Swapnil Hanmant Adsul

H. No. 9-7-59, Road No. 11,
Yadagirinagar, Santoshnagar,
Hyderabad-500059, Telangana, INDIA
Mobile: +91-9404216793
swapnil.adsul01@gmail.com

OBJECTIVE

"To pursue higher education in a highly motivated environment to improve my technical and analytical abilities".

PROFILE

- Passionate PhD candidate with demonstrated research proficiency in development and characterization of surface protection coatings.
- Hands on experience in characterization techniques such as SEM, TEM, XRD, UV Visible spectroscopy, Electrochemical Impedance Spectroscopy, Potentiodynamic Polarization, Scanning Vibrating Electrode Technique, TGA, BET and other mechanical testing methods.
- Lead author in four peer-review journals and one book chapter; co-author of one book chapter with major contribution and participated in eight National/ International conferences.
- Experience in simulation of Kinetics data using Aspen Custom Modeller.
- Strong interpersonal skills.

EDUCATION

Doctor of Philosophy (Chemical Engineering) (2016-Pursuing, Synopsis submitted)
National Institute of Technology, Warangal
Project: Development of nanocontainer based self-healing coatings for corrosion protection of Magnesium alloy AZ91D

- Development of self-healing corrosion protection coatings on Mg alloy AZ91D using Sol-Gel method
- Characterization of coatings for corrosion protection ability with exposure to corrosive media

Master of Technology (Chemical Engineering) (2014)
Dr. Babasaheb Ambedkar Technological University, Lonere. 87.06%
Project: Esterification of Methacrylic Acid with methanol using ion exchange resins: Batch Kinetics and Reactive Distillation

- Generation of batch kinetic data using various parameters
- Validation of kinetic data with models
- Batch Reactive Distillation studies

Bachelor of Engineering (Chemical Engineering) (2012)
Gharda Institute Of Technology, Lavel (University Of Mumbai) 70.67%

DOB-06/06/1990

Skills
Strong work ethic, critical thinking, innovative and positive outlook

Area of Interest:
Corrosion Science, Materials Engineering, Reaction Engineering and Separation Techniques.

Analytical:
GC, HPLC, TEM, SEM, XRD

Operating Systems:
MS Windows XP, Windows 7 & Windows 10.

- **Secondary School Certificate (Grade XII)** 68.17%
- **Secondary School Certificate (Grade X)** 68%

EXPERIENCE

International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad (February 2015 to Present)

Designation: Senior Research Fellow

Research work on Nanoclay based Self-Healing Corrosion Protection Coatings on magnesium alloys using Sol-Gel Method

Gharda Institute Of Technology, Lavel (July 2014-January 2015)

Designation: Assistant Professor (Ad-hoc)

Theory classes of Mass Transfer Operation-I; Process Engineering and Practical classes of Mechanical Equipment Design.

Dr. Babasaheb Ambedkar Technological University, Lonere, Maharashtra (October 2012-June 2014)

Designation: Teaching Assistant

Theory and Practical classes of Instrumentation and Mass Transfer Operation-I.

CONFERENCES

- Oral Presentation on "Membrane Distillation" at National Level Paper Presentation at MAE, Aland (2010)
- Oral Presentation on "Membrane Distillation" at National Level Paper Presentation, TKIET, Warananagar (2011)
- Paper presented on "Manufacturing of Ethyl Acetate" at National level conference (NCACME-12), Gharda Institute of Technology (2012)
- Poster Presentation on "Corrosion Behavior Study of Nanoclay-based Sol-gel Coatings on Mg Alloy AZ91D" at IMME-17, NIT Trichy (2017); received Best Poster Award.
- Poster Presentation on "Investigations on anticorrosion properties of montmorillonite clay-based sol-gel coatings on magnesium alloy AZ91D" at ICONEST-2017, IISc Bengaluru (2017).
- Oral Presentation on "Effect of inhibitor loaded halloysite nanoclay on corrosion protection properties of sol-gel coatings on magnesium alloy AM50" at FCCM-2018, NIT Warangal (2018).
- Oral Presentation on "Evaluation of corrosion protection ability of different corrosion inhibitor loaded halloysite nanoclay based sol-gel coatings on magnesium alloy AZ91D" at NCIC-2019, CSIR-IMMT (2019).
- Oral Presentation on "Different corrosion inhibitor loaded smart halloysite nanocontainer based sol-gel coatings for corrosion protection of Mg alloy AZ91D" at ADMAT 2019, DMRL, Hyderabad (2019).

