Curriculum Vitae

Dr. K. V. Vivekananda, M.Sc. Ph.D
Bhabha Atomic Research Centre, Mumbai, India.
Associate Professor (Research),
Vignan's Institute of Information Technology(A),
Visakhapatnam, Andhra Pradesh, India.

Address for Correspondence D. No. 12-245, Opp. M. P. E. School,
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Srikakulam District. Pin-532001.
Andhra Pradesh, India.

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Personal Details Date of Birth: 18th June, 1985
Sex: Male
Nationality: Indian

Permanent Address D. No. 12-245, Opp. M. P. E. School,
Mandal Street, Srikakulam.
Srikakulam District. Pin-532001.
Andhra Pradesh, India.

Education

2009 - 2015 ***PhD in Chemistry*** from Bhabha Atomic Research Centre, Mumbai, India. (***In Collaboration with University of Texas, College Station,*** **USA**)
Research Advisor: **Prof. Vimal K. Jain**
Thesis Title: *"**Synthesis and characterization of multinuclear/ Supra-molecular complexes of platinum group metals with chalcogen ligands**".*

2005 - 2007 ***M.Sc. in Chemistry*** from Andhra University, Visakhapatnam, India. Specialization in **Organic Chemistry with distinction.**

2002 - 2005 ***B.Sc. in Mathematics, Physics, Chemistry*** from Andhra University, Visakhapatnam, India. Graduated with *1st* Class.

Research Experience

- **Synthesis of several supramolecular palladium complexes which showed excellent catalytic activity in Suzuki C–C coupling reactions with very high turn-over numbers.**
- Focused on constructing macrocyclic assemblies of Pd and Pt complexes with chalcogen ligands making use of supramolecular interactions.
- Synthesis of various organic 4, 4′-mono and di pyridyl diselenides/ tellurides.
- Various spectroscopic techniques for characterization of metal complexes and organic ligands.
- Research findings were published in various peer reviewed international journals.
- Currently working on magnetic materials and multi-ferroics.

Current Research Interests

- **Homogenous and Heterogenous Catalysis**
- Coordination Polymers / Metal Organic Frameworks (MOFs) and their properties.
- Chemistry of Chalcogens.
- Study of Host-Guest interactions in metal organic complexes.
- Applications of Supramolecular interactions in Medicine and Catalysis.
- Chemical Crystallography.
- Carbon nano particles and magnetite nano particles.

Special Skills and Techniques

1. Synthesized and grew single crystals of supramolecular coordination complexes, coordination polymers and organic ligands.
2. Skilled in analyzing, separating, and mounting single crystals for **Single crystal X-ray diffraction techniques.**
3. Hands on experience in handling the following instruments and analyzing the data from them. **Nuclear Magnetic Resonance (NMR) Spectroscopy, Fourier Transformed Infrared Spectrophotometer (FT-IR), UV-Visible Spectrophotometer**
4. Worked in maintaining laboratory safety and quality control services for the laboratory. Experienced in handling various chemicals including toxic, flammable and in handling Liquid N_2, Schlenk line and Fume hood.

Teaching Experience and Other Skills & Responsibilities

1. Experienced as Chemistry Lecturer for Post Graduation Courses for two years i.e., 2008-2009, in Gayatri College of Science & Management, Srikakulam.

2. Experienced as Chemistry Lecturer on contract basis for Post-Graduation Courses during 2009, in Government Degree & PG College, Tekkali, Srikakulam.

3. Experienced in leading the students in teaching classes and laboratory experiments along with safety precautions during teaching and research career.

4. Successfully completed the recommended coursework for Ph. D program from **BARC Training School (53rd batch, OCES Chemistry)** in the period of Sept. 2009 to July 2010.

5. **Currently working as *Associate Professor* in Vignan's Institute of Information Technology (Autonomous), Visakhapatnam, Andhra Pradesh, India since 2016.**

6. Coordinator for Internal Quality Assurance Cell, Basic Sciences and Humanities, Vignan's Institute of Information Technology (Autonomous), Visakhapatnam, Andhra Pradesh, India since 2016.

