

# **PROFILE**

Name	Dr. A. JOHN JEEVAGAN		
Designation	Assistant Professor (SF) PG Department of Chemistry Arul Anandar College Karumathur, Madurai,Tamil Nadu, India		
<b>Mobile Number</b>	9944647846, 9047637018		
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Teaching Experience	UG: 6 years	PG: 5 Years	

# **Objective**

To be a part of an organization, grow in the process, have a sense of achievement in a challenging position in your esteemed organization.

# Academic Chronicle - M.Sc., Ph. D.,

S. No	Qualification	Institution	University	Month & Year of Passing	%
1	Ph. D,	Gandhigram Rural University	Gandhigram Rural University	October 2012	-
2	M.Sc. Chemistry	St. Joseph's College	Bharathidasan University	April 2006	74.69
3	B.Sc. Chemistry	Gandhigram Rural University	Gandhigram Rural University	April 2004	67.55

Course : Doctor of Philosophy (Ph. D) in Chemistry (2008-2012)
Supervisor : Dr. S. Abraham John, Director, Centre for Nanoscience and

Nanotechnology, Department of Chemistry, GRI

**Title of Thesis**: "Synthesis and Characterization of Functionalized

Metallophthalocyanines, Gold and Silver Nanoparticles and Their Modification on Electrodes for Sensing Applications " (Awarded on

**05-10-2012**)

Post Doctoral Researcher, Department of Material and Life Chemistry, Kanagawa University, Japan  Assistant Professor (FDP Faculty), PG Department of Chemistry, St. Joseph's College, Trichy

**Present Position**: Assistant Professor (SF), PG Department of Chemistry,

Arul Anandar College, Karumathur, Madurai, Tamil Nadu, India

(June-2017 onwards)

# **Professional Background**

❖ Jul. 2015 – Jun. 2017 : Assistant Professor (FDP Faculty), Department of

Chemistry, St. Joseph's College, Trichy

❖ Apr. 2013 – Mar. 2015 : Post Doctoral Researcher, Department of Material and

Life Chemistry, Kanagawa University, Japan

❖ Aug. 2012 – Mar. 2013 : Assistant Professor, Department of Chemistry,

RVS School of Engineering and Technology, Dindigul

❖ Apr. 2011 – June. 2012 : UGC-SRF Meritorious Fellow, Department of Chemistry,

Gandhigram Rural Institute, Dindigul

Dec. 2008 – Mar. 2011 : UGC-JRF Meritorious Fellow, Department of Chemistry,

Gandhigram Rural Institute, Dindigul

Apr. 2008 – June. 2012 : Research Scholar, Department of Chemistry,

Gandhigram Rural Institute, Dindigul

Feb. 2007 – Mar. 2008 : Junior Chemist, SGS India Pvt. Ltd, Tirupur

❖ Aug. 2006 – Jan. 2007: Chemist Trainee, LSS Ayurvedic Pharmacy Limited,

Dindigul

#### **Awards and Honors**

- Post-Doctoral Research Fellow by Kanagawa University, Yokohama, Japan.
- Senior Research Fellow (SRF-RFSMS (2010-2012)) by the University Grants Commission (UGC-SAP), New Delhi, India
- Junior Research Fellow (JRF-RFSMS (2008-2010)) by the University Grants Commission (UGC-SAP), New Delhi, India.

### **Research Experiences**

- ✓ Synthesis and Characterization of Different Functionalized Metallophthalocyanine
- ✓ Synthesis and Characterization of Metallophthalocyanine Capped Gold and Silver Nanoparticles
- ✓ Fabrication of Thin Films by Self-Assembly and Electropolymerization
- ✓ Developed Sensors for Important Biomolecules, pH sensors
- ✓ Intermetallic Nanoparticles, Graphene Supported Nanoparticles, Quantum dots
- ✓ Semiconductor-Intermetallic Nanoparticles for Photocatalytic Applications, Fuel Cells

### **Area of Interest**

- ✓ Synthesis of Macrocyclic Metal Complexes
- ✓ Thin film Fabrication Chemically Modified Electrode Electrocatalysis and Sensors
- ✓ Heterogeneous Catalysis Photocatalysis Photoelectrochemistry Solar Energy Conversion
- ✓ Energy and Environmental Remediation Applications Solar Cells

