysh Y. Madkhli, I. M. Noor, Pramod K. Singh, <b>Nanda Gopal Sahoo*</b>	Synthesis of porous carbon from a PVC polymer and its application in supercapacitors	Materials Advances, 3, 4947-4953	2022
Sunil Dhali, Sandeep Pandey, Anirban Dandapat, Tapan Sahoo, Prateekshya Suman Sahu, <b>Nanda Gopal Sahoo*</b>	Pd-Fe <sub>2</sub> O <sub>3</sub> decorated nitrogen-doped reduced graphene oxide/CNT nanohybrids electrocatalyst for proton exchange membrane fuel cell	Diamond and Related Materials, 126, 109115	2022
M. Matiyani, A. Rana, M. Pal, S. Rana, A. B. Melkani, <b>N. G. Sahoo*</b>	Polymer grafted magnetic graphene oxide as a potential nanocarrier for pH-responsive delivery of sparingly soluble quercetin against breast cancer cells	RSC Advances, 12, 2574	2022
M. Karakoti, S. Pandey, G. Tatrari, P. S.	An Approach towards Waste to Energy from Effective Conversion of	Materials Advances, 3, 2146	2022

Dhapola, R. Jangra, S. Dhali, M. Pathak, S. Mahendia, <b>N.G. Sahoo*</b>	Solid Waste Plastics into Graphene Nanosheets by Using Different Catalysts for High Performance Supercapacitors: A comparative study		
Chetna Tewari, Gaurav Tatrari, Sumit Kumar, Sandeep Pandey, Anita Rana, MintuPal, <b>Nanda Gopal Sahoo*</b>	Green and cost-effective synthesis of 2D and 3D Graphene-based nanomaterials from Drepanostachyumfalcatum for Bio-imaging and Water purification applications	Chemical engineering journal advances, 10, 100265	2022
K.K. Garg, S. Pandey, A. Kumar, A. Rana, N.G Sahoo, RK Singh	Graphene nanosheets derived from waste plastic for cost-effective thermoelectric applications	Results in Materials, 13,100260	2022
Himani Tiwari, Neha Karki, Chetna Tewari, <b>Nanda Gopal Sahoo*</b>	Dual Drug Loaded Potassium-Doped Graphene Oxide as a Nanocarrier in Cocktailed Drug Delivery for the Treatment of Human Breast Cancer	Current Drug Delivery 20(7), 943-950	2022
N. Karki, H. Tiwari, M. Matiyani, R. Bal, M. Pal, <b>N. G. Sahoo*</b>	Synergistic effect of avidin/biotin system with biofunctionalized graphene oxide based nanocarrier in targeted co-delivery of hydrophobic anticancer drug SN-38	Journal of Vinyl and Additive Technology 28(03), 474-486	2022
T. Sharma, B. Gultekin, P. S. Dhapola, <b>N. G. Sahoo</b> , S. Kumar, D. Agarwal, H. K. Jun, D. Singh, G. Nath, P. K. Singh, A. Singh	Ionic liquid doped poly (methyl methacrylate) for energy applications	Journal of Molecular Liquids, 352,118494	2022
VD Punetha, S Dhali, A Rana, N Karki, H Tiwari, P Negi, S Basak, <b>N.G. Sahoo*</b>	Recent Advancements in Green Synthesis of Nanoparticles for improvement of bioactivities: a Review	Current Pharmaceutical Biotechnology 23 (7), 904-919	2022
A Rana, PB Negi, AHC Tripathi, M Pal, <b>N.G. Sahoo*</b>	Chemical Composition, Antifungal, Antioxidant and Cytotoxic Potential of Apium graveolens L. (Celery) Leaves Essential Oil Collected from Nainital, Uttarakhand	Journal of Essential Oil Bearing Plants 25 (4), 844-858	2022
G. Nath, P.S. Dhapola, <b>N.G. Sahoo</b> , S. Singh, V. Singh, P.K. Singh	Polyvinylpyrrolidone with ammonium iodide and plasticizer ethylene carbonate solid polymer electrolyte for supercapacitor application	Journal of Thermoplastic Composite Materials, 35, 879-890	2022
G. Tatrari, M. Karakoti, C. Tewari, S. Pandey, B.S. Bohra, A. Dandapat, <b>N.G. Sahoo*</b>	Solid waste derived carbon nanomaterials for supercapacitor application: A recent overview	Materials Advances, 2 (5), 1454-1484	2021
C. Tewari, B. SanthiBhushan, A.	Metal doped graphene oxide derived from Quercus ilex fruits for selective	Sustainable Chemistry and	2021

Srivastava, <b>N.G. Sahoo*</b>	and visual detection of iron (III) in water: Experiment and theory	Pharmacy 21, 100436	
G. Tatrari, M. Karakoti, C. Tewari, S. Pandey, B.S. Bohra, A. Dandapat, <b>N.G. Sahoo*</b>	Solid waste derived carbon nanomaterials for supercapacitor application: A recent overview	Materials Advances, 2 (5), 1454-1484	2021
S. Pandey, A. Kumar, M. Karakoti, K. K. Garg, A. Rana, G. Tatrari, B.S. Bohra, P. Yadav, R. K. Singh, <b>N.G. Sahoo*</b>	3D Graphene Nanosheets from Plastic Waste for Highly Efficient HTM free Perovskite Solar Cells	Nanoscale Advances, 3 (16), 4726-4738	2021
M. Karakoti, S. Pandey, R. Jangra, P.S. Dhapola, P. K Singh, S. Mahendia, A. Abbas, <b>N. G. Sahoo*</b>	Waste Plastics Derived Graphene Nanosheets for Supercapacitor Application	Materials and Manufacturing Processes, 36 (2), 171-177	2021
M. Karakoti, S. Pandey, R. Jangra, P.S. Dhapola, P. K Singh, S. Mahendia, A. Abbas, <b>N. G. Sahoo*</b>	Mass production of metal-doped graphene from the agriculture waste of Quercus ilex leaves for supercapacitors: inclusive DFT study	RSC Advances, 11 (18), 10891-10901	2021
N.S. Bisht, S.P.S. Mehta, <b>N.G. Sahoo</b> , A.Dandapat	Room temperature synthesis of CuO-Bi-BiOBr ternary Z-scheme photocatalyst for enhanced sunlight driven alcohol oxidation	Dalton Transactions 50 (14), 5001-5010	2021
G Tatrari, C Tewari, BS Bohra, S Pandey, M Karakoti, S Kumar, H Tiwari, S. Dhali, <b>N.G. Sahoo*</b>	Waste plastic derived graphene sheets as nanofillers to enhance mechanical strength of concrete mixture: An inventive approach to deal with universal plastic waste	Cleaner Engineering and Technology, 5, 100275,	2021
A Singh, P.S.Dhapola, S Singh, P.K. Singh, A.S. Samsudin, <b>N.G. Sahoo</b> , Hee-Woo Rhee	Highly conducting polymer electrolyte-ionic liquid and porous carbon material for sandwich electric double layer capacitor	High Performance Polymers, 33 (4), 469-475	2021
N. Karki, H. Tiwari, C. Tewari, A. Rana, N. Pandey, S. Basak, <b>N.G. Sahoo*</b>	Functionalized graphene oxide as a vehicle for targeted drug delivery and bioimaging applications	Journal of Materials Chemistry B 8 (36), 8116-8148	2020
M. Karakoti, R. Jangra, S. Pandey, P.S. Dhapola, S. Dhali, S. Mahendia, R. K Singh, <b>N. G. Sahoo*</b>	Spray dryer processed graphene oxide/reduced graphene oxide for high-performance supercapacitor	International Journal of Applied Ceramic Technology, 7 (4), 1899-1908	2020
K. Balaji, M. Singh, V. Parthasarathy, C. Park, <b>N.G. Sahoo</b> , G.J. Yun, S. Rana	Spray dryer processed graphene oxide/reduced graphene oxide for high-performance supercapacitor	International Journal of Applied Ceramic Technology, 7 (4), 1899-1908	2020
K. Balaji, M. Singh, V. Parthasarathy, C. Park, <b>N.G. Sahoo</b> , G.J. Yun, S. Rana	Disulfide Exchange Assisted Self-Healing Epoxy/PDMS/Graphene Oxide Nanocomposites	Nanoscale Advances, 2 (7), 2726-2730,2020	2020
S Pandey, M Karakoti, N	Single Step Blending of PEDOT:	Journal of	2020



