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Name: Dr. S. Daniel Abraham

Designation: Assistant Professor in Chemistry (SFS)

Education: M.Sc., Ph.D. (SET)

- **UG** – B.Sc, Bishop Heber College, Trichy-17, Bharathidasan University, 2008.
- **PG** - M.Sc, Loyola College, Chennai-34, University of Madras, 2010.
- **Ph.D** - St.Xavier's College, Palayamkkotai-02, Manonmaniam Sundaranar University, 2016.

Brief Bio of 200 words containing the following items

a. **Courses taught (PG for the past 5 years)**

Material Science, Thermodynamics and Chemical Kinetics, Environmental Chemistry, Analytical Techniques in Chemistry, Group theory and Quantum Mechanics, Electrochemistry and Spectroscopy, Bio-Inorganic Chemistry.

b. **Research Projects / Publication**

PG Projects: 12

M.Phil Projects: 2

Publications- 19

c. **Ph.D / M.Phil Guideship: Nil**

C V Link

Curriculum Vitae

1. **Name** : Dr. S. Daniel Abraham
2. **Education** : M.Sc., Ph.D., (SET)
3. **Publications** : 19

Papers published in various National/International reputed Journals

- ❖ “Systematic analysis and the effect of Mn doping on structural, optical and magnetic properties of MnO₃ nanoparticles” A. Nirmal Paul Raj, R. Biju Bennie, C. Joel, S.Hari Kengaram, **S. Daniel Abraham**, *Solid State Communications*, 2022, 341, 114532.
- ❖ “Removal of toxic metal ions by macrocyclic ligands via liquid-liquid extraction technique” C. Joel, R. Biju Bennie, A. Nirmal Paul Raj, S. Theodore David, **S. Daniel Abraham**, *Separation Science and Technology*, 2021, 56(7), 1231.

- ❖ “Synthesis and microstructural analysis of nano-sized $\text{Th}(\text{VO}_3)_4$ for the uptake of Ni(II) ions from aqueous solution”, **S. Daniel Abraham**, R. Biju Bennie, C. Joel, T. Adinaveen, and S. Theodore David, *Separation Science and Technology*, 2020, 55(2), 247.
- ❖ “Evaluation of DNA/BSA Binding and Chemical Nuclease activity of L-Tyrosine based Mn(II) and Fe(III) Metallo-Intercalators”, R. Biju Bennie, C. Joel, **S. Daniel Abraham**, S. Iyyam Pillai, and S. Theodore David, *Acta Chim. Slov.*, 2019; 66, 196.
- ❖ “Biological evaluation of a novel amino acid-based macrocyclic Mn(III) and Fe(III) complexes”. C. Joel, R. Biju Bennie, **S. Daniel Abraham**, S. Iyyam Pillai, and S. Theodore David, *Applied Organometallic Chemistry*, 2018; 32(11), 4516.
- ❖ “Eco-friendly and Green synthesis of BiVO_4 nanoparticle using microwave irradiation as photocatalyst for the degradation of Alizarin Red S”, **S. Daniel Abraham**, S. Theodore David, R. Biju Bennie, C. Joel, D. Sanjay Kumar, *Journal of Molecular Structure*, 2016; 1113, 175.
- ❖ Structural, thermal and BSA binding analysis of L-Tryptophan derived Mn(III)/Fe(III) complexes, R. Biju Bennie, C. Joel, **S. Daniel Abraham**, S. Theodore David and S. Iyyam Pillai, *Der Pharmacia Lettre*, 2016; 8(5), 260.
- ❖ “Simple, Rapid and Economical synthesis of Lead Vanadate ($\text{Pb}_2\text{V}_2\text{O}_7$) Nanospheres by Microwave-Assisted Combustion Method”, **S. Daniel Abraham**, S. Theodore David, M. Mahesh, R. Biju Bennie, C. Joel, M. Seethalakshmi, *International Journal of Science and Technoledge*, 2014; 2(10): 197.
- ❖ “Microwave Assisted Synthesis, Characterization and Photocatalytic Activity of $\text{Zn}_2\text{V}_2\text{O}_7$ Nanospheres”, **S. Daniel Abraham**, S. Theodore David, R. Biju Bennie, C. Joel, M. Seethalakshmi and T. Adinaveen, *Chemical Science Transactions*, 2014; 3(4): 1488. doi:10.7598/cst2014.920.
- ❖ “Spectral, Electrochemical and DNA binding properties of some Macroacyclic Transition metal complexes using diverse spectral methods”, C. Joel, S. Theodore David, R. Biju Bennie, **S. Daniel Abraham** and S. Iyyam Pillai, S. Magala Sathyasheeli, *International Journal of Research in Inorganic Chemistry*, 2015; 5(3): 14.
- ❖ “Binding studies of some novel macroacyclic transition metal complexes towards CT-DNA via multispectroscopic techniques”, C. Joel, S. Theodore David, R. Biju Bennie, **S. Daniel Abraham** and S. Iyyam Pillai, *Journal of Chemical and Pharmaceutical Research*, 2015; 7(5): 1159.