#### Instrumental skills

- ➤ UV-visible Spectrophotometer (JASCO-v630 and Perkin Elmer Lambda 35)
- > FT-IR and ATR-FT-IR Spectrometer (JASCO FT-IR 460+)
- Handle all Electrochemical Techniques in Electrochemical Workstation (CHI model 643B, Austin, TX, USA)
- Medium Pressure Liquid Chromatography
- Handle Electrochemical Techniques in Electrochemical Workstation (Bio Logic SAS, model VMP3)
- > X-ray Photoelectron Spectroscopy, XRD, Schlenk Line, Glow box
- Photocatalytic Reactor
- High Pressure Liquid Chromatography
- > All Basic analytical instruments (pH, Conductivity and ion meter)

# **Analysis Skills**

- UV-visible and FT-IR Spectra
- > Electrochemical Analyzer
- ▶ ¹H NMR Spectra
- Atomic Force Microscope, X-ray Photoelectron Spectroscopy
- Transmission Electron Microscope, XRD
- Scanning Electron Microscope (SEM)

### **Computer Skills**

✓ Post Graduate Diploma in Computer Application, Chem Draw

### **Publications in International Journals**

- 1. Green synthesis of silver nanoparticles using Biophytum sensitivum extract and its electrocatalytic activity towards dioxygen reduction
  - M. Kavitha, S. Jeyaraj, P. Muthukumar, <u>A. John Jeevagan</u>, *Materials today: Proceedings*, <a href="https://doi.org/10.1016/j.matpr.2021.02.605">https://doi.org/10.1016/j.matpr.2021.02.605</a>, (Impact factor: 0.657)
- 2. Enhancement of the electrocatalytic oxygen reduction reaction on Pd₃Pb ordered intermetallic catalyst in alkaline aqueous solutions
  - **A. John Jeevagan**, Takao Gunji, Fūma Ando, Toyokazu Tanabe, Shingo Kaneko, Futoshi Matsumoto, *Journal of Applied Electrochemistry* 46 (7), (2016), 745-753 (Impact factor: 3.803)
- 2. Photocatalytic decomposition of various organic compounds over WO<sub>3</sub>-supported ordered intermetallic PtPb co-catalysts
  - T. Gunji, **A. John Jeevagan**, M. Hashimoto, T. Nozawa, T. Tanabe, S. Kaneko, M. Miyauchi, F. Matsumoto, *Applied Catalysis: B (Environmental) 181, (2016), 475-480,* (Impact factor: 7.435)
- 3. Enhancement of Alkaline Ethanol Oxidation on Ordered Intermetallic Pt₃Pb-PtPb Core-Shell Nanoparticles Prepared by Converting Nanocrystalline Metals to Ordered Intermetallic Compounds
  - T. Gunji, T. Tanabe, **A. John Jeevagan**, **S**. Usui, T. Tsuda, S. Kaneko, G. Saravanan, H. Abe, F. Matsumoto, *Journal of Power Sources*, *273*, (2015), 990-998. (Impact factor: 5.211)

- 4. Visible Light-Induced Decomposition of Organic Compounds on WO<sub>3</sub>-Loaded PtPb Cocatalysts
  - T. Gunji, T. Tsuda, **A. John Jeevagan**, M. Hashimoto, T. Tanabe, S. Kaneko, M. Miyauchi, G. Saravanan, H. Abe, F. Matsumoto, *Catalysis Communications*, *56*, (2014) 96-100. (Impact factor: 3.320)
- 5. Self-assembled monolayer of 2,9,16,23-tetrahydroxythiophenylphthalocyanato-cobalt(II) on gold electrode and its electrocatalytic activity towards dioxygen reduction
  - **A. John Jeevagan** and S.A. John, *Journal of Electroanalytical Chemistry*, 713 (2014) 77-81. (Impact factor: 2.871)
- 6. Electrochemical determination of guanosine 5'-monophosphate using the electropolymerized film of nickel(II) phthalocyanine modified glassy carbon electrode
  - **<u>A. John Jeevagan</u>** and S.A. John, *Electrochimica Acta, 95 (2013) 246-250.* (Impact factor: 4.502)
- Synthesis, characterization and electrocatalytic application of non-peripheral amine substituted nickel(II) phthalocyanine capped gold nanoparticles
   A. John Jeevagan and S.A. John, RSC Advances, 3 (2013) 2256-2264. (Impact factor: 3.708)
- 8. Growth of gold nanorods in solution and on ITO and Au substrates using non-peripheral amine functionalized nickel(II) phthalocyanine capped gold nanoparticles as a seed solution
  - **A. John Jeevagan,** M. Amal Raj and S.A. John, *RSC Advances, 3 (2013) 870-878.* (Impact factor: 3.708)
- 9. Electrochemical determination of caffeine in the presence of paracetamol using a self-assembled monolayer of non-peripheral amine substituted copper(II) phthalocyanine
  - **A. John Jeevagan** and S.A. John, *Eleectrochimica Acta*, 77 (2012) 137-142. (Impact factor: 4.502)