Chaudhary, S Gupta, A Kumar, S Dhali, A Patra, R. K Singh, <b>N. G. Sahoo*</b>	PSS/SPGO Nanocomposite via Low Temperature Solid Phase Addition of Graphene Oxide for Effective Hole Transport Layer in Organic Solar Cells	Nanoscience and Nanotechnology 20 (6), 3888-3895	
H Ahuja, PS Dhapola, <b>N.G. Sahoo</b> , V Singh, PK Singh	Ionic liquid (1-hexyl-3-methylimidazolium iodide)-incorporated biopolymer electrolyte for efficient supercapacitor	High Performance Polymers, 32 (2), 220-225	2020
M Karakoti, R Jangra, S Pandey, PS Dhapola, S Dhali, S Mahendia, P K Singh, <b>N.G. Sahoo*</b>	Binder-free reduced graphene oxide as electrode material for efficient supercapacitor with aqueous and polymer electrolytes	High Performance Polymers 32 (2), 175-182	2020
S Pandey, M Karakoti, S Dhali, N Karki, B SanthiBhushan, C Tewari, S. Rana, A. Srivastava, A.B. Melkani, <b>N. G. Sahoo*</b>	Bulk synthesis of graphene nanosheets from plastic waste: An invincible method of solid waste management for better tomorrow	Waste Management, 88, 48-55	2019
C Tewari, G Tatrari, M Karakoti, S Pandey, M Pal, S Rana, B SanthiBhushan, A.B. Melkani, A. Srivastava, <b>N. G. Sahoo*</b>	A simple, eco-friendly and green approach to synthesis of blue photoluminescent potassium-doped graphene oxide from agriculture waste for bio-imaging applications	Materials Science and Engineering: C 104, 109970	2019
H Tiwari, N Karki, M Pal, S Basak, RK Verma, R Bal, ND Kandpal, G Bisht, <b>N. G. Sahoo*</b>	Functionalized Graphene Oxide as a Nanocarrier for Dual Drug Delivery Applications: The Synergistic Effect of Quercetin and Gefitinib Against Ovarian Cancer Cells	Colloids and Surfaces B: Biointerfaces, 169, 265-272	2018
NS Bisht, D Pancholi, <b>N.G. Sahoo</b> , AB Melkani, SPS Mehta, A 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, 9 (15), 3923-3932	2019
N Pandey, C Tewari, S Dhali, BS Bohra, S Rana, SPS Mehta, S Singhal, Alok Chaurasia, <b>N.G. Sahoo*</b>	Effect of graphene oxide on the mechanical and thermal properties of graphene oxide/hytrel nanocomposites	Journal of Thermoplastic Composite Materials, 34(1), 55-67	2019
P.S. Dhapola, <b>N.G. Sahoo</b> , B. Bhattacharya, Y. Kumar, P.K. Singh, M. Gupta	Elaborative Studies on Non-Porous Carbon Material for Super Capacitor Application	Macromolecular Symposia, 388 (1), 1900035	2019
Sandeep, S. R. V. Siva Prasanna, M. Karakoti, C. Tewari, B. S. Bhushan, J. K. Pandey, A. Srivastava, S. Rana, <b>N. G. Sahoo*</b>	Dispersion and Stability Study of Carbon Nanotubes in pH and Temperature Responsive Polymeric Matrix: Experiment and Dispersion-corrected DFT Study	Materials Today Communications, 7, 187-193	2018

N. Karki, H. Tiwari, M. Pal, A. Chaurasiya, R. R. Bal, P. Joshi, <b>N. G. Sahoo*</b>	Functionalization of graphene oxides with polyvinylpyrrolidone and $\beta$ -cyclodextrin for drug loading, release and delivery of poorly water-soluble anticancer drug: A comparative study	Colloids and Surfaces B: Biointerfaces, 169, 265-272	2018
A Rana, A Kumar, MW Rahman, N Vashistha, KK Garg, S Pandey, <b>N. G. Sahoo</b> , S Chand, R K Singh	Non-approximated series resistance evaluation by considering high ideality factor in organic solar cell	AIP Advances, 8 (12), 125121	2018
S. Dey, S. Shah, M. Ghosh, N. Karki, S. Basak*, <b>N. G. Sahoo*</b>	A novel, quick column switching RP-HPLC guided metabolite profiling of Albendazole-Praziquantel in rat plasma: Designing new combination dosage regimen with higher therapeutic window	Current Analytical Chemistry, 14(6), 604-614	2018
P. S. Dhapola, P. K. Singh, B. Bhattacharya, K. Surana, R.M. Mehra, M. Gupta, A. Singh, V. Singh, <b>N. G. Sahoo*</b>	Electrical, thermal, and dielectric studies of ionic liquid-based polymer electrolyte for photoelectrochemical device	High Performance Polymers, 30 (8), 1002-1008	2018
V. D. Panetta, S. Rana, H.J. Yoo, A. Chaurasia, M. S. Ramasamy, <b>N.G. Sahoo*</b> , J.W Cho*	Functionalization of carbon nanomaterials for advanced polymer nanocomposites: A comparison study between CNT and graphene	Progress in Polymer Sciences, 67, 1-47	2017
S. Basak, S. Mondal, S. Dey, P. Bhattacharya, A. Saha, V. D. Punetha, A. Abbas*, <b>N. G. Sahoo*</b>	Fabrication of $\beta$ -cyclodextrin-mediated single bimolecular inclusion complex: characterization, molecular docking, in-vitro release and bioavailability studies for gefitinib and simvastatin conjugate	Journal of Pharmacy and Pharmacology, 69, 1304-1317	2017
S. Basak*, <b>N. G. Sahoo*</b> , A. K. Pavanasam	Genome mining, in silico validation and phase selection of a novel aldoketo reductase from <i>Candida glabrata</i> for biotransformation	Bioengineered, 9(1), 186-195	2017
S. Basak, S.K. Ghosh, V.D. Punetha, A. N. Aphale, P.K. Patra, <b>N.G. Sahoo*</b>	An experimental modeling of trinomial bioengineering-crp, rDNA, and transporter engineering within single cell factory for maximizing two-phase bioreduction	International Journal of Biological Macromolecules, 95, 818-825	2017
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b) Patents (start from recent publications) **(add row if required)**