- ❖ “Synthesis, Structural Investigation and DNA Binding mode of Biologically Active Transition Metal Complexes of Novel Tetradentate macrocyclic ligand”, C. Joel, S. Theodore David, R. Biju Bennie, **S. Daniel Abraham**, M. Seethalakshmi, S. Iyyam Pillai, *International Journal of Inorganic and Bioinorganic Chemistry*, 2014; 4(4): 52.
- ❖ “Design, synthesis and spectral characterisation of novel acyclic ligand and their transition metal complexes as selective DNA binding agents”, C. Joel, S. Theodore David, R. Biju Bennie, **S. Daniel Abraham** and S. Iyyam Pillai, *Der Pharma Chemica*, 2014; 6(4): 244.
 - ❖ “Structures, spectra and DNA binding properties of N₂O₂ based acyclic ligand and its complexes with Co(II), Ni(II), Cu(II) and Zn(II) metal ions”, R. Biju Bennie, S. Theodore David, C. Joel, **S. Daniel Abraham**, S. Iyyam Pillai, *International Journal of Inorganic and Bioinorganic Chemistry*, 2015; 5(2): 49.
- ❖ “Studies on binding affinities of phenylalanine based Schiff base metal complexes on bovine serum albumin”, R. Biju Bennie, S. Theodore David, C. Joel, **S. Daniel Abraham**, M. Seethalakshmi, S. Iyyam Pillai, *Der Pharma Chemica*, 2014; 6(5): 343.
- ❖ “Synthesis, Spectral Characterization and Antimicrobial Studies of Schiff base Transition Metal Complexes derived from Cuminaldehyde and 4-Aminoantipyrine”, R. Biju Bennie, *S. Theodore David, M. Sivasakthi, S. Asha Jeba Mary, M. Seethalakshmi, **S. Daniel Abraham**, C. Joel, R. Antony, *Chemical Science Transactions*, 2014; 3(3):937
- ❖ “Synthesis, Spectral Characterization and antimicrobial activity of transition metal complexes of ((R, 2E)-2-(1-(S)-3-oxobutan-2-ylimino)acenaphthylen-2(1H)-ylideneamino) propanoic acid”, S. Magala Sathyasheeli, S. Theodore David, S. Kirubaharan, R. Biju Bennie, C. Joel, **S. Daniel Abraham**, V.Thanga Pandian, *International Journal of Inorganic and Bioinorganic Chemistry*, 2015; 5(3): 56.
- ❖ “Modern spectral studies on the probing of DNA with tetraimine macrocyclic Schiff base copper(II) complex”, C. Joel, S. Theodore David, N. Nanthakumar, R. Biju Bennie, **S. Daniel Abraham**, M. Seethalakshmi, *International Journal of Science and Technoledge*, 2014; 2(10): 51.
- ❖ “Spectral, Fluorescence and Thermal studies of -Diketone ligand and their metal complexes”, R. Biju Bennie, S. Theodore David, M. Theetharappan, C. Joel, **S. Daniel Abraham**, M. Seethalakshmi, *International Journal of Science and Technoledge*, 2014; 2(10): 23.

