Detail Bio-data



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Educational Qualification	ons	
Degree	Institution	Year, Division
Ph.D.	Ph.D. (Chemistry), National Chemical Laboratory	January, 2007
	(NCL), Pune. Degree awarded by University of	
	Pune (presently Savitribai Phule Pune University)	
PG	M.Sc. (Chemistry), Gauhati University, Guwahati	2001, 1 st Div.
Career Profile		L
May 2019 – till date: As	sociate Professor, Department of Chemistry, Univers	ity of Delhi, Delhi-110007.

1st June, 2010 – May, 2019: Assistant Professor, Department of Chemistry, University of Delhi, Delhi.

Visiting Fellow, School of Physical Sciences (SPS), 2019, JNU, New Delhi.

Adjunct Faculty (October, 2017): Department of Chemistry, Islamic University of Science & Technology (IUST), Pulwama, Awantipora, Jammu and Kashmir, PIN-192122.

2009 - 2010: Senior Post Doctoral Researcher, Italian Institute of Technology (IIT), Genova, Italy.

2007 - 2009: Post Doctoral Researcher, National Nanotechnology Laboratory, Scuola Superiore ISUFI, University of Salento, Lecce, Italy.

2001 - 2002: Project Research Fellow, Institute of Advance Study in Science and Technology (DST-IASST), Guwahati, India.

Areas of Interest / Specialization

Inorganic chemistry; Manipulation at the Interface and crystal facets, Advanced nanomaterials for energy conversion and storage (sustainable development); Nanomaterials for catalysis.

Publications Profile

Total number of publications = 68 Peer reviewed international journal = 64 Research papers published in refereed international conference proceedings = 04 Peer reviewed national journal = 01 Books = 02 Patent = 02 Book chapter = 01

Google scholar Citations till date: ~3700, h-index: 33.

SI.	Authors (in order)	Title of the research paper	Name of the	Year,	Impact
No.	(* corresponding)		Journal	volume,	factor
				page	
				number	
1.	Kumar, L.; Antil, B.;	A Superior and Stable	ACS Appl.	2022, 14,	9.229
	Kumar, A.; Das, M. R.;	Electrocatalytic Oxygen	Mater.	5468–5477	
	Deka; Sasanka*	Evolution Reaction by One-	Interfaces		
		Dimensional FeCoP Colloidal			
		Nanostructures			
2.	Antil, B.; Kumar, L.; Das,	N-doped graphene modulated	Journal of	2022, 52,	6.583
	M.R.; Deka, Sasanka*	N-rich carbon nitride realizing a	Energy	104731	
		promising all-solid-state flexible	Storage		
		supercapacitor			
3.	J.; Muhommad, L.;	All-Solid-State Flexible	Batteries &	2022, 5(3),	7.093
	Kumar, P.K.; Baruah,	Symmetric Supercapacitor Based	Supercaps	e20210031	
	M.R.; Das,	on Morphology Oriented		4	
	Deka; Sasanka*	Amorphous Cu-Co-B Alloy			
		Nanosheets for Energy Storage.			
4.	Kumar, L.; Baruah, P. K;	CuCo-Layered Double Hydroxide	ACS Appl.	2021, 4,	5.097
	Borthakur, S.; Saikia, L.;	Nanosheet-Based Polyhedrons	Nano Mater.	5250-5262	
	Das, M. R.; Deka;	for Flexible Supercapacitor Cells			
	Sasanka*				
5.	Antil, B.; Kumar, L.;	One-Dimensional Multichannel	ACS Applied	2021, 4 (4),	6.024
	Ranjan, R.; Shenoy, S.;	g-C3N4.7 Nanostructure	Energy	3118-3129	
	Tarafder, K.; Gopinath,	Realizing an Efficient	Materials,		
	C. S.; Deka; Sasanka*	Photocatalytic Hydrogen			
		Evolution Reaction and Its			

Research papers published in Refereed/Peer Reviewed Journals

		Theoretical Investigations			
6.	Antil, B.; Ranjan, R.;	Directed Holey and Ordered g-	J. Mater.	2020, 8,	12.73
	Chinnakonda, G. S.;	C ₃ N _{4.5} Nanosheets by Hard	Chem. A,	13328-	
	Deka; Sasanka*	Template Nanocasting Approach		13339	
		for Sustainable Visible-Light			
		Hydrogen Evolution with			
		Prominent Quantum Efficiency			
7.	Kumar, L.; Chauhan, M.;	Coral Shaped Bifunctional	ACS Appl.	2020, 3(7),	6.024
	Boruah, P. K.; Das, M.	NiCo2O4 Nanostructure: A	Energy	6793–6804	
	R.; Hashmi, S. A.; Deka;	Material for highly Efficient	Mater.		
	Sasanka*	Electrochemical Charge Storage			
		and Electrocatalytic Oxygen			
		Evolution Reaction			
8.	Kumar, A.; Deka;	PdSn Hollow Alloy Nanoparticles	Applied	2020, 599,	5.706
	Sasanka*	Prepared by in-situ Galvanic	Catalysis A:	117575	
		Replacement Process for	General,		
		Exclusive Hydrogen Evolution			
		Reaction and Durable			
		Electrocatalysis			
9.	Chauhan, M.; Deka;	Hollow Cobalt Sulfide	ACS Applied	2019, 3,	6.024
	Sasanka*	Nanoparticles: A Robust and	Energy	977-986	
		Low-Cost pH-Universal Oxygen	Materials		
		Evolution Electrocatalyst			
10.	Kumar, L.; Boruah, P. K.;		ACS Appl.	2019, 11,	9.229
	Das, M. R.; Deka;	High-Voltage Operating Metal-	Mater.	37665-	
	Sasanka*	Oxide-Based Flexible	Interfaces	37674	
		Supercapacitor			
11.	Soni. K.; Chauhan, M.;	Hydrothermally Synthesized	Frontiers in	2019, 6,	3.515
	Deka; Sasanka*	CuCo2S4 Nanosheets as an Easily	Materials	273	
		Accessible and Convenient			
		Heterogeneous Catalyst for the			
		Sonogashira Cross-Coupling			
		Reactions			
12.	Antil, B.; Kumar, L.;	Direct thermal polymerization	ACS	2019, 7,	8.198
	Reddy, K. P.; Gopinath,	approach to N-rich holey carbon	Sustainable	9428-9438	
	C. S.; Deka; Sasanka*	nitride nanosheets and their	Chem. Eng.		
		promising photocatalytic H ₂			
		evolution and charge storage			
		activities			

