Name of the Teaching Staff	Dr. J. Prabhu							
Designation	Assistant Professor							
Department / School	CHEMISTRY / SSAMM					. \		
Date of Joining the Institution	10/06/2010							
Qualification with Class / Grade	UG	P	PG Ph.D.				· ·	
	I	]	I Distinction					
Area of Specialization	Supra molecular Chemistry, Organic Sensors and Nano Sensors							
Research Interests	Molecular design and synthesis / Fluorescent Chemo Sensors							
	Under Graduate					Post Graduate		
Subjects Teaching	Forensic Science laboratory Applied Chemistry Environmental Studies Engineering Chemistry Chemistry for Engineers			Instrumental methods of Chemical Analysis Atomic Structure Thermodynamics Analytical Chemistry Heterocyclic Chemistry Physical Chemistry for Masters				
Total Experience in	Teaching Industry			Research				
Years	15	15 Nil				8		
Papers Published	National 07			International	15			
Papers Presented in Conference	National 29			International	12			
Conferences / Symposiums / Seminars / Workshops Participated	National	02			International	01		
FDP / STTP / MDP / Summer / Winter School attended	<ul> <li>FDP on Question Paper setting and Evaluation</li> <li>FDP on Project Proposal Writing</li> </ul>							
M.Phil. / Ph.D. Guide	Field				University			
ship	Chemosensors			01				
Ph.D. Projects Guided	Ph.D.s			01 ergoing)	Project at Master's Level 08		08	
Professional Memberships	IAENG     GLASS BLOWERS ASSOCIATION							
Consultancy Activities	Nil							
Awards & Honours	He has received Best Presentation Award in Sacred Heart College, Tirupattur, India.							
Grants Fetched	He fetched short term grant from Karunya University.							
Interaction with Professional Institutions								
Educational Details	B.Sc. – Government Arts College, Coimbatore  M.Sc. – Sri Ramakrishna Mission Vidyalaya							

	Ph.D Karunya Institute of Technology and Sciences, Coimbatore
Experience	
Contact Details	Room No: 009 Building: S& H Mobile: 9894823458 Intercom: 4002 E-mail: prabhuj@karunya.edu, viktor_prabhu@gmail.com Webpage(if any) – Nil

## **Papers Published**

# **Journals with Scopus**

#### 2014

1 **Jeyaraj Prabhu**,; Krishnaswamy, Velmurugan,; Raju Nandhakumar\*. A highly selective and sensitive naphthalene-based chemodosimeter for Hg<sup>2+</sup> ions. *J. Lumin*., **2014**, *145*, 733-736.

## 2015

- 2 J. Prabhu,; K, Velmurugan.; R, Nandhakumar.\* Pb<sup>2+</sup> ion induced self-assembly of anthracene based chalcone with a fluorescence turn on process in aqueous media. *J. Anal. Chem*, 2015, 70, 8, 943–948
- 3 **J. Prabhu**,; K, Velmurugan.; R, Nandhakumar.\* Development of fluorescent Lead II sensor based on anthracene derived chalcone. *Spectrochim. Acta A*, **2015**, *144*, 23-28.

# 2016

1 S, Santhoshkumar.; K, Velmurugan.; **J, Prabhu.**; G, Radhakrishnan.; R, Nandhakumar,\* A Naphthalene derived Schiff base as a selective Fluorescent probe for Fe2+. *Inorg. Chim. Acta.*, *2016*, 439, 1-7.

## 2017

- Prabhu, J.; Velmurugan, K.; Raman, A.; Duraipandy, N.; Kiran, M. S.; Easwaramoorthi, S.; Nandhakumar, R. A Simple Chalcone Based Ratiometric Chemosensor for Sensitive and
- Selective Detection of Nickel Ion and its Imaging in live cells, **Sens. Actuators**, **B**, **2017**, 238,

306-317.