4. Research Interests (Specialisations)

Nanomaterials, Photo catalyst, Ion-exchanger, heavy metal ions removal.

5. Courses taught (PG for the past 5 years)

Material Science, Thermodynamics and Chemical Kinetics, Environmental Chemistry, Analytical Techniques in Chemistry, Group theory and Quantum Mechanics, Electrochemistry and Spectroscopy, Bio-Inorganic Chemistry.

6. Awards

- ❖ **Seed Money Grant** (Rs. 30,000/-) award received from Madras Christian College for the academic year 2021. Project entitle on “Environmentally benign synthesis of nano metal vanadates, characterization and their photocatalytic activity” duration six months.
- ❖ Has qualified **SET** exam -2016 held by Mother Teresa Women’s University, Kodaikanal.
- ❖ **Second Science Conclave:** A Congregation of Nobel Laureates organized by *Indian Institute of Information Technology*, Allahabad, during December 08-14, 2009.
- ❖ **Summer Training Programme in Chemistry (STPIC-2009)** organized by Department of Inorganic Chemistry, University of Madras and Science City, during May 25- June 14, 2009.

7. Presentations

- ❖ Presented a paper on the title of “Study of thorium vanadate as ion-exchanger for removal on nickel ion from aqueous solution”, New advances in Chemistry and Materials held on 5th January 2016 at *Sarah Tucker College*, Tirunelveli.
- ❖ Presented a paper on the title of “Simple, rapid and economical synthesis of Lead vanadate ($\text{Pb}_2\text{V}_2\text{O}_7$) Nanospheres by Microwave-assisted combustion method”, Materials and Drug Chemistry held on 27th August 2014 at *Sarah Tucker College*, Tirunelveli.
- ❖ Presented a paper on the title of “Microwave assisted combustion synthesis, structural, optical and ion exchange properties of zinc vanadate ($\text{Zn}_2\text{V}_2\text{O}_7$)”, International conference on chemistry in synergy with materials and biology held on 10th and 11th Jan 2014 at *Bishop Heber College*, Trichy.
- ❖ Presented a paper on the title of “Synthesis characterization and Antimicrobial screening activity of Alkaline Earth metal Schiff base Complexes”, *33rd Asian conference on coordination chemistry* held on 17th - 20th Oct 2011 at New Delhi.

- ❖ Presented a paper on the title of “Removal of lead ions using CeVO_4 as an ion-exchanger”, Emerging Trends in Chemistry held on 6th January 2016 at *Sadakathullah Appa College*, Tirunelveli.
- ❖ Presented a paper on the title of “Photocatalytic degradation of methylene blue by microwave assisted combustion synthesized $\text{Cd}_2\text{V}_2\text{O}_7$ photocatalyst”, National conference on ecology and conservation held on 12th and 13th Dec 2013 at *St. John’s College*, Palayamkottai.
- ❖ Presented a paper on the title of “Ultrasonic investigation of molecular interactions in liquids-determination of the stability constant for the donor-acceptor complexes of N,N-dimethyl aniline and acetophenone in n-hexane”, Advanced Topics in Chemistry held on 4th and 5th February 2011 at *St. John’s College*, Palayamkottai.

8. Resource Persons

Resource person in the “**In-service Training programme for Secondary Grade Science Teachers**” sponsored by Tamilnadu State Council for Science and Technology, held on 26th to 30th November 2012 at St. John’s College, Palayamkottai.

9. Administrative Positions

- ❖ Served as Nodal Officer for the Department Representative Election.
- ❖ Department Nodal Officer for the placement cell.
- ❖ Department Nodal Officer for the Covid-19 College Task Force.