13.	Chauhan, M.; Soni, K.;	A Promising Visible-Light Driven	J. Mater.	2019, 7,	12.73
13.	Karthik, E. K.; Reddy, K.	Hydrogen Production from	Chem. A,	6985-6994	12.75
	P.; Gopinath, C. S.;	Water on Highly Efficient	chem. A,	0505-0554	
	Deka; Sasanka*	CuCo ₂ S ₄ Nanosheets			
	Dena, Jasanna	Photocatalyst			
14.	Kush, P.; Deka;	Multifunctional Copper-Based	ChemNanoM	2019, 5,	3.154
14.	Sasanka*	Quaternary Chalcogenide	at,	373-402	5.154
	Jasanka	Semiconductors Toward	αι,	373 402	
		State-of-the-Art Energy			
		Applications			
15.	Kumar, L.; Chauhan, H.;		ACS Applied	2018, 1	6.024
13.	Yadav, N.; Yadav, N.;	nanoparticle electrode based	Energy	(12), p	0.024
	Hashmi, S. A.; Deka;	supercapacitor device with high	Materials	(12), p 6999–7006	
	Sasanka*	performances and long cycling	Waterials	0555-7000	
	Jasalika	stability			
16.	Kumar, M.; Chauhan,	Yolk Type Asymmetric Ag–Cu ₂ O	Zeitschrift für	2018, 233	1.356
10.	H.; Satpati, B.; Deka;	Hybrid Nanoparticles on	Physikalische	(1), 85-104.	1.550
	Sasanka*	Graphene Substrate as Efficient	Chemie	(1), 05 104.	
	Jusunku	Electrode Material for Hybrid	chemie		
		Supercapacitors			
17.	Das, S.; Mondal, P.;	A facile synthesis strategy to	New J. Chem.	2018, 42, p	3.591
	Ghosh, S.; Satpati, B.;	couple porous nanocubes of		7314-7325	
	Deka; Sasanka, Islam, S.				
	M.; Bala. T	excellent catalyst with enhanced			
		reactivity for the 'click reaction'			
		and carboxylation of terminal			
		alkynes			
18.	Deka, B.; Bhattacharyya	Ferrocene conjugated copper (II)	Applied	2018, 32,	3.581
	A.; Mukherjee, S.;	complexes of terpyridine and	Organometal	e4287.	
	Sarkar, T.; Soni, K.;	traditional Chinese medicine	lic Chemistry		
	Banerjee, S.; Saikia, K.	(TCM) anticancer ligands			
	K.; * Deka; Sasanka*	showing selective toxicity			
	Hussain, A*	towards cancer cells			
19.	Das, S.; Bhattacharjee,	Deposition of Au nanoparticles	New Journal	2018, 42:	3.591
	G.; Satpati, B.; Kumar,	inside porous CeO ₂ nanocubes	of Chemistry.	1379-1386	
	M.; Deka; Sasanka,	using Langmuir–Blodgett			
	Ghosalya, M. K.;	technique			
	Gopinath, C. S.; Bala, T				
20.	Chauhan, M.; Reddy, K.	Copper Cobalt Sulphide	ACS	2017, 7:	13.08
	P.; Gopinath, C. S.;	Nanosheets Realizing Promising	Catalysis.	5871-5878	
	Deka; Sasanka*	Electrocatalytic Oxygen			

		Evolution Reaction			
21.	Chauhan, H.; Singh, M. K.; Kumar, P.; Hashmi, S A.; Deka; Sasanka*	Development of SnS ₂ /RGO nanosheets composite for cost- effective aqueous hybrid supercapacitors	Nanotechnol ogy,	2017, 28: 025401	3.874
22.	Das, T.; Chauhan, H.; Deka; Sasanka* , Chaudhary, S.; Boruah, R.; Saikia, B. K*	Promising carbon nanosheet- based supercapacitor electrode materials from low-grade coals"	Microporous and Mesoporous Materials	2017, 253: 80-90.	5.455
23.	Deka, B.; Sarkar, T.; Banerjee, S.;* Kumar, A.; Mukherjee, S.; Deka; Sasanka* Saikia, K. K.;* Hussain* A	Novel mitochondria targeted copper(II) complexes of ferrocenyl terpyridine and anticancer active 8- hydroxyquinolines showing remarkable Q1 cytotoxicity, DNA and protein binding affinity	Dalton Transactions.	2017, 46: 396.	4.39
24.	Kumar, M.; Soni, K.; Satpati, B.; Gopinath C. S.; Deka, Sasanka*	Exploration of magnetically separable Ag@Ag _x Ni _y core/graded-alloy-shell nanostructures	Chem. Commun.	2016, 52, p 8737-8740.	6.22
25.	Chauhan, H.; Kumar, Y.; Dana, J.; Satpati, B.; Ghosh, H.N.; Deka, Sasanka*	Photoinduced ultrafast charge separation in colloidal 2- dimensional CdSe/CdS-Au hybrid nanoplatelets and corresponding application in photocatalysis.	Nanoscale	2016, 8, p 15802- 15812	7.79
26.	Kumar, M.; Soni, K.; Yadav, GD.; Singh, S.; Deka, Sasanka*	Surfactant directed Ag _{1-x} Ni _x alloy nanoparticle catalysed synthesis of aromatic azo derivatives from aromatic amines	Appl. Cat. A: General	2016, 525, p 50-58	5.706
27.	Chauhan, H.; Soni, K.; Kumar, M.; Deka, Sasanka*	Tandem Photocatalysis of Graphene-Stacked SnS ₂ Nanodiscs and Nanosheets with Efficient Carrier Separation.	ACS Omega	2016, 1 (1), p 127-137.	3.512
28.	Das, S.; Satpati, B.; Chauhan, H.; Deka, S.; Ghosalya, M.K.; Gopinath, C. S.; T. Bala,	Seeding of Au on CdSe/CdS nanoplates using Langmuir- Blodgett technique.	RSC Adv.	2016, 6, p 14658- 14665.	3.36