- Electrochemical sensor for guanine using a self-assembled monolayer of 1,8,15,22-tetraaminophthalocyanatonickel(II) on glassy carbon electrode
   A. John Jeevagan and S.A. John, *Analytical Biochemistry*, 424 (2012) 21-26. (Impact factor: 2.305)
- 11. Electrochemical determination of L-methionine using the electropolymerized film of non-peripheral amine substituted Cu(II) phthalocyanine on glassy carbon electrode
  - **A. John Jeevagan** and S.A. John, *Bioelectrochemistry*, 85 (2012) 50-55. (Impact factor: 3.870)
- 12.Two-step Microwave Synthesis of Highly Dispersed Ordered Intermetallic PtPb Nanoparticles on Carbon Black
  - A. John Jeevagan et al., ECS Transactions, 58 (21) (2014) 23-31
- 13. Electrocatalytic Oxygen Reduction and Water-Oxidation on Transition Metal Ions-Doped MnO<sub>2</sub>, RuO<sub>2</sub> and IrO<sub>2</sub> in Alkaline Aqueous Solutions

  A. John Jeevagan *et al.*, ECS Transactions, 58 (20) (2014) 9-18
- 14. Stable charge/discharge cycle performance of a LiFePO4 cathode prepared with a carboxymethyl cellulose binder
  - A. John Jeevagan and Co-workers, ECS Transactions, 58 (25) (2014) 19-25
- 15. Photocatalytic Activity of Pt<sub>3</sub>Ti/WO<sub>3</sub> Photocatalyst under Visible-Light Irradiation **A. John Jeevagan and** Co-workers, *ECS Transactions*, 61(26) (2014) 17-224
- 16. Site-Selective Deposition of Ordered Intermetallic PtPb Nanoparticle Co-Catalysts on WO₃ Surfaces to Enhance Photocatalytic Activity
  - A. John Jeevagan and Co-workers, ECS Transactions, 61(22) (2014) 55-59
- 17. Photocatalytic Activity of Pd-Au Alloy Nanoparticle Co-catalyst/TiO<sub>2</sub> for Acetic Acid Decomposition
  - A. John Jeevagan et al., ECS Transactions, 64 (2014).

# **Seminars/Workshops/Conferences (National/International)**

- 1. Poster Presented in 11<sup>th</sup> CRSI National Symposium in Chemistry, National Chemical Laboratory, Pune, Maharashtra, India, February 6<sup>th</sup> to 8<sup>th</sup>, 2009.
- 2. Poster presented in *National Conference on Recent Advances in Electroanalytical Techniques, Department of Chemistry, Gandhigram Rural Institute, Gandhigram*, February 25-26, 2010.
- 3. Oral presentation research entitled "Synthesis of on а paper Functionalized Aminophthalocyanine Gold Nanoparticles and Their Electrocatalytic Activity" at National Seminar on Chemistry of Nanomaterials and Molecular Dynamics, Annamalai University, December 30-31, 2010.
- Participated in the "National Workshop on Electroanalytical Techniques", held on October 11-13, 2010 at Department of Chemistry, Alagappa University, Karaikudi.
- 5. Oral presentation on a research paper entitled "Electrochemical Determination of L-methionine using Electropolymerized Film of 3,3',3",3"'tetraaminophthalocyanatocopper(II) on Glassy Carbon Electrode" at National Symposium on Electrochemical Science and Technology NSEST-2011, The Electrochemical Society of India, Indian Institute of Science, Bengaluru-12. August 19-20, 2011.
- Presented a poster on a research paper entitled "Electrochemical Sensor for Hydrazine using a Non-peripheral Amine Functionalized Phthalocyanine Capped Gold Nanoparticles Modified Electrode" at *Diamond Jubilee Symposium on Recent Trends in Chemistry (DJSRTC), Indian Institute of Technology, Kharagphur,* October 21-23, 2011.