7. Lead Coordinator for I B. Tech, ECE branch, Basic Sciences and Humanities, Vignan's Institute of Information Technology (Autonomous), Visakhapatnam, Andhra Pradesh, India since 2017.

8. Module Coordinator for college level I B. Tech, Basic Sciences and Humanities, Vignan's Institute of Information Technology (Autonomous), Visakhapatnam, Andhra Pradesh, India since 2021.

9. Exam Cell Coordinator for I B. Tech, Basic Sciences and Humanities, Vignan's Institute of Information Technology (Autonomous), Visakhapatnam, Andhra Pradesh, India since 2021.

10. Criteria II Coordinator for NAAC, dealing all the works related to Teaching and evolution in the department of Basic Sciences and Humanities, Vignan's Institute of Information Technology (Autonomous), Visakhapatnam, Andhra Pradesh, India since 2021.

11. Acted as ***Paper setter and Evaluator*** for external examinations conducted by **Centurion University** and other reputed autonomous institutions since 2017.

12. Explored through the world class learning platform Coursera and got trained in 16 online certification courses for career development by top Universities and Companies.

a. Successfully completed a Coursera program in ***Chemistry from University of Kentucky.***

b. Successfully completed a Coursera program in ***Materials Science: 10 Things Every Engineer Should Know from University of California, Davis.***

c. Successfully completed a Coursera program in ***Quantum Mechanics from University of Colorado Boulder.***

d. Successfully completed a Coursera program in ***Introduction to Molecular Spectroscopy from University of Manchester.***

e. Successfully completed a Coursera program in ***Material Behavior from Georgia Institute of Technology.***

f. Successfully completed a Coursera program in ***Organic Solar Cells: Theory and Practice from Technical University of Denmark (DTU).***

g. Successfully completed a Coursera program in ***Electrodynamics: An Introduction from Korea Advanced Institute of Science and Technology.***

h. Successfully completed a Coursera program in ***Epidemics, Pandemics and Outbreaks from University of Pittsburgh.***

i. Successfully completed a Coursera program in ***AI For Everyone deeplearning.ai from Stanford University.***

j. Successfully completed a Coursera program in ***Ferrous Technology I from Pohang University of Science and Technology.***

k. Successfully completed a Coursera program in ***Plastic electronics from École Polytechnique.***

l. Successfully completed a Coursera program in ***Astro Tech: The Science & Technology behind Astronomical Discovery from University of Edinburgh.***

m. Successfully completed a Coursera program in ***Introduction to High-Throughput Materials Development from Georgia Institute of Technology.***

n. Successfully completed a Coursera program in ***Nanotechnology and Nano Sensors, Part 1 Technion from Israel Institute of Technology.***

o. Successfully completed a Coursera program in ***Material processing from Georgia Institute of Technology.***

p. Successfully completed a Coursera program in ***Our Earth, Its Climate, History and Processes from University of Manchester.***

Research Publications

1. "*Syntheses of Pd (II)/Pt (II) complexes with non-chelating 4-pyridylselenolate ligand ranging from mononuclear to macrocyclic structures and their utility as catalysts in Suzuki C−C coupling reaction*"
K. V. Vivekananda, S. Dey, A. Wadawale, N. Bhuvanesh, V. K. Jain,
Dalton Trans., 42 (**2013**) 14158-14167.

2. "*Supramolecular 3-/4-mercaptobenzoic acid complexes of palladium (II) and (II) stabilized by hydrogen bonding*"
K. V. Vivekananda, S. Dey, A. Wadawale, N. Bhuvanesh, and V. K. Jain,
Eur. J. Inorg. Chem., (**2014**) 2153-2161.

3. "*Supramolecular macrocyclic Pd (II) and Pt (II) squares and rectangles with aryldithiolate ligands and their unprecedented catalytic activity in Suzuki C−C coupling reaction"*
K. V. Vivekananda, S. Dey, D. K. Maity, N. Bhuvanesh and V. K. Jain, *Inorg. Chem*., 54 (**2015**) 10153-10162.

4. "*Silver(I) coordination polymer of 4,4'-dipyridyl selenide and its solvothermolysis*"
Goutam Kumar Kole, **K. V. Vivekananda**, Mukesh Kumar, Sandip Dey and Vimal K. Jain, *International Journal of Chemistry*, 3 (3) (**2014**) 263-268.