29.	Kush, P.; Deori, K.;	Efficient Hydrogen/Oxygen		2015, 3, p	12.73
23.	Kumar, A.; Deka,	Evolution and Photocatalytic Dye	J. Mater.	8098-8106	12.75
	Sasanka*	Degradation and Reduction of	Chem. A	0050 0100	
	Jusunku	Aqueous Cr(VI) by Surfactant	chem. A		
		Free Hydrophilic Cu2ZnSnS4			
30.	Deori, K.; Kalita, C.;	(100) surface exposed CeO ₂		2015, 3, p	12.73
50.	Deka, Sasanka*	Nanocube as Efficient	J. Mater.	6909-6920	12.75
	Deka, Jasalika	Heterogeneous Catalyst in	Chem. A	0505-0520	
		Tandem Oxidation of Benzyl	chem. A		
		Alcohol, para-Chlorobenzyl			
		Alcohol and Toluene to			
		Corresponding Aldehydes			
24		Selectively		2015 162	4 00 4
31.	Kush, P.; Deka,	Anisotropic kesterite		2015, 162,	4.094
	Sasanka*	Cu2ZnSnSe4 colloidal	Mater.	p 608-616	
		nanoparticles: Photoelectrical	Chem. Phys.		
		and photocatalytic properties.			_
32.	Chauhan, H.; Singh, M.	Synthesis of surfactant free SnS		2015, 5, p	3.36
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	Sasanka*	with better electrochemical	Advances	17235	
		properties towards			
		supercapacitor application			
33.	Das, S.; Satpati, B.;	Preferential growth of Au on		2014, 4,	3.36
	Chauhan, H.; Deka,	CdSe quantum dots using	RSC	64535-	
	Sasanka. Gopinath, C.	Langmuir–Blodgett technique	Advances	64541.	
	S.; Bala, T.				
34.	Kumar, M.; Deka,	Multiply twinned AgNi alloy	ACS Appl.	2014, 6, p	9.229
	Sasanka*	nanoparticles as highly active	Mater.	16071–	
		catalyst for multiple reduction	Interfaces	16081	
		and degradation reactions			
35.	Deori, K.; Gupta, D.;	Design of 3-Dimensionally Self-		2014, 4, p	13.08
	Saha, B.; Deka,	assembled CeO ₂ Nanocube as a	ACS Catalysis	3169-3179	
	Sasanka*	Breakthrough Catalyst for			
		Efficient Alkylarene Oxidation in			
		Water			
36.	Chauhan, H.; Kumar, Y.;	New synthesis of two-		2014, 6, p	7.79
	Deka, Sasanka*	dimensional CdSe/CdS	Nanoscale	10347-	
		core@shell dot-in-hexagonal		10354	
		platelet nanoheterostructures			
		with interesting optical			
		- · ·	1	•	1

37.	Kush, P.; Deka,	Photoelectrical properties of	J. of	2014,	2.253
	Sasanka*	surfactant free kesterite Cu₂ZnSnSe₄ hydrophilic nanocrystal ink and the stability in polar solvents	Nanoparticle Research	16:2600	
38.	Deori, K.; Ujjain, S.K.; Sharma, R. K.; Deka, Sasanka*	Morphology Controlled Synthesis of Nanoporous Co ₃ O ₄ Nanostructures and Their Charge Storage Characteristics in Supercapacitors	ACS Appl. Mater. Interfaces	2013, 5 (21), p 10665– 10672	9.229
39.	Deori, K.; Deka, Sasanka*	Morphology oriented surfactant dependent CoO and reaction time dependent Co ₃ O ₄ nanocrystals from single synthesis method and their optical and magnetic properties	CrysEngComm	2013, 15, p 8465-8474	3.545
40.	Kush, P.; Ujjain, S.K.; Mehra, N. C.; Jha, P.; Sharma, R. K.; Deka, Sasanka*	Development and Properties of Surfactant-Free Water- Dispersible Cu ₂ ZnSnS ₄ Nanocrystals: A Material for Low-Cost Photovoltaics	ChemPhysChe m	2013, 14, p 2793 – 2799	3.102
41.	Deori, K.; Gupta, D.; Saha, B.; Awasthi, S.K.; Deka, Sasanka*	Introducing Nanocrystalline CeO ₂ as Heterogeneous Environmental Friendly Catalyst for the Aerobic Oxidation of Para-xylene to Terephthalic Acid in Water	J. Mater. Chem. A	2013, 1, p 7091-7099	12.73
42.	Kush, P.; Mehra, N.C.; Deka, Sasanka*	Synthesis, characterization and optical properties of novel hierarchical flower like pyrite FeS2 particles for low cost photovoltaics.	Sci. Adv. Mater.	2013, 5(7) p 588-595.	1.474
43.	Vilvamani, N.; Deka, Sasanka; Gupta, T.	Transition metal ion-induced anisotropic architectures using 4,4'-dicarboxy-2,2'-bipyridyl-silver nanopetals	Adv. Mater. Lett	2013, 4(4), p 252-260	1.15
44.	Shankar, S. S.; Deka, Sasanka*	Metal nanocrystals and their applications in biomedical systems	Sci. Adv. Mater.	2011, 3(2): p169-195.	1.474
45.	Krahne, R.; Morello, G.; Figuerola, A.; George, C.; Deka,	Physical properties of elongated inorganic nanoparticles	Physics Reports	2011, 501(3-5): p 75-221	25.6

	Sasanka; Manna, L.				
46.	Deka, Sasanka; Miszta, K.; Dorfs, D.; Genovese, A.; Bertoni, G.; Manna, L.	Octapod-shaped colloidal nanocrystals of cadmium chalcogenides via "one-pot" cation exchange and seeded growth	Nano Lett.	2010, 10 (9): p 3770– 3776.	11.19
47.	Deka, Sasanka; Genovese, A.; Zhang, Y.; Miszta, K.; Bertoni, G.; Krahne, R.; Giannini, C.; Manna, L.	Phosphine-Free Synthesis of p- Type Copper(I) Selenide Nanocrystals in Hot Coordinating Solvents	J. Am. Chem. Soc.	2010, 132 (26): p 8912-8914.	15.42
48.	Deka, Sasanka*; Falqui, A.; Bertoni, G.; Sangregorio, C.; Morello, G.; Giorgi, M De.; Giannini, C.; Cingolani, R.; Manna, L.; Cozzoli, P. D.	Fluorescent Asymmetrically Cobalt-Tipped CdSe@CdS Core@Shell Nanorod Heterostructures Exhibiting Room-Temperature Ferromagnetic Behaviour	J. Am. Chem. Soc.	2009, 131 (35), p 12817- 12828	15.42
49.	Quarta, A; Ragusa, A.; Deka, Sasanka ; Tortiglione, C.; Tino, A.; Cingolani, R.; Pellegrino, T.	Bio-conjugation of rod-shaped fluorescent nanocrystals for efficient targeted cell labelling	Langmuir	2009, 25 (21), p 12614- 12622	3.882
50.	Deka, Sasanka*; Joy, P. A.	Single step synthesis and properties of M/MFe ₂ O ₄ and PVDF/M/MFe ₂ O ₄ (M = Co, Ni) magnetic nanocomposites	Sci. Adv. Mater.	2009, 1, p 262-268	1.474
51.	Deka, Sasanka; Quarta, A.; Lupo, M. G.; Falqui, A.; Boninelli, S.; Lanzani, G.; Morello, G.; Giorgi, M De.; Giannini, C.; Cingolani, R.; Pellegrino, T.; Manna, L.	CdSe/CdS/ZnS Double Shell Nanorods with High Photoluminescence Efficiency and Their Exploitation As Biolabelling Probes	J. Am. Chem. Soc.	2009, 131 (8), p 2948- 2958.	15.42
52.	Deka, Sasanka; Joy, P. A.	Superparamagnetic Nanocrystalline ZnFe2O4 with a Very High Curie Temperature	J. Nanosci. Nanotech.	2008, 8, p 3955-3958	1.354

