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Metal−Organic Frameworks and $Ti_3C_2T_x$ Nanosheets for Electrocatalytic Oxygen Evolution, ACS Nano 11 (2017) 5800−5807.

List of Publications

Research Publications:

1. **Shweta Pal,** Uday Pratap Azad, Ashish Kumar Singh, Dinesh Kumar, Rajiv Prakash "Studies on some spinel oxides based electrocatalysts for oxygen evolution and capacitive applications," *Electrochimica Acta* **320** (2019) 134584.

2. **Shweta Pal**, Subhajit Jana, Ashish Kumar, Rajpal, Rajiv Prakash "Enhanced OER properties from nanocomposites of Co_3O_4 and MOF derived N/S/Zn-doped porous carbon," *Electrochimica Acta* **436** (2022) 141436.

3. **Shweta Pal**, Subhajit Jana, Rajiv Prakash "Co-MOF derived from cobalt salt and Anthrinilic acid for enhanced Oxygen evolution reaction (OER)." (Communicated)

4. **Shweta Pal**, Subhajit Jana, Devesh Singh, Uday Pratap Azad, Rajiv Prakash "Ni-Fe Prussian-blue-analogue nanocube and their conversion into nanocage and mixed oxide for oxygen evolution and Oxygen reduction reaction." (communicated)

5. **Shweta Pal,** Ravi Prakash Ojha, Rajiv Prakash "Cu-Fe Prussian blue analogue nanocube with intrinsic oxidase mimetic behaviour for the non-invasive colorimetric detection of Isoniazid in human urine," *Microchemical Journal* ***171*** (2021) 106854.

6. **Shweta Pal**, Hassane Lgaz, Preeti Tiwari, Ill-Min Chung, Gopal Ji, Rajiv Prakash "Experimental and theoretical investigation of aqueous and methanolic extracts of Prunus dulcis peels as green corrosion inhibitors of mild steel in aggressive chloride media," *Journal of Molecular Liquids* ***276*** (2018) 347-361.

7. **Shweta Pal**, Hassane Lgaz, Preeti Tiwari, Ill-Min Chung, Gopa Ji, Rajiv Prakash "Lemon seeds as green coating material for mitigation of mild steel corrosion in acid media: Molecular dynamics simulations, quantum chemical calculations and electrochemical studies," *Journal of Molecular Liquids* **316** (2020) 113797.

8. Aniruddha Jaiswal, **Shweta Pal**, Ashish Kumar, Rajiv Prakash "Metal-free triad from red phosphorous, reduced graphene oxide and graphitic carbon nitride (red P-rGO-g-C3N4) as robust electro-catalysts for hydrogen evolution reaction," *Electrochimica Acta* **338** (2020) 135851.

9. Chanderjeet Verma, Ashish Kumar, **Shweta Pal**, Shaswat Sinha, Ashish Kumar Singh, Annirudha Jaiswal, Rajiv Prakash "Polyaniline stabilized

activated carbon from Eichhornia Crassipes: Potential charge storage material from bio-waste," *Renewable energy* **162** (2020) 2285-2296.

10. Vinit Kumar Jha, Manisha Singh Chauhan, **Shweta Pal**, Subhajit Jana, Gopal Ji "Experimental and DFT analysis of onion peels for its inhibition behavior against mild steel corrosion in chloride solutions," *Journal of the Indian Chemical Society* **99 (7)** (2022) 100534**.**

11. Ashish Kumar Singh, Bhawna Chugh, Sanjeev Thakur, Balaram Pani, Hassane Lgaz, Ill-Min Chung, **Shweta Pal**, Rajiv Prakash "Green approach of synthesis of thiazolyl imines and their impeding behaviour against corrosion of mild steel in acid medium," *Colloids and Surfaces A: Physicochemical and Engineering Aspects* **599** (2020) 124824.

12. Preeti Tiwari, **Shweta Pal**, Gopal Ji, Rajiv Prakash "Popular food colors for sustainable corrosion inhibition of mild steel in 0.5 M H_2SO_4: Electrochemical and surface morphological investigation," *Chemistry Africa* **5** (2022) 957-968.

13. Vinit Kumar Jha, Subhajit Jana, Shweta Pal, Gopal Ji, Rajiv Prakash "Thin-Film Coating of the Hydrophobic Lotus Leaf on Copper by the Floating Film Transfer Method and Investigation on the Corrosion Behavior of Coated Copper in Saline Water," *Ind. Eng. Chem. Res.* **62** (2023) 85-95.

<u>Patent:</u>

"A method and A Kit for detecting the concentration of Anti-Tuberculosis Drug in a Biological Sample".

Patent no. 412826

List of Conferences

Symposium and Conferences

1. International conference on "Advances in Polymer Science and Technology" (APA-2018) Kathmandu, Nepal, 2018, (Poster Presentation).
2. National conference on advanced nanomaterials and their applications (ANA-2018), MNNIT Allahabad, 2018 (Poster Presentation).
3. ANVESHAN 2019**,** Technical meet hosted by the department of Metallurgical Engineering, IIT BHU, Varanasi UP, India. (Poster Presentation).
4. National symposium on contemporary trends and future prospects of functional materials (CTFM-2019) (Poster Presentation).
5. 30^{th} Annual meeting of MRS-J Japan 2020. (Poster Presentation).
6. National conference on "Innovative approaches towards sustainable development" (NCIATSD-2020), K.N.P.G. College, Gyanpur, Bhadohi, U.P. (Poster Presentation).
7. International web conference on advanced materials science and nanotechnology (NANOMAT-2020), Department of Physics, Vinayak Vidnyan Mahavidyalaya, Nandgaon Khandeshwar, Dist. Amravati, Maharashtra, India. (Paper Presentation).
8. Online workshop on material characterization techniques, Chitkara University Research and Innovation Network (CURIN) Chitkara University, Punjab.
9. National Webinar on Energy and Environment jointly organized by the Applied Physics Department, Faculty of Technology and Engineering, The Maharaja Sayajirao University of Baroda (MSUB), 2020.

Honour Received

1. **RIVISTA Best poster presentation Award in** *ANVESHAN'19* (2019**),** Technical meet hosted by the department of Metallurgical Engineering, IIT BHU, Varanasi UP, India.

2. **Kalpna Chawla Award (2010),** Punjabi Welfare & Cultural Society.