

CURRICULUM VITAE

Current positions and address for correspondence:

Name: Dr. Krishanu Sarkar

Designation: Associate Professor

Specialization: Inorganic Chemistry

Department of Chemistry

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Manasa Abasan

Sarada Apartment,

North Rabindra Pally, Ward No. 19,

Arambagh, Hooghly, Pin-712601, West Bengal

Biographical Data:

Date of Birth : April 5, 1979

Marital Status : Married

Sex : Male

Nationality : Indian

Professional Experience:

My field of research interest is materials chemistry. Specific fields include: (a) Design and syntheses mesoporous and microporous materials mainly phosphate, silicates and oxide based materials (b) Synthesis of catalysts using silica support by post-synthetic immobilization of inorganic complexes as well as by in situ grafting, (c) Adsorption

properties of nanoporous materials for gas storage application (H_2 gas) ranging pressure from low to high, (d) Design, synthesis of functionalized mesoporous materials and their potential application towards the selective sensing particularly interested in sensors for zinc (Zn^{2+}), (e) Liquid phase catalytic reactions using these microporous and mesoporous solids as catalyst.

Educational Background:

- July 2011-June 2012** : Postdoctoral Research at Polytechnic University of Valencia, Spain
- August 2004-April 2010** : Ph.D. from Jadavpur University: Doctoral research in the area of “Nanoporous Phosphates And Silicates: Syntheses, Characterizations And Potential Applications”
- 2003** : M.Sc. in Chemistry (Inorganic Chemistry as Special) from Burdwan University, India
- 2001** : B.Sc.(Honours) in Chemistry from Burdwan University, India

Awards and Honors:

- 2003** : Awarded CSIR-UGC NET for Junior Research Fellowship in Chemical Sciences in December, 2003.
- 2004** : Qualified GATE, 2004.
- 2004** : Awarded CSIR-UGC NET for Junior Research Fellowship in Chemical Sciences in June, 2004.
- 2008** : Member of Indian Physical Society, India.

PUBLICATIONS:

Research Articles:

1. A new extra large pore organic-inorganic hybrid silicoaluminophosphate: **Krishanu Sarkar**, Subhash Chandra Laha and Asim Bhaumik

Journal of Materials Chemistry 25 (2006) 2439-2444, Impact Factor =11.30, Citation=8

2. Enhanced emission from single component organic core-shell nanoparticles: Koushik Dhara, **Krishanu Sarkar**, Partha Roy, Asim Bhaumik and Pradyot Banerjee

Journal of Nanoscience and Nanotechnology 7 (2007) 4311-4317, Impact Factor =1.134, Citation=1

3. Mesoporous hybrid zirconium oxophenylphosphate synthesized in absence of any structure directing agent: **Krishanu Sarkar**, Toshiyuki Yokoi, Takashi Tatsumi and Asim Bhaumik

Microporous and Mesoporous Materials 110 (2008) 405-412, Impact Factor =4.551, Citation=21

4. Enhancement in microporosity and catalytic activity on grafting silica and organosilica moieties in lamellar titanium phosphate framework: **Krishanu Sarkar**, Mahasweta Nandi and Asim Bhaumik

Applied Catalysis A: General 343 (2008) 55-61, Impact Factor =5.706, Citation=12

5. A porous open-framework titanium oxophenylphosphate: **Krishanu Sarkar**, Subhash Chandra Laha, Nawal Kishor Mal and Asim Bhaumik

Journal of Solid State Chemistry 181 (2008) 2065-2072, Impact Factor =2.726, Citation=9

6. Hydrothermal transformation of a layered aluminophosphate into a mesoporous structure: **Krishanu Sarkar** and Asim Bhaumik

Journal of Porous Materials 15 (2008) 445-450, Impact Factor =2.183, Citation=9

7. A highly enantioselective chiral Schiff-base fluorescent sensor for mandelic acid: Koushik Dhara, **Krishanu Sarkar**, Partha Roy, Mahasweta Nandi, Asim Bhaumik and Pradyot Banerjee

Tetrahedron 64 (2008) 3153-3159, Impact Factor =2.233, Citation=31

8. Liquid phase partial oxidation of olefins over mesoporous titanium silicate molecular sieve synthesized by non-ionic templating route: Mahasweta Nandi, **Krishanu Sarkar** and Asim Bhaumik

Materials Chemistry and Physics 107 (2008) 499-504, Impact Factor =3.408, Citation=7

9. Synthesis, characterization and catalytic properties of microporous silicotitaniumphosphate by neutral templating route: **Krishanu Sarkar**, Mahasweta Nandi and Asim Bhaumik

Indian Journal of Chemistry, Section A 47A (2008) 1181-1186, Impact Factor =0.489, Citation=3

10. Formation of mesopores in resorcinol-formaldehyde composite resin: Mahasweta Nandi, **Krishanu Sarkar** and Asim Bhaumik

Indian Journal of Chemistry, Section A 47A (2008) 815-820, Impact Factor =0.489, Citation=2

11. Selective Zinc(II)-ion fluorescence sensing by a functionalized mesoporous material covalently grafted with a fluorescent chromophore and consequent biological applications: **Krishanu Sarkar**, Koushik Dhara, Mahasweta Nandi, Partha Roy, Asim Bhaumik and Pradyot Banerjee