53.	Sreeja, V.; Vijayanand,	Magnetic and Mössbauer	Hyperfine	2008, 189,	0.61
	S.; Deka, Sasanka; Joy,	spectroscopic studies of NiZn	Interact	p 99-107	
	P. A.	ferrite nanoparticles synthesized			
		by a combustion method			
54.	Deka, Sasanka; Joy, P.	Enhancement of the phase	J. Mater.	2007, 17,	6.626
	A.	transformation temperature of	Chem.	p 453-456	
		γ -Fe ₂ O ₃ by Zn ²⁺ doping			
55.	Deka, Sasanka; Joy, P.	Enhanced permeability and	J. Am. Cer.	2007,	3.784
	Α.	dielectric constant of NiZn ferrite	Soc.	90[5],	
		synthesized in nanocrystalline		p1494-	
		form by a combustion method		1499	
56.	Deka, Sasanka; Joy, P.	Synthesis and magnetic	Solid State	2007, 142,	1.804
	Α.	properties of Mn doped ZnO	Commun.	p 190-194	
		nanowires			
57.	Deka, Sasanka; Joy, P.	Ferromagnetism induced by	Appl. Phys.	2006, 89,	3.791
	Α.	hydrogen in polycrystalline	Lett.	p 032508	
		nonmagnetic Zn _{0.95} Co _{0.05} O			
58.	Deka, Sasanka;	Experimental comparison of the		2006, 74,	4.036
	Pasricha, R.; Joy, P. A.	structural, magnetic, electronic,	Phys. Rev. B	p 033201	
		and optical properties of	-		
		ferromagnetic and paramagnetic			
		polycrystalline $Zn_{1-x}Co_xO$ (x = 0,			
		0.05, 0.1).			
59.	Deka, Sasanka; Joy, P.	Characterization of nanosized	Mater.	2006, 100,	4.094
	Α.	NiZn ferrite synthesized by an	Chem. Phys.	p 98-101	
		auto-combustion method			
60.	M. Rajendran,	Size-dependent magnetic	J. Magn. &	2006, 301,	2.993
	Sasanka Deka, P. A.	properties of nanocrystalline	Magn.	p 212-219	
	Joy and A. K.	yttrium iron garnet powders	Mater.		
	Bhattacharya				
61.	Deka, Sasanka; Joy, P.	Direct observation of Ni metal	Chemistry of	2005, 17,	9.811
	Α.	impurities in lightly doped	Materials	p 6507-	
		ferromagnetic polycrystalline		6510	
		(ZnNi)O			
62.	Deka, Sasanka; Joy, P.	Electronic structure and	Solid State	2005, 134,	1.804
	Α.	ferromagnetism of	Commun.	p 665-669	
		polycrystalline Zn _{1-x} Co _x O			
		(0 <x<0.15).< td=""><td></td><td></td><td></td></x<0.15).<>			
63.	Deka, Sasanka;	Synthesis and ferromagnetic	Chemistry of	2004, 16, p	9.811
	Pasricha, R.; Joy, P. A.	properties of lightly doped	Materials	1168-1169	
		nanocrystalline Zn_1 - xCo_xO .			

64.	Deka, Sasanka; Joy, P.	Nanocrystalline Zinc ferrite with	MSI Bulletin	2004, 27, p	N/A	
	Α.	high magnetization at room		23-25		
		temperature				

Research papers published in Refereed/Peer Reviewed Conferences

- 1. Sasanka Deka and P. A. Joy. 2008. Studies on ZnO based diluted magnetic semiconductors. In proceedings *TMS Annual Meeting 3*, March 9-13, 2008, New Orleans, USA, 373-378. Warrendale, USA: TMS.
- Sasanka Deka, A. Falqui, C. Sangregorio, C. Giannini, R. Cingolani, L. Manna and P. Davide Cozzoli. Synthesis structural and magnetic properties of magnetic metal/semiconductor nanocrystals heterostructures. In proceedings *EMRS, Fall Meeting,* September 15-19, 2008, Warsaw, Poland, Warsaw: EMRS.
- 3. Sasanka Deka, S. K. Date and P. A. Joy. 2004. High magnetic aspects of nanosized NiZn ferrite powders synthesized by an auto combustion method. In proceedings *9th International Conference on Ferrites (ICF-9)*, August 23-27, 2004, San Francisco, USA, 149-154: Wiley-Blackwell.
- 4. **Sasanka Deka**, S. K. Date and P A Joy. 2004. Synthesis and magnetic properties of polycrystalline Co doped ZnO. In proceedings *9th International Conference on Ferrites (ICF-9)*, August 23-27, San Francisco, USA, 913-918: Wiley-Blackwell.

Patents/Books

Patent

- 1. "A process for producing aromatic carboxylic acids by oxidation of methyl arenes" **Indian Patent application No.** 1346/DEL/2013 dated 7th May 2013, Saha, B.; **Deka, S.**; Gupta, D.; Deori, K.
- "Octapod shaped nanocrystals and use thereof", U.S. Patent Application no. 13/196123. Case No: 4161-65. (02-08-2011) L. Manna, D. Dorfs, Miszta, K.; Deka, S.; Genovese, A. G. Bertoni, R. Brescia, S. Marras, Y. Zhang, R. Krahne, R. Cingolani.

Books/Monographs (Authored)

- 1. Krahne, R., Manna, L., Morello, G., Figuerola, A., George, C., **Deka, S.** 2013. Physical Properties of Nanorods. Springer publications, NanoScience and Technology series, *ISBN 978-3-642-36430-3*
- 2. Deka, S. 2011. Doped Transition Metal Oxide and Ferrite Nanocrystals. Lap Lambert Academic Publishing GmbH & Co. KG, Germany, *ISBN 978-3-8443-2306-1. (sole author)*

Book Chapter (Authored)

 Chauhan, H., Deka, S. 2021. Supercapacitors based on two-dimensional transition metal dichalcogenides and their hybrids. Chapter in "Fundamentals and Supercapacitor Applications of 2D Materials" Ed. Chandra Sekhar Rout & Dattatray J. Late. Elsevier, Radarweg 29, PO Box 211, 1000 AE Amsterdam, Netherlands. *ISBN: 978-0-12-821993-5*

Awards and Distinctions

- a) Certificate of appreciation **RSC Highly cited author as one of the top 5% most cited authors** in Royal Society of Chemistry journals, UK, 2020
- b) International Innovation & Research Excellence Award 2021, Center for Professional Advancement (CPACE), A Unit of IMRF with NITI Aayog, Vijaywada, AP.

