


Brief Biodata

Name: Saroj Kumari

Designation:	Principal Scientist	
DP No. and Name:	4.3, Advanced Carbon Products & Metrology	
DU No. and Name:	4, Advanced Materials & Devices Metrology	
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Date of Joining CSIR-NPL:	07-9-2009	
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Research Area/ Interest

- Development of carbon products: Light weight and porous carbon foam, CNT, flexible and free standing carbon paper, carbon fibers, High density graphite, mesocarbon microbeads (spherical carbon), C-C composites
- Nano-structured metal oxide thin films
- Electrocatalysis, Li ion battery, EMI shielding, etc

Educational Qualifications

(Please write latest qualification first)

Degree	Subject	University/ Institute	Year
Ph.D.	Physics (Material Science)	Dayalbagh Educational Institute, Agra, UP	2008
M.Sc.	Physics (Electronics)	Dayalbagh Educational Institute, Agra, UP	2001
B.Sc.	Physics	Dayalbagh Educational Institute, Agra, UP	1999

Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Jr. Scientist	CSIR-NPL	07-09-2009	06-09-2012	Carbon materials for energy, strategic and industrial applications
Scientist	CSIR-NPL	07-09-2012	06-09-2016	Carbon materials for energy, strategic and industrial applications
Senior Scientist	CSIR-NPL	07-09-2016	06-09-2020	Carbon materials for energy, strategic and industrial applications

Principal Scientist	CSIR-NPL	07-09-2020	Till now	Carbon materials for energy, strategic and industrial applications
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No. of Publications: 40

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
36	--	3	1	40

Selected Publications

1. Reticulated porous carbon foam with cobalt oxide nanoparticles for excellent oxygen evolution reaction, Shiv Prakash, Ravi Kumar, Pankaj Kumar, Sonu Rani, Khushboo Kumari, Saroj Kumari, Sanjay R Dhakate, Materials Chemistry and Physics, 275, 125131, 2022.
2. Rapid adsorption of arsenate from water on a novel hybrid of zirconia oxide anchored rGO functionalised carbon foam, Pinki Rani Agrawal, Nahar Singh, Ravi Kumar, Kushagra Yadav, Saroj Kumari, Sanjay R Dhakate, Colloid and Interface Science Communications, 40, 100350, 2021.
3. Fabrication of lightweight and porous silicon carbide foams as excellent microwave susceptor for heat generation, Saroj Kumari, Rajeev Kumar, Pinki R Agrawal, Shiv Prakash, DP Mondal, Sanjay R, Materials Chemistry and Physics, 253, 123211, 2020
4. Multi-component framework derived SiC composite paper to support efficient thermal transport and high EMI shielding performance, Anisha Chaudhary, Satish Teotia, Rajeev Kumar, Vinay Gupta, Sanjay R Dhakate, Saroj Kumari, Composites Part B: Engineering, 176, 107123, 2019.
5. The removal of pentavalent arsenic by graphite intercalation compound functionalized carbon foam from contaminated water, Pinki Rani Agrawal, Nahar Singh, Saroj Kumari, Sanjay R Dhakate, Journal of hazardous materials, 377, 274-283, 2019.
6. Thermal conductivity and fire-retardant response in graphite foam made from coal tar pitch derived semi coke, Rajeev Kumar, Hemant Jain, Anisha Chaudhary, Saroj Kumari, DP Mondal, AK Srivastava, Composites Part B: Engineering, 172, 121-130, 2019.
7. Scalable development of a multi-phase thermal management system with superior EMI shielding properties, Anisha Chaudhary, Rajeev Kumar, Sanjay R Dhakate, Saroj Kumari, Composites Part B: Engineering, 158, 206-217, 2019.
8. Excellent EMI shielding performance and thermal insulating properties in lightweight, multifunctional carbon-cenosphere composite foams, Rajeev Kumar, DP Mondal, Anisha Chaudhary, Muhamed Shafeeq, Saroj Kumari, Composites Part A: Applied Science and Manufacturing, 112, 475-484, 2018.
9. Integration of MCMBs/MWCNTs with Fe₃O₄ in a flexible and light weight composite paper for promising EMI shielding applications, Anisha Chaudhary, Rajeev Kumar, Satish Teotia, SK Dhawan, Sanjay R Dhakate, Saroj Kumari, Journal of Materials Chemistry C, 5, 322-332, 2017.
10. Lightweight and easily foldable MCMB-MWCNTs composite paper with exceptional electromagnetic interference shielding, Anisha Chaudhary, Saroj Kumari, Rajeev Kumar, Satish Teotia, Bhanu Pratap Singh, Avanish Pratap Singh, SK Dhawan, Sanjay R Dhakate, ACS Applied Materials & Interfaces, 8, 10600-10608, 2016.

Patents

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Current Activities

(Not more than 100 words)

- **Synthesis and characterization of carbon fibers using isotropic coal tar pitch and mesophase pitch**
- **Development of light weight and porous carbon foam for electrocatalysis water splitting**
- **Mesocarbon microbeads (spherical carbon) as anode of Li ion battery**
- **High density graphite**
- **CNT, flexible and free standing carbon paper**

Honour(s)/Award(s)/ Fellowship(s)

- **Awarded UGC's Dr. D.S. Kothari Post Doctoral Fellowship, December, 2008**

Contributions to AcSIR

Ph.D. and M.Sc. students

Membership of Professional Societies/ Institutions

Indian Carbon Society and The Metrology Society of India

Any other Information

(Not more than 100 words)