

## Curriculum Vitae

**Dr. Senjuti Banik ( M.Sc, B.Ed, PhD)**

**Department** – Chemistry

**Designation** – State Aided College Teacher (SACT)

**Email Id-** [senjuti.banik@gmail.com](mailto:senjuti.banik@gmail.com)

**Contact No-** 8910314125

**Specialization** – Physical Chemistry

**Teaching Experience-** Since 2018

**Colleges served** - Sammilani Mahavidyalaya, Kolkata (2018 - till date)



### ❖ Research:

My research interest lies in the field of Electrochemistry especially Synthesis of Platinum, Nickel and some Platinum based nanoparticles and their efficacy in anode catalysis.

### ❖ PUBLICATION: RESEARCH PAPERS IN JOURNALS

1. Improved and Synergistic Catalysis of Single-pot-synthesized Pt-Ni Alloy Nanoparticles for Anodic Oxidation of Methanol in Alkali, **S Banik**, A Mahajan, S Roy Chowdhury and S.K. Bhattacharya, *RSC Advances*, 2016, 6(95) 92490.
2. Kinetic Parameters of Anodic Oxidation of Methanol in alkali: Effect of diameter of Pd nano-catalyst, composition of electrode and solution and mechanism of the reaction, A Mahajan, **S Banik**, P.S. Roy, S Roy Chowdhury and S.K. Bhattacharya, *International Journal of Hydrogen Energy* 42 (2017) 21253-21268.
3. Size control synthesis and amperometric sensing activity of Palladium nanoparticles for Glucose detection, A Mahajan, **S Banik**, S Roy Chowdhury,

P.S. Roy, and S.K. Bhattacharya *Materials Today:Proceedings* 5 (2018) 2049-2055.

4. Anodic Oxidation of Butan-1-ol on Reduced Graphene Oxide-Supported Pd-Ag Nanoalloy for Fuel Cell Application. A. Mahajan, **S. Banik**, D. Majumdar, S. K. Bhattacharya, **ACS Omega**, 4 (3), (2019) 4658-4670.
5. Temperature Control Synthesis of Platinum Nanoparticle-Decorated Reduced Graphene Oxide of different functionalities for anode-catalytic Oxidation of Methanol. **S. Banik**, A. Mahajana, A. Ray, D. Majumdar, S. Das, S. K. Bhattacharya, **FlatChem**, 16 (2019) 100111.
6. Size Control Synthesis of Pure Ni nanoparticles and Anodic-Oxidation of Butan-1-ol in Alkali. **S. Banik**, A. Mahajan, S. K. Bhattacharya, **Materials Chemistry and Physics**, 235 (2019) 121747.
7. Synthesis of a novel pyrene derived perimidine and exploration of its aggregation induced emission, aqueous copper ion sensing, effective antioxidant and BSA interaction properties. N. Chakraborty, **S. Banik**, A. Chakraborty, S. K. Bhattacharya, S. Das, **Journal of Photochemistry and Photobiology A: Chemistry**, 377, (2019) 236- 246.
8. Synthesis of  $\alpha$ - $\beta$   $\text{Bi}_2\text{O}_3$  heterojunction photocatalyst and evaluation of reaction mechanism for degradation of RhB dye under natural sunlight. K. K. Bera, M. Chakraborty, M. Mondal, **S. Banik**, S. K. Bhattacharya, **Ceramics International**, 46, (2020) 7667-7680.

❖ **SEMINAR OR CONFERENCE ATTENDED:**

1. Presented a paper in a National seminar on Current Developments in Chemical Sciences (CDCS-2018) held on March 7, 2018 at Department of Chemistry, Jadavpur University, Kolkata-700032.
2. Presented a paper in “Second International Conference on Electrochemical Science and Technology” ICONEST-2017 organized by ECSI at Indian Institute of Science, India during 10-12<sup>th</sup> August, 2017.

3. Participated in the International symposium on “Facts of Chemistry in Biology” (FOCB-II) held in the department of Chemistry, St. Xavier’s College, Kolkata on 12<sup>th</sup> January, 2017.
4. Participated in the National seminar on “Chemistry of Functional Materials of Current Interest” (CFMCI-2016) on 16<sup>th</sup> March, 2016 at Department of Chemistry, Jadavpur University, Kolkata-700032.
5. Participated in the National seminar on “A Journey Through Recent Developments in Chemistry” on March 1-2, 2012 at Acharya Brojendra Nath Seal College, Cooch Behar.