- c) IOP Publishing Top Cited Paper Award-2020 (India) as one of the most cited articles from India published across the entire IOP Publishing journal portfolio in the past three years (2017 to 2019). Institute of Physics (IOP) publishing, Bristol, BS1 6HG, UK.
- d) **VIFA**-Chennai outstanding faculty (Chemistry) award 2019.
- e) **Best speaker (oral)** in RSC workshop on Chemistry for tomorrow's world, December 2-3, 2015 at New Delhi by Royal Society of Chemistry, London.
- f) Honorary Member, American Chemical Society (2015-2018).
- g) **DAE-BRNS Young Scientist Award-2011** by Department of Atomic Energy, Board of Research in Nuclear Sciences, Govt. of INDIA.
- h) **Invited** as '**Young Scientist**' in 'National Seminar on Recent advances in synthesis and catalysis' (RASC-11) during 10-12th Feb 2011, Dibrugarh University, Dibrugarh, Assam.
- i) **TMS Foundation SHRI RAM ARORA AWARD**, The Minerals, Metals & Materials Society (TMS), Warrendale, PA 15086-7514, USA, 2008.
- j) Award of Junior/Senior Research Fellowship (**JRF/SRF-NET**) by UGC-CSIR, Govt. of India, New Delhi, 2002-2004-2007.
- k) **Best Poster Award**, National Science day poster presentation, NCL Research Foundation, National Chemical Laboratory, Pune, India, 2006.

I) Award of National Level merit Scholarship by AICTE, Govt. of India, 1993-1995.

Invited talk/plenary talk/Resource person

- Resource person "<u>Recent Advances in Material Science for Sustainable Development in Energy</u> <u>Applications</u>" 16-28 February, 2022. celebration of **National Science Day**, Department of Chemistry, Indira Gandhi University, Meerpur Rewari in collaboration with Department of Physics, Kurukshetra University, Kurukshetra, Under the liaison of Azadi ka Amrit Mahotsav.
- Invited talk: <u>Advanced Nanomaterials for Water Splitting Reaction</u>, International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST – 2022), 29-01-2022, Department of Science and Humanities, **NIT Nagaland**, Nagaland, India.
- Resource person: <u>Nanomaterials and their use in Electrochemical water splitting- Hydrogen/oxygen</u> <u>evolution</u> FDP, 19th Refresher Course in Physical Sciences & Nano Sciences, 19-01-2022, UGC-HRDC, JNU New Delhi.
- Invited talk : <u>Nanostructured mixed metal oxides and layered double hydroxides and their charge</u> <u>storage characteristics</u> 14th National Conference on Solid State Ionics (NCSSI-14), 16-18th December, 2021, **Department of Physics and Astrophysics, University of Delhi**, Delhi
- Resource person: "<u>Designing of electrodes for supercapacitor application, their study using electrochemistry from basic to calculation/data analysis</u>." Online Short Term Certificate Course on Electrochemistry from Basics to Applications, electrochemkuk Module 2, 11th July 2021, Kurukshetra University, Kurukshetra.
- 6. Resource person: <u>"Electrochemical water splitting- Hydrogen/oxygen generation</u>" Online Short Term Certificate Course on Electrochemistry from Basics to Applications, electrochemkuk2021, 21st June -

25th June, 2021 Kurukshetra University, Kurukshetra.

- Invited talk: "Usefulness of nanostructured materials in energy conversion and storage" "Nano Era" Nanotechnology for Global, 7-11th June, 2021, Amity Institute of Nanotechnology, Amity University, Uttar Pradesh.
- 8. Invited talk: <u>'Nanomaterials: Synthesis diverseness'</u>, Indo US Webinar and Lecture Series, MHRD SPARC, Jamia Milia Islamia, June 1-9, 2021.
- Invited talk: "<u>Electrochemistry: Electrodes And Electrochemical Cells</u>" at Three weeks Lecture Series(Virtual) On Chemistry Education, organized by Department of Chemical Sciences, **Tezpur** University, Tezpur, Assam, India during 28th January to 18th February 2021.
- Invited talk: "<u>Usefulness of nanostructured catalyst materials in water splitting reaction</u>" at ChemCatCon 1.0 - Reactions on Surface" (online) hosted by **IIT Gandhinagar**. 11th and 12th July 2020.
- Invited talk: "Basics of Nanoscience and its applications" at 'An online workshop cum Guest lecture series on Chemistry Education for undergraduates' (online) organized by Sibsagar College, Dibrugarh University, Assam. 18th December, 2020.
- Invited talk: "<u>Use of Nanostructured Materials for Sustainable Energy</u>" (online) at National Seminar "Science for Sustainable Development" organized by **B. Borooah College, Gauhati University**, Guwahati. September 25-26, 2020.
- Invited talk: "<u>Nanostructured metal oxide and chalcogenide materials for energy conversion and energy storage applications</u>" International Conference on Engineering Sciences & Technologies for Environmental Care (ESTEC-2020), organized by CSIR-North East Institute of Science & Technology (NEIST), Jorhat, Assam, India during February 20-22, 2020.
- Invited talk/Resource person: <u>"Nanomaterial synthesis: Challenges and safety concerns Environment and Nanosafety in DRDO Laboratories</u>" 18th February, 2020. The Centre for Fire, Explosive and Environment Safety (CFEES), DRDO, Delhi.
- Invited talk / Special lecture series on Analytical Techniques: <u>"Nanochemistry and useful</u> <u>instrumentation Transmission and scanning Electron Microscopy"</u> D/o Chemical Sciences, **Tezpur University**, Tezpur, 20th January: 2020.
- Invited talk: "<u>Nanostructured Functional Materials for Energy Conversion and Energy Storage</u> <u>Applications</u>". National Conference on Advance Functional Materials-2019 NCAFM, November 20-21, Jamia Millia Islamia, New Delhi
- Invited talk/Resource person: <u>Basics of Nanochemistry and its application in Energy sectors</u>. UGC-Human Resource Development Centre, 8th November. Jamia Millia Islamia, 7Th 2 Week Refresher Course in Basic Sciences (Interdisciplinary Sciences). 5th November to 19th November 2019
- Invited talk: <u>Introduction to Nanoscience</u>. Miranda House College, Delhi University. 21st October, 2019
- Resource person: NCERT 'Customised Training of Teachers Teaching at Secondary and Secondary Specialised High Schools of Uzbekistan on STEAM and IFP'. <u>Teaching Chemistry at Secondary and</u> <u>Higher Secondary Stages and Practicals in Chemistry</u>. September 27, 2019. **IRD, NCERT**, New Delhi.
- 20. Invited talk: "Energy conversion and energy storage applications: Usefulness of nanostructured materials" at National Conference on Green, Sustainable and Evolving Sciences (GSES-2019) & 64th

Annual Technical Session of Assam Science Society June 28-29, 2019; Cotton University, Guwahati, Assam.