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<b>N.G. Sahoo</b> , Sandeep, M. Karakoti, V.D. Punetha	A process of Manufacturing Graphene	Indian Patent Grant No. 352780	Dec 2020
S. Basak, <b>N.G. Sahoo</b> , R. Das, Neha	Natural Degradation Products of Promethazine Compound	Indian Patent Grant No. 352905	Dec 2020
Sandeep Pandey, Manoj Karakoti, Sunil Dhali, C. Tewari, and <b>Nanda Gopal Sahoo</b>	Process of preparation of naturally doped Silicon, Magnesium and Calcium Graphene nanosheets from Paper Waste for Energy Applications	Indian Patent Grand no. 419214 Australian Innovation Patent Grant no. 2021100550	2023 April 2021
<b>N G Sahoo</b> , Gaurav Tatrari, Chetna Tewari, Sandeep Pandey, Himani Tiwari, Manoj Karakoti, A B Melkani	A process of manufacturing highly porous 3D graphene nanoflakes (HP3DGNFs) doped with alkali and transition metals	Indian Patent Grant no. 402397	2022
Manoj Karakoti, Sandeep Pandey, Sunil Dhali, Chetna Tewari, Anurag Srivastava, Reena Srivastava, <b>NG Sahoo</b>	Highly Efficient Graphene-Soap Based Spray Paints for the Efficient Killing Of Corona viruses and preparation process thereof	Indian Patent Grant no. 400474	2022
<b>N.G. Sahoo</b> , C. Tewari, S. Pande, M. Karakoti, S. Dhali, H. Tewari, G. Tatrari, A.B. Melkani	Hydro-Solvo-Thermal Graphene Oxide Synthesis Method	Indian Patent Grant no. 429734	2023
<b>N.G. Sahoo</b> , Gaurav Tatrari, Sandeep Pandey, Chetna Tewari,	Polymeric waste derived nanographitic additives for concrete mixture and	Australian Innovation Patent Grant no. 2021100549	April 2021



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Sandeep Pandey, Manoj Karakoti, Sunil Dhali, Neha Karki, <b>Nanda Gopal Sahoo</b>	Cotton Based Scalable Green Synthesis of Graphene Nanofibers	Australian Innovation Patent Grant no. 2021100552	April 2021
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<b>N.G. Sahoo</b> , C. Tewari, G. Tatrari, S. Pandey, H. Tewari, A. Damdapat	Graphene based nanomaterials derived from Drepanostachyumfalcatum for water Purification	Australian patent Grant No. 202111031289	2021
Anirban Dandapat, Deepika Pancholi, Narendra Singh Bisht, Veena Pande, Sandeep Pandey, <b>Nanda Gopal Sahoo</b>	A Process To Synthesize Crystalline BiOBr/BiOI Solid Solution Nanostructures	Patent Application No. 202011040517	Dec12, 2021
<b>N.G. Sahoo</b> , G. Tatrari, C. Tewari, M. Pathak, B.S. Bohra, M. Matiyani, D. Bhat, T. Arya	Process for manufacturing 3d-graphene flower skeletons from coconut-husk-fibers for fabricating supercapacitors and its composition thereof	Patent Application No. 202311051097	Jul 28, 2023
<b>N.G. Sahoo</b> , M. Pathak, B.S. Bohra, G. Tatrari, A. Rana, C. Tewari, D. Bhat, T. Arya, D. Melkani	Kinnow peel waste derived graphene nanosheets for highperformance supercapacitor	Patent Application No. 202311051096	Jul 28, 2023
<b>N.G. Sahoo</b> , M. Pathak, R.C. Bhat, D. Bhat, Y.C. Jung, C. Tewari, Y.N. Kim	System and method for preparing supercapacitors utilizing three-dimensional hierarchical porous nitrogen-doped reduced graphene-oxide	Patent Application No. 202311070819	Oct 10, 2023

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Authors name	Title of the book	Publisher	ISBN	Year
<b>Nanda Gopal</b>	Waste Management:	Nova Science Publisher	978-1-68507-369-5	2022

<b>Sahoo</b>	Strategies, Challenges and Future Directions, USA			
<b>Nanda Gopal Sahoo</b> and Anirban Dandapat	Properties and Applications of Nanosheets 2024	Nova Science Publisher, USA	979-8-89113-381-5	2024

c) Book chapters (start from recent publications) (**add row if required**)

<b>Authors name</b>	<b>Title of the book</b>	<b>Publisher</b>	<b>ISBN</b>	<b>Year</b>
C. Tewari, S. Kumar, B. Saha, Y.C. Jung, <b>N. G. Sahoo</b>	Technological Solutions for Water Sustainability: Challenges and Prospects Towards a Water-secure India	IWA Publishing	9781789063707, 9781789063714	2023
G. Vajitha, K.P. Madan, C. Tewari, <b>N.G. Sahoo</b> , S. M.Maliyekkal	Technological Solutions for Water Sustainability: Challenges and Prospects Towards a Water-secure India	IWA Publishing	9781789063707, 9781789063714	2023
V. Choudhary, S. Kumar, C. Tewari, <b>N. G. Sahoo</b> , L. Philip	Technological Solutions for Water Sustainability: Challenges and Prospects Towards a Water-secure India	IWA Publishing	9781789063707, 9781789063714	2023
S. Dhali, M.Karakoti, A.Dandapat, <b>N. G. Sahoo</b>	Graphene Extraction from Waste	Elsevier	978-0-323-90914-3	2023
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H. Tiwari, N. Karki, M. Matiyani, G. Tatrari, A. B. Melkani, <b>N. G. Sahoo</b>	Quantum dot-based material for drug delivery application	Materials Research Forum	9781644901250-8	2021
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N. Pandey, B. S.	Degradation of Plastic	Materials	1644901323, 978-	2021

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A. Chaurasia, <b>N.G. Sahoo*</b> , M. Wang, C.B. He, V. T. Mogal	Handbook of Manufacturing Engineering and Technology	Springer	978-1-4471-4671-1	2015
<b>N.G. Sahoo</b> , L. Li.	Aerospace Materials Handbook	Taylor & Francis Group	978-1-4398-7329-8,	2012
<b>N.G. Sahoo</b> , S. Rana, J.W. Cho, L. Li	Functional Composites of Carbon Nanotubes and Applications	Transworld Research Network		2009

d) Conference Publications/Proceedings (start from recent publications) **(add row if required)**

Authors name	Title of the paper	Conference name	Year
Tanuja Arya, Bhashkar Singh Bohra, Chetna Tewari, <b>Nanda Gopal Sahoo</b>	“Agriculture Waste derived Carbon Nanomaterials based Poly (Vinyl Alcohol) Nanocomposites for Structural Application”	An International conference on BioHeal-2023 (Biomaterials and Health Care 2023	13-16th April, 2023
Diksha Bhatt,	“Upcycling of waste plastics	An International	13-16th