2. **Prabhu, J.;** Velmurugan, K.; Nandhakumar, R. Symmetric fluorescent probes for the selective recognition of Ag<sup>+</sup>-ion *via* restricted C=N isomerization and on-site visual sensing

# applications, *J. Photochem. Photobio. A*, 2017, 337, 6–18. (INVITED FEATURE ARTICLE)

3. Derin, Don.; K, Velmurugan.; **J,Prabhu**.; N, Bhuvanesh.; A, Thamilselvan.; R, Nandhakumar.\* A dual analyte fluorescent chemosensor based on a furan-pyrene conjugate for Al3+ & HSO3-. *Spectrochim. Acta A*, 2017, 174, 62-69.

## 2018

- Krishnaswamy, Velmurugan.; Jeyaraj, Prabhu.; Arunachalam, Raman.; Natarajan, Duraipandy.; Manikantan, Syamala Kiran.; Shanmugam, Easwaramoorthi.; Lijun, Tang.; Raju Nandhakumar\*. Dual Functional Fluorescent Chemosensor for discriminative detection of Ni2+ and Al3+-ions and its imaging in living cells. ACS Sustainable Chem. Eng., 2018, 6 (12), pp 16532 16543. DOI: 10.1021/acssuschemeng.8b03625
- 2. N, Bhuvanesh.; S, Suresh.; J, Prabhu.; K, Kannan.; V, Rajesh Kannan.; R, Nandhakumar\* Ratiometric fluorescent Chemosensor for Silver Ion and its bacterial cell imaging. Opt. Mater., 2018, 82, 123-129.
- 3. S, Suresh.; N, Bhuvanesh.; **J, Prabhu**.; A, Thamilselvan.; S, Rex Jeya Rajkumar.; K, Kannan.; V, Rajesh Kannan, and R. Nandhakumar\* Pyrene based chalcone as a reversible fluorescent chemosensor for Al3+ ion and its biological applications, **J Photochem Photobiol A Chem., 2018**, 359, 172-182.

#### 2019

1. **J, Prabhu**.; K, Velmurugan.; A, Raman.; N, Duraipandy.; M.S, Kiran.; S, Easwaramoorthi.; Lijun, Tang.; R, Nandhakumar\*. Pyrene-phenylglycinol linked reversible ratiometric fluorescent chemosensor for the detection of aluminium in nanomolar range and its bio-imaging. **Anal. Chim. Acta.**, 1090, 114-124, 2019. doi.org/10.1016/j.aca.2019.09.008

- N. Bhuvanesh, P. Uttam Kumar, L. Pushparaj, S. Suresh, T. Daniel Thangadurai, J. Prabhu\* and R. Nandhakumar\* Benzene linked dipodal naphthalene: chemosensor with colorimetric enhancement and fluorimetric quenching for Fe3+ ion and its application in live cell imaging. J. Anal. Chem, 2020, 75, 12, 1554-1564. DOI: 10.1134/S1061934820120047.
- S, Suresh.; N, Bhuvanesh.; J, Prabhu\*.; R, Nandhakumar\* A study of fluorescent chemosensor for Cu (II) based on an imidazole derivative and its bioimaging. J. Anal. Chem, 2020, 75, 12, 1565-1574. DOI: 10.1134/S1061934820120126.
- 3. K. Velmurugan, R. Vickram, R. Karthick, C. V. Jipsa, S. Suresh, G. Prabakaran, **J. Prabhu**, G. Velraj, R. Nandhakumar\* Binol diuryl dipyrene fluorescent probe: dual detection of

- silver and carbonate ions and its bioimaging applications. **J Photochem Photobiol A Chem., 2020**, 401, 112737. https://doi.org/10.1016/j.jphotochem.2020.112737.
- Uppalapati Pramod Kumar.; Tongxiang, Liang.;\* C, Joseph Kennady.; Raju, Nandhakumar\*.; Jayaraj, Prabhu. Influence of Positional Isomeric Spacers of Naphthalene Derivatives on Ni–W Alloy Electrodeposition: Electrochemical and Microstructural Properties. ACS Omega, 5, 7, 3376-3388, 2020, DOI: 10.1021/acsomega.9b03599.
- 5. C. Immanuel David, N. Bhuvanesh, Haritha Jayaraj, A. Thamilselvan D. Parimala devi, A. Abiram J. Prabhu \*, and R. Nandhakumar\* Experimental and theoretical studies on simple S-S bridged dimeric Schiff base: selective chromo-fluorogenic chemosensor for nanomolar detection of Fe2+ & Al3+ ions and its varied applications. ACS Omega, 5, 6, 3055-3072, 2020. DOI: 10.1021/acsomega.9b04294