- 21. Invited talk: "<u>Development of 2D nanostructured materials for catalysis and energy storage</u> <u>applications</u>" at Frontiers in 2D materials from Basic Science to Real time Applications, 13th - 16th March 2019, **Jain University, Bengaluru**.
- Invited talk: "<u>Development of nanostructured metal chalcogenide and oxide particles for catalysis</u> and energy storage applications" in Half-a-day meeting/symposium at the Department of Chemistry, BITS Pilani, Pilani Campus, Rajasthan, on 9th March, 2019.
- 23. Invited talk: <u>"Development of nanostructured metal chalcogenide particles for electrochemical energy conversion and metal oxide particles for electrochemical energy storage applications</u>" at Indo-UK Newton-Bhabha Workshop on Electrochemical Routes to Energy Storage, Energy Conversion and Fuel Production" December 10-13th, 2018 at JNCASR, Bangalore, India.
- 24. Invited talk: <u>"Inorganic Nanomaterials for Catalysis, Energy Conversion and Storage: A Brief selected</u> <u>overview from the PI`s Lab</u>" Leibniz University Hannover (LUH), Germany-India workshop on strategic partnership, 3rd–6th December 2018 at **Leibniz University Hannover**, Hanover, Germany.
- 25. Invited talk: <u>"Introduction to Nanoscience"</u> at **Miranda House college**, University of Delhi, 31st October, 2018.
- 26. Invited talk: <u>"Copper Cobalt Sulphide Nanosheets Realizing Promising Electrocatalytic Oxygen</u> <u>Evolution Reaction</u>" at One-day discussion meeting on Chemistry of Nanomaterials, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore, on 17th July, 2018.
- 27. Invited talk: "<u>Nanostructured inorganic materials and their applications</u>" TEQIP-III sponsored Faculty Development program "Polymer Analysis and Applications: Current Scenario, 4-8 June, 2018, Department of applied Chemistry, Delhi Technical University, Delhi-42
- Invited talk: <u>"Development of transition metal based alloy and chalcogenide nanoparticles and their</u> <u>emerging applications</u>" at March Meeting, 16-17 March, 2018. School of Physical Sciences, Jawaharlal Nehru University, New Delhi-110067, India.
- Invited talk: <u>"Ag_{1-x}Ni_x alloy nanoparticles and CuCo₂S₄ nanosheets and their useful catalytic Applications</u>" at International Conference on Nanobiotechnology, February 5-6, 2018, Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, Jamia Nagar, New Delhi 110025.
- Plenary talk: <u>"Metal alloy and chalcogenide nanoparticles for few useful catalytic applications"</u>, at International Conference on Nano- and Functional Materials: Interface between Science and Engineering (NFM-2017), 16-18 November 2017, **BITS-Pilani**, Pilani Campus, Rajasthan.
- 31. Invited talk: <u>"Nanoscience and Nanotechnology"</u> Department of Chemistry, **Miranda House**, DU, November 6, 2018.
- 32. Memorial lecture: <u>Dr. C.K. Khurana Memorial</u> lecture for Rasgandhayan, **Gargi College**, DU, September 6 2017.

- 33. Invited talk: <u>"Exploration of multiply twinned AgNi alloy nanoparticles as highly active catalyst for multiple transformation reactions</u> at International Conference on Catalysis and Chemical Engineering" (CCE-2017), February 22-24, 2017 Baltimore, USA. Organized by the: United Scientific Group, 2088 B2 Walsh Avenue Santa Clara, CA 95050, USA.
- Invited talk: <u>"Exploration of unique two dimensional CdSe/CdS core@shell hexagonal</u> <u>nanoheteroplateles and CdSe/CdS-Au hybrid nanocrystals</u> at The International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) 11-15, December 2016, **IISc-Bangalore**, INDIA. (14-12-2016).
- 35. Invited talk: <u>"Exploration of Ag_xNi_y alloy and Ag@Ag_xNi_y core/graded-alloy-shell nanostructures in <u>catalytic applications</u>" at International Conference on Technologically Advanced Materials and Asian Meeting on Ferroelectricity, ICTAM-AMF10, November 7-11, 2016. **University of Delhi**. (9-11-2016)</u>
- Invited talk: <u>"Inorganic Nanoparticles: Synthesis, Characterization and Multifunctional applications"</u> at the FUB-DU Joint Research Workshop on Supramolecular Chemistry and Nanoscale Systems, Freie Universität Berlin, Berlin, Germany. June 8-10, 2016
- 37. Invited talk: :<u>(emphasis on academics and research for undergraduate students)</u> "NanoScience: <u>Big Word of small Things</u>" Kirori Mal College (KMC), University of Delhi, January 23, 2016.
- Invited talk: <u>"Multifunctional applications of few nanostructured inorganic materials"</u> International Conference on Advanced materials-- Energy, Environment and Health (ICAM- 2016) March 04-07, 2016, Department of Chemistry, Indian Institute of Technology-Roorkee (IIT-Roorkee).
- Invited talk: <u>"Development of CeO₂ nanocube and Cu₂ZnSnS₄ nanoparticles for multifunctional applications</u> International Conference on Materials Science & Technology (ICMTECH)-2016, Conference Centre, University of Delhi, India, 01st 04th March, 2016 (by IAAM, VBRI press and DU)
- 40. Invited talk: <u>"Synthesis, characterization of multifunctional applications of inorganic nanomaterials</u>" Leibniz Universität Hannover, Hannover, Germany. December 10, 2015.
- Resource person: <u>"Application of Nanotechnology in Environmental Remediation</u>", 18th June 2015, Refresher course in Disaster Management & Environmental Studies ID (I), UGC-Human Resource Development Centre, **Gauhati University**, Guwahati-14.
- 42. Invited talk: <u>"Morphology oriented nanocrystals for catalytic and energy applications</u>" at 2nd Indo-German Workshop on Supramolecular Chemistry, March 30th, 2015, **University of Delhi**.
- 43. Plenary Talk<u>: "Multifunctional Inorganic Nanocrystals: Synthesis, characterization and applications"</u> Seminar on nanochemistry, **Sam Higginbottom Institute of Agriculture, technology and sciences**, Allahabad, UP. 11-12 Nov, 2014.
- 44. Invited talk: <u>"Synthesis, characterization and applications of multifunctional inorganic nanoparticles</u>" NanoSci-2014, **DST- Institute of Advanced Study in Science and Technology** (IASST), Guwahati, Assam. 20-21 December 2014.
- 45. Invited talk "Nanomaterials as highly active catalyst for multiple significant reactions" at Italian

Institute of Technology, Genova, Italy on 21-29 June, 2014.