Mayank Pathak, <b>N.G. Sahoo</b>	for conservation of EEE (Ecology, Economy and Energy)".	conference on BioHeal-2023 (Biomaterials and Health Care 2023)	April, 2023
Rajesh Chandra Bhatt, Gaurav Tatrari, Mayank Pathak, <b>N.G. Sahoo</b>	The waste derived reduced graphene oxide for waste water treatment and high-performance supercapacitor"	An International conference on BioHeal-2023 (Biomaterials and Health Care 2023)	13-16th April, 2023
Diksha Bhatt, Gaurav Tatrari, <b>N.G. Sahoo</b>	"Synthesis of NiCo <sub>2</sub> O <sub>4</sub> and NiC-WPG nanocomposite for high performance supercapacitor".	National Conference on Emergent Material for Energy and Environment (EMEE-2023)	4-5 <sup>th</sup> March 2023
Mayank Pathak, Diksha Bhatt, N. <b>G. Sahoo</b>	A green supercapacitor	National Conference on Emergent Material for Energy and Environment (EMEE-2023)	4-5 <sup>th</sup> March 2023
Chetna Tewari, Tanuja Arya, <b>Nanda Gopal Sahoo</b>	"Development of waste plastic derived reduced graphene oxide and its composites with Fe <sub>3</sub> O <sub>4</sub> for removal of drugs from water samples"	An International Conference on Water for Life,	15-17th December, 2022.
Chetna Tewari, <b>Nanda Gopal Sahoo</b>	"Metal doped reduced graphene oxide derived from waste plastics and removal of diclofenac from water samples"	First International conference on circular Economy and Sustainable water management SuWam-2022, 2022.	2022
Chetna Tewari, <b>Nanda Gopal Sahoo</b>	"Waste to wealth: A green and sustainable approach to develop carbon-based nanomaterials for bioimaging and water purification"	National Conference on Environmental Challenges for Sustainable Development,	26-27th March, 2022.
Mayank Pathak, <b>Nanda Gopal Sahoo</b>	"Waste to Energy: Fruit Waste to Graphene Nanosheets and their application in Binder-free Supercapacitor"	National Conference on Environmental Challenges for Sustainable Development,	26 & 27 March 2022.
Mayank Pathak, <b>Nanda Gopal Sahoo</b>	"Waste to Graphene Nanosheets and their application in Energy Storage System: A Novel Path towards Circular Economy of Himalayan Regions,	National Conference on Climate Change: Its Impact on Bio-Resource of the Himalayan Region"	5 & 6 June 2022

Mayank Pathak, Gaurav Tatrari, <b>Nanda Gopal Sahoo</b>	“Flexible Supercapacitor from Waste derived graphene nanosheets; From waste to energy”	International Conference on Beyond Fossil Fuels : The Future of Alternative Energy Technologies (B:FAT-2020),	23July- 25 July 2022.
Mayank Pathak, Gaurav Tatrari, <b>Nanda Gopal Sahoo</b>	“Bulk Synthesis of Graphene Nanosheets from Waste Plastics and Waste Biomass for Supercapacitor application:	Waste to Wealth”; International Conference on “Emerging Materials for Sustainable Development (EMSD-2022)”	9 October- 11 October 2022.
Mayank Pathak, <b>Nanda Gopal Sahoo</b>	“Upcycling of biogas plant extract into graphene nanosheets for energy storage application: An indigenous path towards circular economy”;	International Online Conference on Reuse, Recycling, Upcycling, Sustainable Waste Management and Circular Economy (ICRSC)	09 September- 11 September 2022.
Bhashkar Singh Bohra, Tanuja Arya, <b>Nanda Gopal Sahoo</b>	“Agricultural waste derived grapheme oxide based PVA polymer nanocomposites for structural applications”	National Conference on Climate Change: Its Impact on Bio-Resource of the Himalayan Region (CCIBHR)	5th- 6th June 2022
Chetna Tewari, <b>Nanda Gopal Sahoo</b>	“A Simple, Eco-Friendly and Green Approach to Synthesis of Carbon Nanomaterial from Agricultural Waste for Metal Sensing and Bioimaging Application”	International Conference on Nanomedicine: Biomolecules for Human Health (NBHH-2021),.	27-28th Sept, 2021
Gaurav Tatrari, N. <b>G. Sahoo</b>	“Tire waste Derived Zinc doped Graphene Nanosheets for High Performance Supercapacitors,”	Online International Conference on Energy and Environmental Materials (INCEEM)	29-31st July, 2021.
Gaurav Tatrari, Nirvik Sahoo, Chetna Tewari, Manoj Karakoti, Anirban Dandapat	“Waste Plastic Derived Graphene/ Vanadium Pentaoxide Composite for High Performance Supercapacitor Applications”	4th Online International Conference on Science & Engineering of Materials (ICSEM-2021),	19th-22nd July, 2021.
Monika Matiyani, <b>N.G. Sahoo</b>	“An Approach Towards Fabrication of Smart and Well Organized Multi-Functionalized Graphene Oxide based Nanocarrier for Anticancer Drug Quercetin: An in-vitro Study”	International Conference on Science & Engineering of Materials (ICSEM-2021),	29th-31st July 2021.
Monika Matiyani,	“Dendrimer functionalized	Kirori Mal College,	27-28th

A. Rana, N.G. <b>Sahoo</b>	Graphene Oxide based Nanocarrier for pH-responsive delivery of Anticancer Drug Quercetin: A remedy for breast cancer”	New Delhi, India, 2021	September 2021.
Anita Rana, M. Matiyani, N.G. <b>Sahoo</b>	“Functionalized Graphene Oxide based nanocarrier for enhanced cytotoxicity of Juniperus squamata essential oil against breast cancer cells”;	Kirori Mal College, New Delhi, India, 2021	27-28th September 2021.
Bhashkar Singh Bohra, Neema Pandey, Nanda <b>Gopal Sahoo</b>	“Effect of functionalized graphene oxide on the mechanical and thermal properties of polymer nanocomposites”	National Conference on Advanced Materials and Applications (NCAMA-2021),	25th-26st November 2021.
Manoj Karakoti, Nanda <b>Gopal Sahoo</b>	“Generation of circular economy through conversion of solid waste into carbon nanomaterials and their application in supercapacitor”	2 <sup>nd</sup> Australian Circular Economy Conference (ACEC),	7th -11th December 2020.
Manoj Karakoti, Nanda <b>Gopal Sahoo</b>	“Activated Carbon and Waste Plastics Derived Graphene Nanosheets Composite for High Performance Supercapacitor Application”; Functional Nanomaterials in Industrial & Clinical Applications.	Academic-Industry-Clinician Meet, UCLan, Preston, UK	14 <sup>th</sup> -16 <sup>th</sup> July 2020
Himani Tiwari, Chetna Tewari, Nanda <b>Gopal Sahoo</b>	“Blue Photoluminescent Potassium-Doped Graphene Oxide from Agriculture Waste as a Nanocarrier in Combined Drug Delivery: The Next Medical Challenge”	2 <sup>nd</sup> International Symposium on Functional Nanomaterials in Industrial Applications	15 July 2020
Chetna Tewari, Nanda <b>Gopal Sahoo</b>	“Waste generated 2D carbon nanomaterial for water purification and bio-imaging applications”	2 <sup>nd</sup> International Symposium on Functional Nanomaterials in Industrial Applications:	15 July 2020
Chetna Tewari, Nanda <b>Gopal Sahoo</b>	“Green approach to develop metal doped graphene oxide from agriculture waste for bio-imaging and heavy metal sensing in water”	Fifth International Online Conference on Reuse and Recycling of Materials (ICRM – 2020)	11th-13th December 2020.
Chetna Tewari, Nanda <b>Gopal Sahoo</b>	“Waste Generated 2D Nanomaterial Graphene Oxide for Water Purification Application”	14th Uttarakhand and State Science and Technology congress (14th USSTC), Dehradun, Uttarakhand, India.	2020