- 1. K, Velmurugan.; R, Vickram.; CV, Jipsa.; R, Karthick.; G, Prabakaran.; S, Suresh,; J, Prabhu.; G, Velraj.; L, Tang.; R, Nandhakumar\*. Quinoline based reversible fluorescent probe for Pb2+: applications in milk, bioimaging and INHIBIT molecular logic gate. **Food Chem., 2021**, in press.
- G, Prabakaran.; K, Velmurugan.; R, Vickram.; C, Immanuel David.; A, Thamilselvan.; J, Prabhu.; R, Nandhakumar\*. Triphenyl-imidazole based reversible coloro/fluorimetric sensing and electrochemical removal of Cu2+ ions using capacitive deionization and molecular logic gates. Spectrochim. Acta A, 2021, 246, 119018. https://doi.org/10.1016/j.saa.2020.119018

## **Papers Presented in Conference**

List of Conferences / Workshops / Symposium attended and presented.

- 1. G. Prabakaran.; **J. Prabhu**.; R. Nandhakumar\*. Highly chemoselective colorimetric/fluorometric dual-channel sensor for the selective and sensitive detection of Cu2+. Two days national conference on Recent trends in medicinal, materials, environmental & battery research in chemistry., Department of Chemistry, Karpagam academy of higher education, Coimbatore, Tamil Nadu, India, March 12-13, 2020. ORAL (BEST PRESENTATION AWARD II prize)
- 2. G. Prabakaran.; J. Prabhu.; R. Nandhakumar\*. Schiff base derived useful scaffold exhibiting Cu ion sensing by Fluoro/colorimetry. First International Conference on Frontiers in Chemical Sciences (ICFCS-2020)., Department of Applied Chemistry, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India, March 4-5, 2020. POSTER
- 3. S. Suguna.; J. Prabhu.; R. Nandhakumar\*. GO-PPD nanohybrids as fluorescent chemosensors for metal ion detection. First International Conference on Frontiers in Chemical Sciences (ICFCS-2020)., Department of Applied Chemistry, Karunya Institute of Technology

- and Sciences, Coimbatore, Tamil Nadu, India, March 4-5, 2020. POSTER
- 4. Anila Puthoor.; Abdul Basith M Mansoor.; G. Prabakaran.; J. Prabhu\*.; R. Nandhakumar\*. Naphthalene fluorophores for the specific recognition of Aluminium ions. First International Conference on Frontiers in Chemical Sciences (ICFCS-2020)., Department of Applied Chemistry, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India, March 4-5, 2020. POSTER
- 5. Abdul Basith M Mansoor.; Anila Puthoor.; G. Prabakaran.; J. Prabhu\*.; R. Nandhakumar\*. Copper induced fuorescence quenching of Schiff base fluorophores. First International Conference on Frontiers in Chemical Sciences (ICFCS-2020)., Department of Applied Chemistry, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India, March 4-5, 2020. POSTER
- 6. . R. Nandhakumar\*.; K. Velmurugan.; R. Vickram.; R. Karthick.; C. V. Jipsa.; S. Suresh.; G. Prabakaran.; J. Prabhu.; G. Velraj. Strategically modified Binol-pyrene conjugate as reverse PET assisted reversible fluorescent probe for dual detection of silver and carbonate ion and its bioimaging applications. One day national conference on Recent trends in Chemistry-2020 (RTC-2020)., Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu, India, February 7, 2020. POSTER
- 7. **J. Prabhu\***.; Anila Puthoor.; Abdul Basith M Mansoor.; G. Prabakaran.; R. Nandhakumar\*. Imidazole base fluorescent chemosensor for the detection of Cu2+ ion. One day national conference on Recent trends in Chemistry-2020 (RTC-2020)., Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu, India, February 7, 2020. POSTER
- 8. G. Prabakaran.; **J. Prabhu\***.; R. Nandhakumar\*. Naphthaldehyde derived Schiff base as fluorescent chemosensor for the detection of Cu2+ ions. One day national conference on Recent trends in Chemistry-2020 (RTC-2020)., Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu, India, February 7, 2020. POSTER
- S. Suguna.; K. Bhavya.; J. Prabhu\*.; R. Nandhakumar\*. GO-PPD Nanocomposites: fluorescent chemosensors for metal ions. One day national conference on Recent trends in Chemistry-2020 (RTC-2020)., Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu, India, February 7, 2020. POSTER (BEST POSTER PRESENTATION AWARD)