- 46. Invited talk: <u>1st International Conference on Emerging Trends of Nanotechnology in Drug Discovery</u>, 26-27 May 2014, Sri Venkateswara College, University of Delhi and Department of Biochemistry, University of Delhi South Campus.
- Resource person: <u>"Nanomaterials by solution based chemical synthesis procedures</u>," 20th May 2014, Refresher course in Basic Sciences (Interdisciplinary), UGC-Academic Staff College, Jamia Millia Islamia, New Delhi.
- Invited talk: <u>Science Academies Lecture-Workshop</u> Nanotechnology and its application, 18-20 January 2013 in MMME college, Gorakhpur, U.P. Organized by NASI Allahabad, INSA Delhi, IAS Bangalore.
- 49. Invited talk: <u>Indo-German workshop on "New Perspectives for Nano-carriers in Biomedical</u> <u>Applications"</u> 14th January 2013, Department of Chemistry, **University of Delhi**.
- 50. Invited expert talk: <u>Vigyan Prasar EduSAT network</u>, **DST, Govt. of India** on "Nano Technology an Introduction" on 24th January 2013 during 10.30 AM to 1.00 PM at C-24 Qutub Institutional Area New Delhi-110016, for the students of class XI and XII.
- 51. Invited talk: <u>Career and Higher Education</u>, 4th June 2012, Seminar: Career Prospect in Higher Education, Career guidance cell, **Pub-Kamrup College**, Baihata Chariali, Kamrup, Assam.
- 52. Resource person: <u>NanoScience and its applications in Biotechnology</u>, 5th May 2012, Refresher course in Basic Sciences (Interdisciplinary), UGC-Academic Staff College, **Jamia Millia Islamia**, New Delhi.
- 53. Invited talk: <u>Nanoscience and Nanotoxicology</u>, 22nd February 2012, **Solid State Physics Laboratory** (SSPL)-DRDO, Delhi.
- 54. Resource person: <u>NanoScience and its applications in Biotechnology</u>, 16th June & 19th June 2011, Refresher course in Basic Sciences (Interdisciplinary), UGC-Academic Staff College, **Jamia Millia Islamia**, New Delhi.
- 55. Invited talk: <u>"Multifunctional Hybrid Nanocrystals: Synthesis, Characterization and Applications</u>" at National Seminar on Recent advances in synthesis and catalysis (RASC-11) during 10-12th Feb 2011, **Dibrugarh University, Dibrugarh**, Assam. (10th Feb)
- 56. Special talk: <u>NanoScience: Big Word of small Things</u>, 10th September 2010, Department of Chemistry, **University of Delhi**, Delhi.
- 57. Invited talk: <u>Nanochemistry: Basic Understanding and Applications</u>, 28th June 2010, **B. Borooah College**, Guwahati.

Conference Presentations as Paper/Oral/Poster

- Deka, S, 2015. Synthesis, characterization and applications of CeO₂ nanocube and Cu₂ZnSnS₄ nanoparticles in green chemistry, *RSC workshop on Chemistry for tomorrow's world*, December 2-3, 2015 at New Delhi by Royal Society of Chemistry, London.
- 2. Deka, S. 2014. Nanoporous CoO and Co₃O₄ Nanostructures and Their Charge Storage Characteristics

in Supercapacitors. Paper presented at 2014 MRS Spring Meeting, April 21-25, Moscone West Convention Center, San Francisco California, USA.

- Deka, S. 2014. Development, characterization and studies of metal chalcogenide (Cu₂ZnSnS₄) and metal oxide (Co₃O₄) nanomaterials for energy applications. Paper presented at *6th International Conference On Nano Science And Technology (ICONSAT-2014)*, March 2-5, 2014, INST, Mohali, Chandigarh.
- Deka, S. 2013. Nanocrystalline CeO₂ as Heterogeneous Environmental Friendly Catalyst for the Aerobic Oxidation of Para-xylene to Terephthalic Acid in Water. Paper presented at *3rd International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2013)*, Dec 1-3, 2013, IIT-Guwahati.
- 5. Deka, S. 2012. Environment friendly hierarchical flower like pyrite FeS2 ink for low cost photovoltaics. Paper presented at the *INDO-GERMAN Workshop on Advanced Materials for Future Energy Requirements*, November 29-30, 2012, Conference Centre, University of Delhi, Delhi.
- Deka, S. 2012. Synthesis and characterization of two phases of cobalt oxide nano- and micro-particles and their applications. Paper presented at the *International Conference and Workshop On Nanostructured Ceramics and other Nanomaterials (ICWNCN) 2012*, March 13-16, 2012, Conference Centre, University of Delhi, Delhi.
- Deka, S. 2011. Synthesis of Hierarchical Pyrite FeS₂ flower like particles for low cost photovoltaics. Paper presented at the 2nd Indo-Italian Workshop on Electrochemistry for Future Energy Solutions IIWEc 2011, Nov. 30th-Dec 3rd, 2011, Department of Chemistry, University of Delhi, Delhi.
- 8. Deka, S. 2011. Multifunctional Hybrid Nanocrystals: Synthesis, Characterization and Applications. Paper presented at the *INDO-US Meeting on New Functional Materials: Synthesis, Properties and Methods* (*IUSSTF*), June 2-7, 2011, Hotel Manu Allaya, Manali, Himachal Pradesh.
- 9. Deka, S. 2011. Multifunctional Hybrid Nanocrystals: Synthesis, Characterization and Applications. Paper presented at the *National Seminar on Recent Advances on Synthesis and Catalysis 2011 (RASC-11)*, February 10-12, 2011, Dibrugarh University, Dibrugarh, India
- Deka, S. 2010. Synthesis of cuboctahedron shaped Cu_{2-x}Se nanocrystals and transforming them to Cadmium Chalcogenide multipods via quantitative cation exchange reaction. Paper presented at the *International Interdisciplinary Science Conference-2010*, December 2-4, 2010, Jamia Millia Islamia, New Delhi, India
- 11. Deka, S. 2008. Synthesis, structural and magnetic properties of magnetic metal/semiconductor nanocrystals heterostructures. Paper presented at the *E-MRS 2008 Fall Meeting*, September 15-19, 2008, Warsaw, Poland.
- 12. Deka, S. 2008. CdSe/CdS/ZnS core-shell-shell nanorods with high quantum efficiency. Paper presented at the 2nd International Conference on Advanced Nanomaterials (ANM 2008) June 22-25, 2008, Aveiro, Portugal.
- 13. Deka, S. 2008. Bifunctional magnetic metal/ semiconductor nanocrystal heterostructures. Paper

presented at the NANAX3, May 21-23, 2008, Lecce, Italy.