Sandeep Pandey, <b>Nanda Gopal Sahoo</b>	“Environmentally Friendly and Sustainable Synthesis of Carbon nanomaterials from Solid waste materials for Solar cell and Supercapacitor Applications”; Functional Nanomaterials in Industrial & Clinical Applications,	Academic-Industry Clinician Meet	14th to 16th July 2020
Sandeep Pandey, Manoj Karakoti, Sunil Dhali, Chetna Tewari, Gaurav Tatrari, <b>Nanda Gopal Sahoo</b>	“Innovation and Implementation of Value-Added Products from Solid Waste Materials for the Sustainable Growth of Economy and Ecology in the Himalayan Region of the Uttarakhand”;	14 <sup>th</sup> Uttarakhand State Science and Technology Congress 2019-20, Dehradun, Uttarakhand, India.	27-29 Feb 2020
Gaurav Tatrari, <b>N.G. Sahoo</b>	Agriculture waste derived Graphene Nanosheets for New Generation Supercapacitors and Concrete Materials”; Functional Nanomaterials in Industrial & Clinical Applications:;	Academic-Industry Clinician Meet	14th to 16th July 2020
Gaurav Tatrari, <b>N.G. Sahoo</b>	“Agriculture waste derived Graphene Nanosheets for New Generation Supercapacitors and Concrete Materials”;	14 <sup>th</sup> Uttarakhand State Science and Technology Congress 2019-20, Dehradun, Uttarakhand, India	27-29 Feb 2020,
Gaurav Tatrari, <b>N.G. Sahoo</b>	“Green approach to develop metal doped graphene oxide from agriculture waste for bio-imaging and heavy metal sensing in water”	Fifth International Online Conference on Reuse and Recycling of Materials (ICRM – 2020)	11-13 December 2020.
Gaurav Tatrari, <b>Nanda Gopal Sahoo</b>	“Remediation of Agricultural waste into Graphene nanosheets for advanced Supercapacitor application”	Fifth International Online Conference on Reuse and Recycling of Materials (ICRM – 2020)	11-13 December 2020.
Manoj Karakoti, Ritu Jangra, Sandeep Pandey, Suman Mahendia, <b>Nanda Gopal Sahoo</b>	“Effective Conversion of Waster Plastic into Few Layer Graphene for Super Capacitor Application”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),.	2019
Mayank Pathak, Gaurav Tatrari, <b>Nanda Gopal Sahoo</b>	“Green Synthesis of Highly Efficient and Doped Graphene Nanosheets By Using Waste Plastic and Cow Urine for	2nd International Conference on Energy, Functional Materials and Nanotechnology &	2019

	Super capacitor Application” ;	Sustainable Environment Management (ICEFN&SEM),	
Pawan Singh Dhapola, <b>Nanda Gopal Sahoo</b> , Pramod K. Singh, Meenal Gupta, B. Bhattacharya	“Development of electric double layer capacitor (EDLC) based on cobalt enriched porous carbon electrode and ionic liquid electrolyte”	; 2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Chetna Tewari, Neema Pandey, <b>Nanda Gopal Sahoo</b>	“Waste Plastic Generated Graphene for Removal of Heavy Metals: A Revolutionary Material for Water Purification”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Neha Karki, <b>Nanda Gopal Sahoo</b>	“Biocompatible and Hydrophilic Polymer Functionalized Graphene Oxide Mediated Drug Delivery”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Neema Pandey, S. P. S. Mehta, <b>Nanda Gopal Sahoo</b>	“A Novel and Facile Bio fabrication Route of Reduced Graphene Oxide Using Zingiber Ofloxacin”; Extract	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Prabhat Pant, Chetna Tewari, <b>Nanda Gopal Sahoo</b>	“Synthesis and Characterization of Graphene Oxide	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Pritam Das, Himani Tiwari, Sumit Durgapal, Mahendra Rana, <b>Nanda Gopal Sahoo</b>	“Graphene Based Nano-Drug Delivery of Curcumin for The Treatment of Dengue Fever”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment	2019



		Management (ICEFN&SEM),	
Seema, Ganga Bisht, <b>Nanda Gopal Sahoo</b>	“Development of Nanoparticles of Aromatic Anticancer Drug By Spray Dryer to Enhance Dissolution Rate”;	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Monika Matiyani, <b>Nanda Gopal Sahoo</b>	“Chitosan Nanoparticles Grafted Graphene Oxide for Drug Delivery Applications	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Sunil Dhali, Sandeep Pandey, Manoj Karakoti, S.P.S. Mehta, <b>Nanda Gopal Sahoo</b>	“Low temperature Graphene Oxide supported Pd-Ru efficient Novel Metal Catalyst for Proton Exchange Membrane Fuel Cells”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Gaurav Tatrari, Mayank Pathak, <b>Nanda Gopal Sahoo</b>	“Agriculture Waste Derived MWCNT for Low Cost Energy Storage Devices: A Revolutionary Paradigm for Universal Energy Crisis”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Bhashkar Singh Bohra, <b>Nanda Gopal Sahoo</b>	“Graphene Oxide Based Polymer Nanocomposite For Structural Applications”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Ganesh Chandra, Sandeep Pandey, <b>Nanda Gopal Sahoo</b>	“Development of the new routes of fabrication for Graphene Based Dye Sensitized Solar Cells”;	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019

Kuldeep K. Garg, Sandeep Pandey, Amit Kumar, <b>Nanda Gopal Sahoo</b> , Rajiv K. Singh	“Graphene Based Organic Thermoelectric Composites Material for Energy Harvesting Applications”;	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Sandeep Pandey, Manoj Karakoti, Sunil Dhali, <b>Nanda Gopal Sahoo</b>	“Thin Film Preparation of Carbon Nano Materials via Solvent-Antisolvent Technique for Optoelectronic Applications”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Himani Tiwari, Ganga Bisht, <b>Nanda Gopal Sahoo</b>	“Functionalized Graphene Oxide as a nanovehicle for the delivery of Cocktailed Drug System”	2nd International Conference on Energy, Functional Materials and Nanotechnology & Sustainable Environment Management (ICEFN&SEM),	2019
Sandeep Pandey, Manoj Karakoti, Sunil Dhali, Chetna Tiwari, <b>Nanda Gopal Sahoo</b>	“Remediation of Soild Plastic waste into value added synthesis of Graphene Nano Flakes: An Invincible Method of Solid Waste Management for Better Tomorrow”.	International conference on Nanotechnology; Ideas, Innovations and Initiatives-2017,	6th-8December, 2017.
Sunil Dhali, Sandeep, Manoj Karakoti, SPS Mehta, <b>Nanda Gopal Sahoo</b>	“Development of graphene oxide based metal catalyst for proton exchange membrane fuel cell ( PMFCs)” .	International conference on Study of Nanometrials and Scientific Development in 21st Century (ICSNSDC),	Nov. 3-5, 2017,
Seema, Himani Tiwari, Ganga Bisht, <b>Nanda Gopal Sahoo</b>	“Fabrication and Characterization of Curcuminoid Nanoparticles”.,	8th Conference of The Indian Science Congress Association (Haridwar Chapter) Nainital	14th-15th October, 2017
S. Dhali, V.D. Punetha, M. Karakoti, Sandeep,S. P.S. Mehta, N. <b>G. Sahoo</b>	“Nitrogen Doped Graphene For Enhanced Catalytic Activity In Fuel Cell”, Fabrication of drug nanoparticles for pharmaceutical applications, ,	UCOST, Dehradun, Uttarakhand	2-4th March, 2017
Seema,	Fabrication of drug	UCOST, Dehradun,	March 2-4,