R. Nandhakumar\*, J. Prabhu and K. Velmurugan. Dual Functional Fluorescent Chemosensor for discriminative detection of Ni2+ and Al3+ -ions and its imaging in living cells. National Conference on Recent Trends in Chemistry (RTC'19), Post Graduate and Research Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, Coimbatore – 641 046, TamilNadu, India, February 1 – 2, 2019. POSTER –PP67

- 2. **J. Prabhu**.; S. Suresh.; N. Bhuvanesh.; R. Nandhakumar\*. A Simple Bis-Salicylaldehyde based chemosensor for the detection of Ce3+ ions in Aqueous media. National Conference on Recent Trends in Chemistry (RTC'19), Post Graduate and Research Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, Coimbatore 641 046, TamilNadu, India, February 1 2, 2019. POSTER –PP77
- 3. S. Suresh.; N. Bhuvanesh.; J. Prabhu.; R. Nandhakumar\*. New Pyridine based chemosensor for the detection of tryptophan. National Conference on Recent Trends in Chemistry (RTC'19), Post Graduate and Research Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, Coimbatore 641 046, TamilNadu, India, February 1 2, 2019. POSTER PP111

- J, Prabhu.; K, Velmurugan.; R, Nandhakumar\*. Ratiometric fluorescent detection of Nickel ion and its bioimaging studies. National Conference on Recent Trends in Chemistry (RTC'18), Post Graduate and Research Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, Coimbatore 641 046, TamilNadu, India, February 2, 2018.
   POSTER PP36
- K, Velmurugan.; J, Prabhu.; R, Nandhakumar\*. Discriminative fluorimetric detection of Ni2+ and Al3+ ions and its bio imaging applications. National Conference on Recent Trends in Chemistry (RTC'18), Post Graduate and Research Department of Chemistry, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, Coimbatore 641 046, TamilNadu, India, February 2, 2018. POSTER PP57
- 3. R, Nandhakumar.;\* K, Velmurugan.; **J, Prabhu**. Axially Chiral Binol based fluorescent chemosensors for detection of metal ions and its bioimaging. 2nd International Conference on Interdisciplinary approach in Science and Technology (ICIAST), Rotunda Gardens, Colombo, Sri Lanka, May 25-28, 2018. OP– 2.
- 4. D, Thamarai Selvi.; S, Suresh.; R, Sowmiya.; R, Nandhakumar.;\* **J, Prabhu**. Selective fluorescence turn-off sensing for Pd2+ ion: application in paper strips and cell imaging. UGC and DST-CURIE sponsored one day National Seminar on "Recent Innovations in Science and Technology (RIST-2018)", Department of Chemistry, Avinashilingam Institute for Home Science and Higher Education for Women (Deemed-to-be University), Coimbatore 641 043, TamilNadu, India, February 23, 2018. POSTER P27.