PUBLICATIONS

- "**Self-healing ability of nanoclay-based hybrid sol-gel coatings on magnesium alloy AZ91D**"

authored by Swapnil H. Adsul, T. Siva, S. Sathiyanarayanan, Shirish H. Sonawane and R. Subasri, **Surface and Coatings Technology 309 (2017) 609-620**.

- "**Evaluation of self-healing properties of inhibitor loaded nanoclay-based anticorrosive coatings on magnesium alloy AZ91D**" authored by " Swapnil H. Adsul, K. R. C. Soma Raju, B. V. Sarada, Shirish H. Sonawane, R. Subasri ", **Journal of Magnesium and Alloys 6 (2018) 299-308**
- "**Aluminum pillared montmorillonite clay-based self-healing coatings for corrosion protection of magnesium alloy AZ91D**" authored by " Swapnil H. Adsul, T. Siva, S. Sathiyanarayanan, Shirish H Sonawane, R. Subasri, **Surface and Coatings Technology 352 (2018) 445-461**.
- **"Release rate kinetics of corrosion inhibitor loaded halloysite nanotube based anticorrosion coatings on magnesium alloy AZ91D",** authored by authored by "Swapnil H. Adsul, Uday D. Bagale, Shirish H. Sonawane, R. Subasri, **Journal of Magnesium and Alloys (Accepted, in press).**

BOOK CHAPTERS

- "**Smart nanocontainers for anticorrosion applications"** authored by R. Subasri, Swapnil H. Adsul, S. Manasa in: Smart Nanocontainers, edited by Phuong Nguyen-Tri, et al., Elsevier (2020).
- "**Corrosion protection of metals/alloys through multifunctional sol-gel nanocomposite coatings**" authored by Swapnil H. Adsul, K. Pradeep Prem Kumar, S. Manasa, Aarti Gautam, K.V. Gobi, Shirish H. Sonawane, R. Subasri in: A Treatise in Corrosion Science, Engineering and Technology, edited by T. Subba Rao , et al., Springer (2020).

ACHIEVEMENTS & AWARDS

1. AICTE, TEQIP-II Fellowship in 2012
2. Best Poster Presentation Award, IMME-2017, NIT Trichy

WORK STYLE

- Self-motivated and willing to carry out basic tasks
- Ever-ready to learn new things and adaptable to new working environment
- Happy to face challenges and work to overcome them
- Punctual and strongly believe in team work

REFERENCES

1) **Dr. R. Subasri**
   Scientist 'F' and Team Leader,
   Centre for Sol-Gel Coatings,
   ARCI, Hyderabad, Telangana State, India.
   Email :- subasri@arci.res.in
   Mobile :-9849741875
2) **Dr. Shirish H. Sonawane**
   Professor, Department of Chemical Engineering,
   National Institute of Technology, Waranagal, Telangana State, India.
   Email :- shirish@nitw.ac.in
   Mobile :- 8332969397
3) **Dr. Sachin D. Giri**
   R & D Scientist 2,
   Honeywell UOP, Gurugram, Haryana, India.
   Email :- sachingiri1985@gmail.com
   Mobile :- 8097773033

DECLARATION

I hereby declared whatever mentioned in above is true to my knowledge.

Swapnil Hanmant Adsul