- 7. Presented a poster on a research paper entitled "Two-step Microwave Synthesis of Highly Dispersed Ordered Intermetallic PtPb Nanoparticles on Carbon Black" at 224<sup>th</sup> ECS Meeting, San Francisco (October 27-November 01, 2013).
- 8. Oral presentation on a research paper entitled "Electrocatalytic Oxygen Reduction and Water-Oxidation on Transition Metal Ions-Doped MnO<sub>2</sub>, RuO<sub>2</sub> and IrO<sub>2</sub> in Alkaline Aqueous Solutions" at *224<sup>th</sup> ECS Meeting, San Francisco (October 27-November 01, 2013)*.
- 9. Presented a poster on a research paper entitled "Photocatalytic Activity of PtAu/WO₃ Catalyst under Visible light Irradiation" at *Photocatalysis Symposium, Kanagawa University, Yokohama (November 27, 2013)*.
- Presented a poster on a research paper entitled "Visible Light Driven Decomposition of Organic Compounds by Two Different CoCatalysts" at 225<sup>th</sup> ECS Meeting, Orlando (May 11-16, 2014).
- 11. Presented a poster on a research paper entitled "Synthesis of Pd-based Nanoparticles and its Photocatalytic Activity in Organic Compounds Decomposition" at *226<sup>th</sup> ECS Meeting, Orlando (May 11-16, 2014)*.
- 12. Oral presentation on a research paper entitled "Pd<sub>3</sub>Pb Ordered Intermetallic Catalyst for Improved Electrocatalytic Oxygen Reduction Reaction in Alkaline Environment" at *ECSJ Fall Meeting, Hokkaido University, Sapporo, Japan* (September 27-28, 2014).
- 13. Oral presentation on a research paper entitled "Synthesis of Reduced Graphene Oxides-Supported Binary Catalysts and its Electrocatalytic Activity" at 226<sup>th</sup> ECS Meeting, Cancun, Mexico (October 05-10, 2014).

- 14. Oral presentation on a research paper entitled "Enhancing Alkaline Ethanol Oxidation on Ordered Intermetallic Pt₃Pb-PtPb Core-Shell Nanoparticles Prepared by Converting Nanocrystalline Metals to Ordered Intermetallic Compounds" at 226<sup>th</sup> ECS Meeting, Cancun, Mexico (October 05-10, 2014).
- 15. Oral presentation on a research paper entitled "Facile Synthesis and Photocatalytic Activity of Visible Light Driven Dual-Cocatalysts Loaded Tin Oxide (Sn<sub>3</sub>O<sub>4</sub>) Semiconductor" at *ECSJ Spring Meeting, Yokohama National University, Yokohama, Japan (March 15-17, 2015)*.
- 16. Presented a poster on a research paper entitled "Facile Synthesis of Visible Light Driven Tin Oxide (Sn<sub>3</sub>O<sub>4</sub>) Supported Bimetallic Nanoparticles and its Photocatalytic Activity" at *ETCES, SN College, Madurai (February 07, 2020)*.
- 17. Presented a poster on a research paper entitled "Facile Synthesis of Visible Light Driven Tin Oxide (Sn<sub>3</sub>O<sub>4</sub>) Supported Pd-Au Alloy Nanoparticle and its Photocatalytic Activity" at *Energy Science and Technology, Periyar University, Salem (March 04, 2020)*.

# **Additional Responsibilities**

- ❖ To co-ordinate and guided M.Sc., project students (11 students)
- ❖ Coordinator for IIT-JAM coaching class, SJC, Trichy

### **Reviewer for Journals**

- Analytical Letters
- Materials Express
- Science of Advanced Materials

### **Personal Skills**

- Self Confidence With Time Keeping
- ❖ Ability to Lead
- Tolerant and Flexible to Different Situations

#### Languages

To Talk, Read and Write: English & Tamil