- 1. R. Nandhakumar\*, N, Bhuvanesh.; S, Suresh.; **J, Prabhu**. Graphene Organic Hybrid materials as Fluorescent Chemosensors for Metal Ions. International Conference on Advanced Materials Science and Technology (ICAMST 2017), Department of Physics, Bannari Amman Institute of Technology, Sathyamangalam, TamilNadu, India, August 17-19, 2017. POSTER PP141
- 2. J, Prabhu.; K. Velmurugan.; R, Nandhakumar\*. A RatiometricChemosensor for Nickel Ion

Detection and its Bioimaging.Fifth National Conference on Advanced Functional Materials and Applications (NCAFMA – 2017), Department of Chemistry, Kalasalingam University, Virudhunagar, TamilNadu, India, March 30-31, 2017. POSTER – PP37

- 3. R, Nandhakumar\*.; N, Bhuvanesh.; S, Suresh.; and **J. Prabhu.** Organic Fluorescent materials for selective detection of Cations. Fifth National Conference on Advanced Functional Materials and Applications (NCAFMA 2017), Department of Chemistry, Kalasalingam University, Virudhunagar, TamilNadu, India, March 30-31, 2017. POSTER PP28 4. R, Nandhakumar\*.; N, Bhuvanesh.; S, Suresh.; and **J. Prabhu.** Graphene Organic Hybrid
- materials for selective detection of Cations. National Conference on Recent Advances in the applications of Mascromolecular materials (RAAMM 2017), Department of Chemistry, TheGandhigram Rural Institute, Gandhigram, Dindigul 624 302, TamilNadu on March 2-3, 2017.POSTER PP 21.
- 5. **J, Prabhu**.; K. Velmurugan.; R, Nandhakumar\*. Organic Fluorescent materials for selective detection of silver and its applications. National Conference on Recent Advances in the applications of Mascromolecular materials (RAAMM 2017), Department of Chemistry, TheGandhigram Rural Institute, Gandhigram, Dindigul 624 302, TamilNadu on March 2-3, 2017.POSTER PP 20.
- 6. **J, Prabhu**.; K. Velmurugan.; R, Nandhakumar\*. Colorimetric and Fluorimetric Detection of Silver. National Conference on Advanced Functional Materials and their Applications in Engineering (NCAFMAE 2017), Department of Science and Humanities, Dr. NGP Institute of Technology, Coimbatore 641 048, TamilNadu on January 25, 2017, ORAL 46.

- 1. R, Nandhakumar\*.; K, Velmurugan.; **J, Prabhu**.; N, Bhuvanesh.; S, Suresh.; Lijun, Tang\*. Benzimidazole-based fluorescent sensor: rapid and highly selective relay recognition of copper and sulfide ions in water. International Conference on Functional Materials (ICFM 2016), Center for Scientific and Applied Research, PSN College of Engineering and Technology, Tirunelveli 627152, TamilNadu on September 7-10, 2016. POSTER P72.
- 2. R, Nandhakumar\*.; K, Velmurugan.; **J, Prabhu**.; N, Bhuvanesh.; S, Suresh. Multi-analyte, Ratiometric and Relay Recognition of a 2,5-diphenyl-1,3,4-oxadiazole-based Fluorescent Sensor Through Modulating ESIPT. International Conference On Materials For Sustainable Future (ICMSF 2016), Department of Chemistry, School of Chemical and Biotechnology, SASTRA University, Thanjavur 613 401, TamilNadu on July 14–15, 2016. POSTER 72. (Best Presentation Award)
- 3. R, Nandhakumar\*.; K, Velmurugan.; **J, Prabhu**.; N, Bhuvanesh.; S, Suresh. Synthesis, antibacterial, anti-oxidant and molecular docking studies of imidazoquinolines. Two day National Conference on "Advances in Environmental, Synthetic and Medicinal Chemistry, Department of Chemistry, Karpagam University, Coimbatore, TamilNadu, India, April 6-7, 2016, POSTER MC-011.

4. **J, Prabhu**,; K, Velmurugan.; R, Nandhakumar\*. Effect of Positional isomers for selective sensing of Ag+ ions via fluorimetric and electrochemical behaviours. Two day National Conference on "Advances in Environmental, Synthetic and Medicinal Chemistry, Department of Chemistry, Karpagam University, Coimbatore, TamilNadu, India, April 6-7, 2016, ORAL – SC – 009.