Extramural (National/International) research projects undertaken

- 1. "Development of nanostructured mixed metal oxide and metal chalcogenide materials based effective electrodes and their use in supercapacitor devices" *funded by TMD-DST (Department of Science and Technology, India), 2019-2022.*
- 2. "Development of advanced nanomaterials for benchmark electrocatalytic hydrogen and oxygen evolution from water" *funded by SERB-DST (Science and Engineering Research Board), 2017-2020.*
- 3. "Synthesis, characterization and advanced multifunctional applications of novel chalcogenide semiconductor nanocrystals" *funded by CSIR (Council of Scientific and Industrial Research), New Delhi, 2014-2018.*
- 4. "Synthesis, characterization and evaluation of anticancer activity of novel bioessential transition metal complexes having tumor targeting and antitumor active ligands" *funded by DBT (Department of Biotechnology), 2014-2018.*
- 5. "Synthesis, characterization, porous assembly and application of novel metal-metal oxide hybrid nanocrystals" *funded by SERB-DST, 2012-2025*.
- 6. "Studies on the optical and magnetic properties of semiconductor-magnetic oxide hybrid nanocrystals" *funded by BRNS-BARC-DAE (department of Atomic Energy), 2012-2015.*
- 7. "Synthesis and studies of the optical, plasmonic and magnetic behavior of Ni/Ag-semiconductor hybrid nanostructures" *funded by DST-DAAD (German Academic Exchange Service, Indo German), 2014-2016.*
- 8. "Complex nanostructures and their applications in optics, photonics and electronics" *funded by DST Purse grant, 2011, 2015, 2016.*
- 9. University of Delhi Institute of Excellence (IoE) minor project 2021 and 2022.

Subjects Taught at University of Delhi

M.Tech. (Nanoscience and Nanotechnology)

NSNT-103: Photochemistry, Surface phenomena and catalysis, Phase transformation

NSNT-204: Synthesis and Characterization of Nano Materials, Physical methods, Chemical methods.

NSNT-301: Material Science

NSNT-402: Properties of Nanomaterials

NSNT-205: Chemistry Practical

M. Sc. Chemistry Final (Theory Course A, paper 301)

Inorganic Reaction Mechanisms; Molecular rearrangement processes

M. Sc. Chemistry Final (Practical course)

Instrumental techniques in Inorganic chemistry, Projects

M. Sc. Chemistry Previous: Inorganic chemistry paper 201 course B: Chemistry of 'd' & 'f' block elements

M. Sc. Chemistry Previous: Practical: Inorganic chemistry

Ph.D. Course work (Unit 23): Inorganic reaction mechanisms

Ph.D. Course work: Nanochemistry

Ph.D. Course work: Research Methodology

Research Guidance

Ph.D. degree awarded: 05

Students: (i) Dr. Priya Kush (UGC-JRF), (ii) Dr. Kalyanjyoti Deori (UGC-JRF), (iii) Dr. Himani Chauhan (UGC-JRF), (iv) Dr. Mukesh Kumar (CSIR-JRF), (v) Dr. Meenakshi Chauhan (CSIR-JRF).

Ph.D. thesis submitted: 01 (Mr. Lakshya Kumar, UGC-JRF)

Supervision of Doctoral Thesis, under progress: 04

Students: (i) Ms. Amat-Alrahman Ahmed Yehya Othman, Yemeni student, international fellowship; (ii) Ms. Bindu Antil, CSIR-JRF; (iii) Mr. Ankur Dhiman, CSIR-JRF; (iv) Md. Javed, CSIR-JRF, (v) Mr. Abhinav Yadav, CSIR-JRF.

Postdoctoral researcher/Research associate: 02 Dr. Kiran Soni, CSIR-RA (completed), Dr. Dharmendra Yadav, DSK fellow

Project JRF: 03

Supervision of M.Tech/M.Sc. dissertation (6 months): 18

(students from Amity Institute of Nanotechnology, UP; University of Delhi; Amity University Haryana; NIT Rourkela; Cotton College, Guwahati; GUIST, Gauhati University, Guwahati; Central University of Haryana)(summer/winter project/dissertation: students from IISER-Kolkata, IISER-Bhopal and Delhi University colleges).

Association With Professional Bodies

Memberships

Life member: Chemical Research Society of India (CRSI). LM 1917

Life member: Materials Research Society of India (MRSI). LMB2254

Honorary Member, American Chemical Society (2015-2018).

Life Member: Electron Microscope Society of India. LM 893

Administrative Assignments

- External member of the Board of Studies of the Faculty of Physical, Chemical & Mathematics Sciences of the Cotton University, Panbazar, Guwahati-781001, Assam.
- External member of the Board of Studies for M.Sc. (applied chemistry) of the MIT- ADT University, Pune, Rajbaug, Loni Kalbhor, Pune 412 201, India. (2021-2022).
- Executive council member, Electron Microscope Society of India (2020-2022)
- Committee Members of Formulation of Courses under UGCF 2022, UGC-NEP, University of Delhi.
- Council member, committee of Courses for Post-Graduate Including Honors and Under- Graduate studies Chemistry, University of Delhi. (2021-2023)
- Member of the Department Bill Committee (2021-2022)
- Departmental NAAC committee and compiling data (2021-2022)
- Member of Delhi University QS ranking committee, University of Delhi.
- Member of the Advisory committee of the University Science Instrumentation Centre (USIC), University of Delhi (2021-2022)
- Member of the Special Task Force for Global Ranking, University of Delhi.
- Member of the core advisory committee for Alumni affairs office (AAO), University of Delhi.
- Superintendent of Examination-NSNT;
- Member Seminar Committee Chemistry;
- Member departmental and USIC instrument committee;
- Convener of NSNT conference;
- Deputy convener centralized evaluation Centre (2013)
- Departmental Nodal officer for North-East Students.
- Convener Inorganic section.
- Member of UGC-SAP II for department (2017-2020).
- Member of departmental Anti Ragging Committee (2017-2020).

Other contributions

Review Editor on the Editorial Board of Frontiers in Nanotechnology. Review Editor on the Editorial Board of Frontiers in Chemistry. Review Editor on the Editorial Board of Frontiers in Energy Research

Review Editor on the Editorial Board of Frontiers in Energy Research.

I declare that the above particulars are correct to the best of my knowledge.

Place: Delhi Date: 06-05-2022

(Sasanka Deka)