V.D.Punetha, G. Bisht, N. G. Sahoo	nanoparticles for pharmaceutical applications	Uttarakhand	2017,.
H. Tiwari, Neha, V.D.Punetha, G. Bisht, N. G. Sahoo	Functionalized graphene oxide as a nano carrier for efficient drug delivery	UCOST, Dehradun, Uttarakhand	March 2-4, 2017
Manoj Karakoti, Pushkar Dutt, Sandeep, Neema Pandey, Sunil Dhali, Nanda Gopal Sahoo	Polymer nanocomposite for energy application, NEW-2017,	UPES, Dehradun	22-24 th Feb
Sandeep, M. Karakoti, V.D. Punetha, N.G. Sahoo	“Synthesis of 2D nanomaterials for energy applications”,	IWCCMP-2016, ABV-IITM, Gwalior,	18-20th Nov.-2016.
S. Dhali, V.D. Punetha, S.P.S. Mehta, N.G. Sahoo	“Synthesis of graphene and CNT hybrids for fuel cell applications”,	IWCCMP-2016,	18-20th Nov.-2016
M. Karakoti, Sandeep, N.G. Sahoo	“Synthesis of graphene from waste plastic”,	ICMAMN-2016,	25-27th Nov.-2016.
Neha, H. Tiwari, V. D. Punetha, N.G. Sahoo	“Graphene oxide as a nano carrier for drug delivery application”,	ICMAMN-2016,	25-27th Nov.-2016
P. S. Dhapola, B. Bhattacharya, P. K Singh, N. G. Sahoo	“Comparative studies on Polyethylene oxide Doped Sodium Iodide (PEO:NaI) and Ionic Liquid (1-Ethyl-3-Methylimidazolium) Doped (PEO:NaI) Solid Polymer Electrolyte”, ,	ICFM 22016	7-10th September 2016.
James T. McLeskey, Jr., N. G. Sahoo, V. D. Punetha, Richard J Esteves, D. Pestov, I. U. Arachchige	“Towards Photovoltaics from Germanane”,	UNC SERC Conference 2016,	2016.
Sandeep, Manoj Karakoti, V. D. Punehta, N. G. Sahoo	Synthesis of 2-Dimensional carbon nanomaterials from waste plastic”,	19th International conference of international academy of physical sciences & symposium on fixed point theory and dynamical systems (CONIAPS XIX), 2016.	2016.

Sandeep, Manoj Karakoti, V. D. Punehta, N. G. <b>Sahoo</b>	“Environmental Sustainable Smart Synthesis of 2-D Carbon nanomaterials Along with the Production of High Value Added Fuel”, India.	International Science Festival 2016 (IISF)	7-11th Dec 2016,
V. D. Punetha, Ganga Bisht, V. K. Gangari, N. G. <b>Sahoo</b>	“PVA functionalized graphene oxide as a nanocarrier of insoluble anticancer quercetin molecules, isolated from Juniperus squamata Buch-Ham.exD.Don”	ICEFN 2016,	March 27-29,
P. S. Dhapola, Manoj Karakoti, Sandeep, Sunil Dhali, Bhaskar Bhattacharya, P. K. Singh, N. G. <b>Sahoo</b>	“Solid polymer electrolyte: a novel approach towards dye sensitized solar cells (DSSC)”,	ICEFN 2016,	March 27-29
S. Dhali, P. Joshi, N. Pandey, P.S. Dhapola. S.P.S. Mehta, N.G. <b>Sahoo</b>	“Synthesis of graphene oxide and its applications”.	ICEFN 2016,	March 27-29.
Neha, Meena Kafaltiya, V. D. Punetha, M. K. Devrani, Himani Tiwari, Seema, Ganga Bisht, N. G. <b>Sahoo</b>	“Cultivation of Hedychium spicatum on Zn amended soil: A phytoremedial aspect”,	ICEFN 2016,	March 27-29.
V. D. Punetha, N. G. <b>Sahoo</b>	“Advance Nanomaterial Based Anticancer Drug Delivery, National Workshop on advancement in material science and physics”,	WAMP 2015,	November 2015.
N. G. <b>Sahoo</b> , James T. McLeskey, Jr	“Development of Graphene Based Materials for Energy Conversion”,	“Energy Materials Nanotechnology (EMN international conference)”,	Nov. 22-25, 2014
N.G. <b>Sahoo</b> , T. Warintorn, C.B. He, W. Mian	Graphene based polymer nanocomposites,	15 ACC Conference, Singapore,	August 19-23, 2013
Jilei LIU, N.G. <b>Sahoo</b> , Zexiang SHEN, Jianyi LIN	A Green Approach to the Synthesis of High-quality Graphene Oxide Flakes Via Electrochemical Exfoliation of Pencil Core, ,	ICMAT 2013	June 30 to July 5,
M. Kakran, N.G. <b>Sahoo</b>	“Functionalized Graphene Oxide for Loading and Delivery of Poorly Water-	“Materials for Tomorrow”,	Dec 6-7, 2012.