## 2015

- 1. **Jeyaraj, Prabhu**.;Krishnaswamy, Velmurugan.; Raju, Nandhakumar\*,Pyrene based ratiometric fluorescent Chemosensor: Selective recognition of Ni2+ ion and its bio imaging.National Conference on Recent Trends in Bio-inorganic and Organometallic Chemistry (NCBOC 2015),Sri Shakthi Institute of Engineering and Technology, Coimbatore, TamilNadu, India, October 15-17, 2015, ORAL 30.
- 2. **J, Prabhu**,; K, Velmurugan,; R, Nandhakumar,\*Chalcone base ratiometric sensor for nickel ion and its bioimaging applications. 10 th Mid-Year CRSI Symposium in Chemistry, Department of Chemistry, NIT Trichy and Bharathidasan University, Trichy, TamilNadu, India, July 23-25, 2015. POSTER PP122
- 3. K, Velmurugan,; **J, Prabhu**,;R, Nandhakumar,\*Pyrene pyridine-conjugate as Ag Selective Fluorescence Chemosensor. 10 th Mid-Year CRSI Symposium in Chemistry, Department of Chemistry, NIT Trichy and Bharathidasan University, Trichy, TamilNadu, India, July 23-25, 2015. POSTER PP270
- 4. K. Velmurugan, **J. Prabhu** and R. Nandhakumar\*, The selective detection of silver and carbonate ions using a diurylpyrene appended Binolchemosensor. National Conference on Recent Advances in Chemical Sciences RACS 15, Department of Chemistry, Gandhigram Rural Institute, Dindugal, Tamilnadu, India, march 5-6, 2015. ORAL OP-3

- 1. Derin Don, K. Velmurugan, G. Prabhakaran, **J. Prabhu** and R. Nandhakumar\* Single Sensor for dual analytes: chemosensor for selective detection of Aluminium and Bisulfite ions based on a Simple Chalcone. National Seminar on Advances in Materials Chemistry ADMAC, Christian College, Chengannur, Kerala, October 15-17, 2014. ORAL OP-17
- 2. **J. Prabhu**, K. Velmurugan, R. Vickram and R. Nandhakumar, A Simple Chalcone based fluorescent enhanced chemosensor for Pb2+ ion detection in aqueous media. National Conference on Advancement in Materials Science, Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, India, September 26-27, 2014.ORAL OD-05
- 3. K. Velmurugan, **J. Prabhu** and R. Nandhakumar, A fluorescent chemosensor based on a BINOL-PYRENE Congjugate for silver ion. National Conference on Advancement in Materials Science, Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, India, September 26-27, 2014.ORAL OB-07

- 4. Krishnaswamy, Velmurugan.; **Jeyaraj, Prabhu**.; Raju, Nandhakumar\*, Quinoline-Imidazole based fluorescent sensors for the detection of metal ions in aqueous media. Third National Conference on Advanced Functional Materials and Applications (NCAFMA 2014), Department of Chemistry and Center for Nanotechnology, Kalasalingam University, Virudhunagar, TamilNadu, India, March 21-22, 2014. ORAL OP16
- 5. Krishnaswamy, Velmurugan.; **Jeyaraj, Prabhu**.; Raju, Nandhakumar\*, Quinoline-Imidazole conjugates as Fluorescent Chemosensors for metal ions. III National Conference on "Innovations in Chemistry Health and Energy" (iCHEM HE 2014), Karunya University, Coimbatore, India, February 6-8, 2014, ORAL 17
- 6. Krishnaswamy, Velmurugan.; **Jeyaraj, Prabhu**.; Raju, Nandhakumar\*, A new quinolone benzimidazole conjugate for the highly selective detection of Zn(II) by dual colorimetric and fluorescent turn-on responses. International Conference on "Chemistry Frontiers & Challenges", PSGR Krishnammal College for Women, Coimbatore, India, February 5-7, 2014. ORAL O14
- 7. **Jeyaraj, Prabhu**.;Krishnaswamy, Velmurugan.; Raju, Nandhakumar\*, A highly selective ratiometric fluorescent chemosensor for Al3+ in aqueous media. International Conference on "Chemistry Frontiers & Challenges", PSGR Krishnammal College for Women, Coimbatore, India, February 5-7, 2014. ORAL O22