Advanced Functional Materials 19 (2009) 223-234, Impact Factor=16.83, Citation=189

12. Facile Suzuki coupling over ortho-metalated palladium(II) complex anchored on 2D-hexagonal mesoporous organosilica: **Krishanu Sarkar**, Mahasweta Nandi, Manirul Islam, M. Mubarak and Asim Bhaumik

Applied Catalysis A: General 352 (2009) 81-86, Impact Factor =5.706, Citation=79

13. 3D-Hexagonal mesoporous silica having exceptional H₂ adsorption capacity: Mahasweta Nandi, Mohona Sarkar, **Krishanu Sarkar** and Asim Bhaumik

Journal of Physical Chemistry C 113 (2009) 6839-6844, Impact Factor =4.189, Citation=25

14. Vanadium resin as an efficient catalyst for the liquid phase ammoxidation of cyclic ketones: Sanghamitra Mukherjee, Mahasweta Nandi, **Krishanu Sarkar** and Asim Bhaumik

J. Mol. Catal. A: Chemical 301 (2009) 114-117, Impact Factor =3.687, Citation=6

15. A new functionalized mesoporous matrix supported Pd(II)-Schiff base complex: an efficient catalyst for the Suzuki-Miyaura coupling reaction: Koushik Dhara, **Krishanu Sarkar**, Dipankar Srimani, Subrata Kumar Saha, Pabitra Chattopadhyay and Asim Bhaumik

Dalton Trans. 39 (2010) 6395-6402, Impact Factor =4.174, Citation=125

16. Highly ordered acid functionalized SBA-15: a novel organocatalyst for the preparation of

xanthenes:

Mahasweta Nandi, John Mondal, **Krishanu Sarkar**, Yusuke Yamauchi and Asim Bhaumik
Chemical Communications 47 (2011) 6677-6679, Impact Factor =5.996, Citation=123

17. Mesoporous lanthanum-manganese oxides with nanoscale periodicity, high surface area and ferromagnetic property: Mahasweta Nandi, **Krishanu Sarkar**, Motin Seikh and Asim Bhaumik
Microporous and Mesoporous Materials 143 (2011) 392-397, Impact Factor =4.551, Citation=6

18. Organic-inorganic hybrid mesoporous material as regenerable sensing system for the recognition of nitroaromatic explosives: **Krishanu Sarkar**, Yolanda Salinas, Inmaculada Campos, Ramón Martínez-Mañez, Félix Sancenón and Pedro Amorós
Chempluschem 78 (2013) 684-694, Impact Factor =3.441, Citation=21

19. A Review on Recent Development of Fluorescent Chemosensor for Water (H₂O): **Krishanu Sarkar** and Koushik Dhara
J. Biol. Chem. Research. 35 (2018) 449-455

20. A Short Review On The Recent Advancement of Fluorescent Probes For Formaldehyde Sensing 2017 Onward: **Krishanu Sarkar**
Journal of Advanced Scientific Research 11 (2020) (03), 12-21

21. A Review on the Development of Spectroscopic Sensors for the Detection of Creatinine in Human Blood Serum: **Krishanu Sarkar**
International Journal of Life Science and Pharma Research 11(2021) (1), 91-101

22. Recent Advancement in Fluorescent Probes for Sensing and Imaging Tyrosinase Activity in Living Cells: **Krishanu Sarkar**
International Journal of Life Science and Pharma Research 11(2021) (2), L1-L17

Seminar/Symposium/Conference of International repute:

1. “Development of Chromofluorogenic Hybrid Materials for Sensing of Nitroaromatic Explosives” poster presented by **Krishanu Sarkar** in 4th International Science Congress (ISC-2014), 8th & 9th Dec., 2014 organized by International Science Congress Association, Pacific University, Udaipur, Rajasthan. India

2. “A turn-on fluorogenic probe for carbon monoxide detection in aqueous medium” poster presented by **Krishanu Sarkar** in 7th International Science Congress (ISC-2017), 8th & 9th Dec., 2017 organized by International Science Community Association and College of Science and Technology, Royal University of Bhutan, Bhutan

3. "Synthesis of Hybrid Phosphate Based Material with Dual Porosity" by Template free synthesis of phosphate based mesoporous materials" poster presented by **Krishanu Sarkar** in International Science Seminar on Science: Past, Present and Future organized by Syamsundar College and Indian Chemical Society on 12th Dec., **2017**
4. "Synthesis of a Novel Coumarin based Fluorogenic Probe for Selective CO Sensing in Living Cells" poster presented by **Krishanu Sarkar** in 1st International Conference on Frontiers in Biological, Environmental and Medical Sciences (FBEMS-2018) organized by The University of Burdwan on March 8-10, **2018**
5. "Synthesis, Characterization and Potential Application of a Novel Hybrid Nanoporous Material" poster presented by **Krishanu Sarkar** in Two-day International Seminar on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences Organized by Department of Chemistry, Surendranath College on 8-9th January, **2020**
6. "Hydrothermal Synthesis of a novel hybridApplication in Fuel Cell" poster presented by **Krishanu Sarkar** in International Symposium on Current Trends in Chemistry organized by Department of Chemistry, Diamond Harbour Women's University in association with Indian Chemical Society on 10th January, **2020**