	Soluble Drugs”,		
<b>N.G. Sahoo, M. Kakran, L. Lin, Z. Judeh</b>	“Preparation of composite microparticles for dissolution enhancement of a poorly water-soluble anti-malarial drug	CHEMECA 2011	Sep. 18-21, 2011
<b>M. Kakran, N.G. Sahoo, L. Lin, R.H. Mullar</b>	“Comparison of Homogenization and Precipitation techniques for Production of Quercetin Nanocrystals”	CHEMECA 2011	Sep. 18-21, 2011
<b>M. Kakran, N.G. Sahoo, L. Lin</b>	“Precipitation of Poorly Water-Soluble Antioxidant Hesperetin for Improved Solubility and Dissolution”,	CHEMECA 2011	Sep. 18-21, 2011
<b>M. Kakran, R. Shegokar, L. Al Shaal, N.G. Sahoo, L. Li, R.H. Müller</b>	Production Optimization of Antioxidant Quercetin Nanocrystals, Abstract 2265,	AAPS Annual Meeting and Exposition,	, October 23–27, 2011,
<b>N.G. Sahoo, L. Al Shaal, M. Kakran, L. Lin, R.H. Mullar</b>	“Artemisinin nanocrystals for improved oral bioavailability in malaria treatment”,	AAPS 2010, USA,	Nov. 14-18, 2010
<b>N.G. Sahoo, L. Al Shaal, M. Kakran, L. Lin, R.H. Mullar</b>	“Antioxidant Quercetin: Preparation and characterization of nanocrystals”,	AAPS 2010, USA,	Nov. 14-18, 2010
<b>N.G. Sahoo, M. Kakran, L. Lin, Z. Judeh</b>	“Preparation of quercetin nanoparticles for improved oral bioavailability”,	CHEMECA 2010	Sep. 26-29, 2010.
<b>N.G. Sahoo, M. Kakran, A. Abbas, L. Lin, Z. Judeh</b>	“Preparation of artemisinin microparticles with enhanced solubility using a modified 4-fluid nozzle pilot spray drier”,.	CHEMECA 2010	Sep. 26-29, 2010.
<b>H.K.F. Cheng, N.G. Sahoo, L. Li, S.H. Chan, and J. Zhao</b>	“An innovative approach for the fabrication of highly conductive nanocomposites with different carbon fillers”,	36 <sup>th</sup> International MATADOR Conference 2010,.	July 13-16, 2010
<b>H.K.F. Cheng, N.G. Sahoo, L. Li, S.H. Chan, and J. Zhao</b>	Molecular interactions in PA6, LCP and their blend incorporated with the functionalized carbon nanotubes”.	ICoPE 2010 & 13 <sup>th</sup> ICPE International conference on Precision,	July 28-30, 2010
<b>N.G. Sahoo, H.K.F. Cheng, L. Li, S.H. Chan, and J. Zhao</b>	“Functionalization of carbon nanotubes for advanced CNT/LCP nanocomposites”.	NSTI-Nanotech 2010, Vol 1, 744-745,	2010
<b>M. Kakran, N.G. Sahoo, L. Lin</b>	“Fabrication of Nano-sized and Nano-coated Drugs	ICMAT-2009	28 June-3 July 2009.

	Particles for Drug Delivery applications”,		
<b>N.G. Sahoo</b> , M. Kakran, L. Lin	“Preparation of micro/nanoparticles for solubility enhancement of poorly water soluble drug”,	International Conference on High-Tech Materials (ICHTM-2009),.	Feb 11-13, 2009.
<b>N.G. Sahoo</b> , N.T. Thet, S.H. Chan, L. Li	“ Effects of carbon nanotubes and processing methods on CNT/polymer composites”,.	IUMRS-ICA 2008,	Dec 9-13, 2008
L. Li, <b>N.G. Sahoo</b> , N.T. Thet, S.H. Chan, and J. Zhao	“Dispersion of Carbon Nanotubes (CNTs) for Conductive Polymer Composites”	3rd International Symposium on Molecular Materials (MOLMAT2008),	July 8-11, 2008.
Jae Whan Cho, Yong Chae Jung, <b>N.G. Sahoo</b>	“Polyurethane Nanostructure and Nanocomposites for Intelligent Shape Memory Applications”,	MACRO 2006 Polymer for	2006.12.17-21
Yong Chae Jung, <b>N.G. Sahoo</b> , Jae Whan Cho	Fabrication and Properties of Nanostructured Polyurethane for Intelligent Shape Memory Applications”,	Proceedings of the 20th Scientific Conference	2006
J.W.Cho, <b>N.G. Sahoo</b> , Y.C.Jung Macro	“Nanocomposites Composed of Functionalized Carbon Nanotubes and Polyurethane Block Copolymer”,	World Polymer Congress Brazil.	2006
<b>N.G. Sahoo</b> , Y.C. Jung, H.J. Yoo and J.W. Cho	“Preparation and Properties of Polyurethane Nanocomposites by Functionalization of Multi-Walled carbon Nanotubes”.	International Fiber Conference 2006	2006
Y.C. Jung, <b>N.G. Sahoo</b> , H.J. Yoo and J.W. Cho	“Microstructure and Properties of Polyurethane-Crosslinked Nanocomposites Using Functionalized Carbon Nanotubes”,	International Fiber Conference 2006, P. 375-376.	2006
Y.C. Jung, H.J. Yoo, <b>N.G. Sahoo</b> , and J.W. Cho	“Polyurethane Nanocomposites of Functionalized Carbon Nanotubes for Electroactive Actuation”,	The Korean Textile Conference,	2005
<b>N.G. Sahoo</b> , Y.C. Jung, H.H. So and J.W. Cho	“Synthesis of Polyurethane Nanocomposites of Functionalized Carbon Nanotubes by in-situ Polymerization Methods”	ICTF-2006,	, May-2006.
Y.C. Jung, <b>N.G. Sahoo</b> , H.J. Yoo, J.W. Cho	“Enhancement of the Properties of Shape Memory Polyurethane-Crosslinked Nanocomposites by Covalent Bonding of Carbon,	ICTF-2006,	May-2006

<b>N.G. Sahoo</b> , Y.C. Jung, and J.W. Cho	Electroactive Shape Memory Effect of Polyurethane Composites Filled with Carbon Nanotubes and Conducting Polymer”	ICAMMP-2006,	Feb.-2006
<b>N.G. Sahoo</b> , Y.C. Jung, and J.W. Cho	“Effect of Carbon Nanotube on the Mechanical and Thermal Properties of Polyurethane-Carbon Nanotube Nanocomposites.	ICAMMP-2006,	Feb.-2006
<b>N.G. Sahoo</b> , Y.C. Jung, and J.W. Cho	“In Influence of Polypyrrole and Carbon Nanotubes on the Thermo-Mechanical Properties of Polyurethane Matrix Composites”	The Korean Textile Conference, 38(2), 94, 2005.	2005
<b>N.G. Sahoo</b> , Y.C. Jung, N. S. Goo, J.W. Cho	“The Study of Electroactive Shape Memory Effect of Polyurethane filled with Carbon Nanotubes and Conducting Polymer”	The Polymer Society of Korea,	Oct., 2005.
<b>N.G. Sahoo</b> , Y.C. Jung, N. S. Goo, J.W. Cho	Conducting Shape Memory Polymer Materials for Electroactive Actuator”,.	ICEST-2005, Konkuk University, South Korea,P.42-45, May-2005	May-2005
<b>N.G. Sahoo</b> , Y.C. Jung, and J.W. Cho	“Electroactive Shape Memory Polyurethane-Polypyrrole Composites” The Korean Textile Conference, 38(1), 215, 2005.	The Korean Textile Conference, 38(1), 213, 2005.	2005
Y.C. Jung, <b>N.G. Sahoo</b> , and J.W. Cho	“Characterization of Carbon Nanotube-Polyurethane Networks with Shape Memory Effect”	The Korean Textile Conference, 38(1), 213, 2005.	2005
<b>N.G. Sahoo</b> , K.N. Pandey, G.N. Mathur, H.W. Jeong, C.S. Ha and C.K. Das	“Flow behaviour, dynamic properties and related morphology of PBT and LCP blends”,,	MACRO-2002,	Dec.-2002
<b>N.G. Sahoo</b> , A.B. Panda, P. Pramanik and C.K. Das	“Nanofiller as Crosslinker for Halogen Containing Elastomers”,	Asia Rub Tech Expo-2002,	Nov.-2002.
<b>N.G. Sahoo</b> and C.K. Das	“Self-Reinforcing Composites Based on Polyolefins, their Copolymer and Liquid Crystalline Polymer Blends	Asia Rub Tech Expo-2002, New Delhi, India, Nov.-2002.	Nov.-2002.
<b>N.G. Sahoo</b> , S. Chakraborty and C.K. Das	“Effect of E/P Ratio on Self-Reinforcing Character of LCP in EPDM/LCP Composite”.,	ICMAT-2001, Singapore	2001
<b>N.G. Sahoo</b> , K.B.	”Nano Polyolefins Composites	France-2001	Sept.-2001.