- 1. **Jeyaraj, Prabhu**,;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, A pyrene Pyridine conjugate for Flourescent Recognition of Ni2+ ion in Aqueous Media. 3 rd International Science Congress (ISC 2013),Karunya University, Coimbatore, India, December 8-9, 2013. ORAL ISCA-ISC—2013-4CS-18
- 2. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,; Raju, Nandhakumar\*, A new bisbinaphthyl based enantioselective Fluorescent recognition for α-Hydroxycarboxylic Acids. 3 rd International Science Congress (ISC 2013), Karunya University, Coimbatore, India, December 8-9, 2013. ORAL ISCA-ISC—2013-4CS-17
- 3. Krishnaswamy, Velmurugan,; Jeyaraj, Prabhu,; Raju, Nandhakumar\*, Imidazoquinoline based fluorescent sensors for the detection of metal ions. National Conference on Chemosensors (NCC 2013), National Institute of Technology, Tiruchirappalli (NIT-T), India, September 19-20, 2013. ORAL OP-10. (Best Presentation Award)
- 4. **Jeyaraj, Prabhu**,;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, An anthracene based fluorescent chemosensor for Pb2+ ion in aqueous media. National Conference on Chemosensors (NCC 2013), National Institute of Technology, Tiruchirappalli (NIT-T), India, September 19-20, 2013. ORAL OP-3.
- 5. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,;Raju, Nandhakumar\*, Fluorescence sensing with turn "OFF-ON" effect of rutile and anatase TiO2 based on a Quinolinebenzimidazole conjugate.National Conference on Advanced materials for the emerging technologies (CAMET

- 2013),Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, India, July 11-12, 2013. ORAL OP-03. (Third Prize for Best Presentation)
- 6. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,; Raju, Nandhakumar\*, A Fluorescent Chemosensor for Ag+ ion based on a Bispyrene derivative. International Conference on Biological Inorganic Chemistry (ICBIC 2013), Periyar University, Salem, India. February 20-22, 2013. POSTER PP-082.
- 7. **Jeyaraj, Prabhu,**;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, A chalcone based fluorescent chemosensor for the detection of Fe3+ ions at a Physiological pH.International Conference on Biological Inorganic Chemistry (ICBIC 2013),Periyar University, Salem, India. February 20-22, 2013. POSTER PP-132.
- 8. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,; Raju, Nandhakumar\*, A novel binol based fluorescent chemosensor for the detection of Hg2+ ions in aqueous media. National Conference on Molecules to Materials solving problems of mankind (NCMM 2013), Karunya University, Coimbatore, India. February 15-16, 2013.POSTER PP-08. (Second Prize for Best Presentation)

- 1. **Jeyaraj, Prabhu**,;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, "Turn-on" Fluorescent chemosensor for the detection of Ni2+ and Al3+ ions in aqueous media. Regional Science Congress, Inidan Science Congress Association,Kongunadu Arts and Science College, Coimbatore, India. December 15-16, 2012. ORAL C.O.12.
- 2. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,; Raju, Nandhakumar\*, A novel binol based fluorescent pet chemosensor for mercury ions. Regional Science Congress, Inidan Science Congress Association, Kongunadu Arts and Science College, Coimbatore, India. December 15-16, 2012. ORAL C.O.3.
- 3. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu,**; Raju, Nandhakumar\*, A Novel Florescent Chemosensor for the Detection of mercury ions. National Conference on Nanomaterials (NCNDr. 2012), Karunya University, Coimbatore, India. December 03-04, 2012. POSTER NCN PP 48.
- 4. **Jeyaraj, Prabhu,**;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, A Highly Selective Fluorescent Chemosensor for the detection of Silver ions in aqueous media. National Conference on Advances on Science and Technology (NCAST 12),Saveetha University, Chennai, India. October 31, 2012. ORAL CH08.
- 5. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,; Raju, Nandhakumar\*, Highly Selective "Turn-On" Fluorescent Chemosensor for Hg2+ based on a Binaphthyl derivative. National Conference on Advances on Science and Technology (NCAST 12), Saveetha University, Chennai, India. October 31, 2012. ORAL -CH20. (Best Presentation Award)
- 6. Krishnaswamy, Velmurugan,; Jeyaraj, Prabhu,; Raju, Nandhakumar\*, Binol Based Fluorescent