5. "*Hemilabile silver(I) complexes containing pyridyl chalcogenolate (S, Se) ligands and their utility as molecular precursors for silver chalcogenides*"
Goutam Kumar Kole, **K. V. Vivekananda**, Mukesh Kumar, Rakesh Ganguly, Sandip Dey and Vimal K. Jain, *CrystEngComm*, 17 (**2015**) 4367-4376.

6. Macrocyclic *Pd (II)* dithiolate complexes as catalysts in Heck reactions
Pravin A. Mane, Sandip Dey and **K. V. Vivekananda**, *Tetrahedron Letters*, *58* (**2017**) 25-29.

7. *"Reactivity of 4-Pyridyltellurolate with Pd (II)/Pt (II) Complexes"*
S. Dey, **K. V. Vivekananda**, A. Wadawale, V. K. Jain and N. Bhuvanesh, *ChemistrySelect*, *2* (**2017**) 5073–5079.

8. *"Supramolecular Pt and Pd complexes of 4,4'-dipyridylditelluride/diselenide ligands through self assembly"*
S. Dey**, K. V. Vivekananda**, N. Bhuvanesh and V. K. Jain, *Eur. J. Inorg. Chem*. (**2018**) 3579–3586.

9. *"Superparamagnetism in BMFO – NZFO multiferroic nanocomposites"*
B. Dhanalakshmi, **K. V. Vivekananda**, B. Parvatheeswara Rao, P.S.V. Subba Rao, Physica-*B*: Condensed Matter, 571 (**2019)** 5-9

10. **"***Enhanced dielectric and magnetic properties in Mn doped Bismuth Ferrite Multiferroic Nanoceramics*"
B. Dhanalakshmi, B. Chandra Sekhar, **K. V. Vivekananda,** B. Srinivasa Rao, B. Parvatheeswara Rao, P.S.V. Subba Rao, Applied *Physics A*, **2020** (126) 557

11. "*Enhanced magnetoelectric coupling in $Bi_{0.95}Mn_{0.05}FeO_3$–$Ni_{0.5}Zn_{0.5}Fe_2O_4$ nanocomposites for spintronic applications*"
K. V. Vivekananda, B. Dhanalakshmi, B. Parvatheeswara Rao, P. S. V. Subba Rao, *Applied Physics A*, **2021** (127) 187

12. "*Long term evaluation on surface water vulnerability assessment of Kondakarla Ava, A freshwater lake in Visakhapatnam, Andhra Pradesh"* **K. V. Vivekananda**[a], Vinay Sagar[b], K. Sirisha[a]. Accepted in *Environment Sustainability and Development.*

Conferences/Symposia

1. "*Syntheses of Pt (II) complexes with non-chelating 4-pyridylselenolate ligand ranging from mononuclear to supramolecular structures*"

   K. V. Vivekananda, S. Dey, V. K. Jain and N. Bhuvanesh

   "4th DAE-BRNS Interdisciplinary Symposium on Materials Chemistry" during 11th-15th December 2012, held at Bhabha Atomic Research Centre, Mumbai.

2. "*Palladium (II) and platinum (II) complexes with 4-pyridylselenolate ligand*"

   K. V. Vivekananda, S. Dey, V. K. Jain and N. Bhuvanesh

   "7th CRSI-RSC Symposium in Chemistry and 15th CRSI National Symposium in Chemistry" during January 31st - February 3rd 2013, held at Banaras Hindu University, Varanasi.

3. "*Supramolecular assemblies of palladium (II) and platinum (II) complexes with 3-/4-mercaptobenzoic acid via hydrogen bonding*"

   K. V. Vivekananda, S. Dey, A. Wadawale, N. Bhuvanesh and V. K. Jain

   "5th DAE-BRNS Interdisciplinary Symposium on Materials Chemistry" during 9th-13th December 2014, held at Bhabha Atomic Research Centre, Mumbai.

4. Participated in "3rd DAE-BRNS Interdisciplinary Symposium on Materials Chemistry" during December 2010, held at Bhabha Atomic Research Centre, Mumbai.