Panda, P. Pramanik and C.K. Das	and Their Characterization” Polymers in the Third Millenium- Montpellier,		
S. Chakraborty, N.G. Sahoo and C.K. Das	Self-Reinforcing Elastomer Composite Based on EPDM and LCP”,	PAT-2001, Eilat, Israel,	Sept.-2001.
N.G. Sahoo, K. N. Pandey, G.N. Mathur and C.K. Das	”Dynamic Failure and Related Morphology for Self-Reinforced Composites with the Help of SEM”	ICEM-15, Durban	Sept.-2000,.

**Projects (add row if required)**

<b>Title of the Project</b>	<b>Funding Agency</b>	<b>Amount (Rs)</b>	<b>Year</b>
PAVITRAM: Purification and Valorization through Indigenous Tailoring of Raw Polymeric waste into Advanced Multidimensional Carbon Nano Materials for Large Scale Energy Storage applications including Supercapacitors and Batteries	GBPNIHESD, NMHS, Kosi-Katarmal, MoEF&CC	1,905,00,000	April 2023 to March 2026
Scalable Synthesis of Graphene and its Derivatives from Rice Straw Waste and their Applications in Energy Storage and Water Purification	NRDC, Govt. of India	10,00,000	March 2023 to March 2024
AMRITAM: A Multidimensional Remediation and Innovative Tailoring of Materialistic Waste: An Innovative Approach for the Collection, Segregation and Upcycling of Solid Waste	GBPNIHESD, NMHS, Kosi-Katarmal, MoEF&CC and Municipal of Nainital	3,50,00,000	Nov. 2019 to Oct. 2022
Valorization of Refinery asphaltenic Residue: An Innovative Upcycling of petroleum asphalt into Carbon Nanomaterials	BPCL India	43,02,000	August 2021 to July 2023
Smart Synthesis of Carbon Nanomaterial Along With the Production of High Value Added Fuel and Additives for the Concrete Mixture from WASTE PLASTIC	GBPNIHESD, NMHS, Kosi-Katarmal, MoEF&CC	2,24,00,000	April 2016 to March 2020
Establishment of Nanoscience	MPLAD Fund	50,00,000	2015-2016



and Nanotechnology Centre @ Kumaun University	(Hon'ble M.P. Tarun Vijay), Uttarakhand		
Micro- and Nano-particle Design for Pharmaceutical Drug Preparation and Delivery Applications	NTU, Singapore	1,79,790.19	2009-2011
Simulation of Composite Material Moisture Exposure Using Elevated Temperature	SERC, A*STAR, Singapore	2,18,217.00	2013-2014

#### Teaching details (add row if required)

Name of the course/paper	Department	University	Year
Ph.D. Coursework	Kumaun University	Kumaun University	2019
M.Sc. (Physical Chemistry)	Department of Chemistry	Kumaun University	July 2013-Present
B.Sc. (Physical Chemistry)	Department of Chemistry	Kumaun University	July 2013-Present

#### Professional Memberships (add row if required)

Organization	Position	Year
Chemical Research Society of India (CRSI)	Life Member	Since March 2024
Materials Research Society of India (MRSI)	Life Member	Since July 2023
The Society for Polymer Science, India	Life Member	Since July 2023
Fellow of Royal Society of Chemistry (FRSC)	Life Member	Since 2020
Association of Institute of Fundamental and Frontier Sciences (IFFS),	Member	2020-2021.
The Korean Fiber Society, South Korea	Member	2005-2006
Royal Society of Chemistry	Member	2012- 2013

#### Honours and Awards

Award	Awarding Organization	Year
MRSI Medel 2023	Materials Research Society of India	2023
Prof. K.S. Valdiya Research Award for Research Articles	Kumaun University, Nainital	2023
Prof. D.D. Pant Research Award for Patents	Kumaun University Nainital	2023
Prof. Y.P.Pangti Award for Book Publication	Kumaun University Nainital	2023
J.C. BOSE Memorial Award, BioHeal 2023	IIT Roorkee	2023

<b>World's Top 2 % Most Influential Scientist 2023</b>	Stanford University, USA	2023
<b>Brand Ambassador, Swach Survekshan, Nainital</b>	Swach Survekshan, Nainital	2022
<b>Prof. D.D. Pant Research Award for Patents</b>	Kumaun University, Nainital	2022
<b>Prof. K.S. Valdiya Research Award for Research Articles</b>	Kumaun University, Nainital	2022
<b>Excellence in Research of the Year 2021</b>	Uttarakhand	2021
<b>Chief Guest: 'Azadi Ka Amrit Mahotsav' on the theme 'One week for Nation – Green Campus, Green Home</b>	Kurukshetra University	2021
<b>Fellow of Royal Society of Chemistry (FRSC)</b>	Fellow of Royal Society of Chemistry (FRSC)	Since 2020
<b>World's Top 2 % Scientist 2020 in Polymer, Nanoscience Category.</b>	Stanford University, USA) in Polymer, Nanoscience Category.	2020
<b>Uttarakhand Ratan Award</b>	Govt of Uttarakhand	2019
<b>Brand Ambassador: Bentham Science Publisher</b>	Bentham Science Publisher India	2019-2020
<b>8<sup>th</sup> National Awards for Technology Innovation from Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals</b>	Govt. of India	2018
<b>Uttarakhand Governor Award for best research</b>	Govt of Uttarakhand	2017
<b>BASE Fellowship, Department of Science and Technology, Govt. of India, and the Indo-U.S. Science and Technology Forum (IUSSTF)</b>	IUSSTF	2014
<b>Lee Kuan Yew (LKY) Fellowship 2008 (Most prestigious fellowship in Singapore</b>	Lee Kuan Yew (LKY) Singapore	2008

**Conference Presentations (add row if required)**

<b>Title of presentation</b>	<b>Conference name</b>	<b>Name of the institution</b>	<b>Year</b>
Conversion of Solid Waste into Two Dimensional Carbon Nanomaterials and Their	International Conference on Sustainable and	Siddharth University, UP, India	2024

Applications	Innovative Materials for Modern Life (ICSMML-2024)		
Waste to Wealth: A Green Approach to the Conversion of Solid Waste into Value-Added Products and Their Applications	International Conference on Nanomaterials and Devices for Energy and Environment (CANDEE-2023)	IITM, Gwalior, India	2023
Upcycling of Solid Waste Materials into Carbon Nanomaterials for Various Applications	An International conference on BioHeal-2023 (Biomaterials and Health Care 2023)	Rishikesh, INDIA	2023
Upcycling of Solid Waste into Smart Futuristic Multifunctional Materials: A Trash to Treasure Approach	Environmental Challenges for Sustainable Development	S.L.P. Govt. College Morar, Gwalior, India	2022



**Signature of the faculty member**