- Chemosensor for the detection of mercury ions in aqueous media. National Conference on materials for future Technology (NCMFT-2012), Sacred Heart College, Tirupattur, India. September 28, 2012. ORAL 45.
- 7. **Jeyaraj, Prabhu**,;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, A Novel Chemosensor for Mercury Species. National Conference on materials for future Technology (NCMFT-2012), Sacred Heart College, Tirupattur, India. September 28, 2012. ORAL 44. (Second Prize for Best Presentation).
- 8. Krishnaswamy, Velmurugan,; **Jeyaraj, Prabhu**,; Raju, Nandhakumar\*, A selective and sensitive Chemodosimeter for mercury species. Currents Trends in chemistry (CTriC 2012), CUSAT, Kottayam, Kerala, India, January 20-21, 2012.ORAL 9.
- 9. **Jeyaraj, Prabhu**,;Krishnaswamy, Velmurugan,; Raju, Nandhakumar\*, Naphthalene based dosimeter for detection of mercury ions. One day National Conference on Innovations in physics and chemistry ,TejaaShakthi institute of Technology for Women, Coimbatore, TamilNadu, India, February 25, 2012. ORAL OIC006.

- 1. Velmurugan, K.; **Prabhu, J.**;Nandhakumar, R\*, Calorimetric Sensing of Cu2+ and Fluorescent Sensing of Fe3+ in Aqueous media with a Rhodamine B-coumarin conjugate. National Conference on Advanced Functional Materials and Applications (NCAFMA), Department of Chemistry and Centre for Nanotechnology, Kalasalingam University, Krishnankoil, Tamilnadu, India, December 16-17, 2011. ORAL OP-15.
- 2. **Jeyaraj, Prabhu**.; RajuNandhakumar\*, A Selective and Sensitive "Turn-On" Fluorescent Chemodosimeter for Hg2+ in Aqueous media via Hg2+ promoted Facile Desulfurization Reaction. International Symposium on Environmental Risk Assessment 2011, Bharathiar University, Coimbatore, India, October 17-19, 2011. POSTER ECA P12.
- 3. Raju, Nandhakumar\*.; **Jeyaraj, Prabhu**.; Lijun, Tang.; Fangfang.; Minghui, Liu. A New Rhodamine B coumarin Fluorophore for calorimetric recognition of Cu2+ and Fluorescent recognition of Fe3+ in Aqueous Media. International Symposium on Environmental Risk Assessment 2011, Bharathiar University, Coimbatore, India, October 17-19, 2011. POSTER ECA P10.
- 4. **Jeyaraj, Prabhu**.;Raju, Nandhakumar\*.A Naphthalene based Fluorescent Chemodosimeter for sensing Hg2+ in Aqueous media. National Conference on Mordern Trends in Science and Technology MTST-11, Dr. M. V. Shetty Institute of Technology, Mangalore, India, October 14-15, 2011. Oral C5

#### **Extra Curricular**

- 1) NCC Care taker 4 Tamil Nadu Battalion, National cadet corps
- 2) Advanced Rovers Scout Leaders certificate received from BSG, India.

# **Patents**

- 1) Ampoule Bottle Penetrator Application No.202041021145 A
- 2) A Device For Determining The Quality Of Milk Application No.202041021189A

# **Books / Book Chapters**

# **Research Group Members**

- 1) Dr. R. Nandhakumar (Research Supervisor & Carrier Counselor) Associate Professor/Chemistry / SSAMM
- 2) Dr. K. Velmurugan (Post Doctorial Fellowship/ Jiang University / China)