5. Participated in National Seminar on "Modern Trends in Chemistry Education", held at GITAM University, Visakhapatnam during 2006.

6. Participated in "International Workshop on Advanced Materials", held at National Institute of Science & Technology, Berhampur, ODISHA during 19th – 21st December, 2017.

   K. V. Vivekananda, S. Dey, A. Wadawale, N. Bhuvanesh and V. K. Jain

   "Supramolecular macrocyclic Pd(II) and Pt(II) squares and rectangles as smart catalysts"

7. Participated in "Emerging trends in Materials Science and Technology, NSETMST-2018", held at Department of Physics, Andhra University, during 9th – 10th March, 2018.

   K. V. Vivekananda, B. Dhanalakshmi, B. Parvatheeswara Rao, P.S.V. Subba Rao *"Magnetoelectric coupling enhancement in* $Bi_{0.95}Mn_{0.05}FeO_3$–$Ni_{0.5}Zn_{0.5}Fe_2O_4$ *nanocomposites"*

8. Presented paper during International Conference on Magnetic materials and Applications, ICMAGMA 2018 in NISER, Bhubaneswar, ODISHA during 9th – 13th December, 2018.

   K. V. Vivekananda, B. Dhanalakshmi, B. Parvatheeswara Rao, P.S.V. Subba Rao **"***Investigations on structural, dielectric and magnetic properties of Mn doped BFO multiferroic nanoceramics*"

9. Presented paper during APSC 2019 Conference held at B.R. Ambedkar University, Srikakulam during 28th - 30th November, 2019.
   K. V. Vivekananda, S. Dey, A. Wadawale, N. Bhuvanesh and V. K. Jain

   "Supramolecular 3-/4-mercaptobenzoic acid complexes of Pt(II)/Pd(II) stabilized by H-bonding"

10. Participated in many online webinars in the pandemic era which includes many colloquiums, seminars, conferences etc. and was certified.

Awards & Rewards

1. Awarded NPTEL Elite Certificate for successfully completing the course of **"Mechanisms in Organic Chemistry"** certified by **IIT Bombay.**
2. Rewarded as the "**First ever research scholar to present yearly work of all the Scientists from Chemistry Division"** during Annual review meeting of BARC, Department of Atomic Energy.

3. ***Best Poster award*** in "4th DAE-BRNS Interdisciplinary Symposium on Materials Chemistry" during 11th-15th December 2012, held at Bhabha Atomic Research Centre, Mumbai.
4. ***Best Poster award*** in "5th DAE-BRNS Interdisciplinary Symposium on Materials Chemistry" during 9th-13th December 2014, held at Bhabha Atomic Research Centre, Mumbai.
5. Got the **1st prize in Chemistry interviews** conducted at **Coastal Andhra Zonal Level** during Brain Share Events at graduation level, 2004.
6. Got the **1st prize in Chemistry Seminars** conducted at **Coastal Andhra Zonal Level** during Brain Share Events at graduation level, 2004.
7. Got the **First prize in District Level** in Maths, Physics and Chemistry Talent tests conducted by District Science Association at graduation level, 2004.

Contact Details for Reference

1. **Prof. V. K. Jain,** Director, UM-DAE Centre for Excellence in Basic Sciences, Health Centre Building, University of Mumbai, Kalina Campus, Santacruz (E), Mumbai–400085, India. E-mail: jainvk@cbs.ac.in ; Mob.No : 9757000357

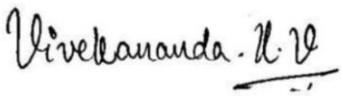
2. **Dr. S. Kannan,** Head, Fuel Chemistry Division, BARC, Trombay, Mumbai–400085, India. E-mail: skannan@barc.gov.in ; Tel. No : 022-25593933

3. **Dr. Sandip Dey**, Scientific officer (G), S&PM Section**,** Chemistry Division, BARC, Trombay, Mumbai–400085, India. Email: dsandip@barc.gov.in ; Tel. No : 022-25592589

Declaration

I hereby declare that the above information is correct and true to the best of my knowledge.

Date: 03-05-2022



(Dr. K. V. VIVEKANANDA)

Place: VISAKHAPATNAM