**Curriculum Vitae**

Dr. V.M. Biju joined the Department of Chemistry, NIT Tiruchirappalli as an Assistant Professor on 07-04-2006 and is currently working as an Associate Professor and also holds the additional responsibility of Associate Dean (Faculty Welfare in CPDA) at NIT Tiruchirappalli. He acquired his Ph.D. degree from CSIR- National Institute for Interdisciplinary Science & Technology (NIIST), India under Kerala University from the guidance of Dr. T. Prasad Rao. Afterwards, he worked as a Research Associate in NIIST (2005-2006). His fields of interest include: Electrochemical sensors, Ionic liquids, Ion/molecular imprinting Technology, Solid-phase extraction and Synthesis of novel sorbents for environmentally hazardous materials.

1. Name: **Dr. V. M. BIJU**
2. Designation: Associate Professor
3. Office Address: Associate Professor,
   Department of Chemistry,
   NIT Tiruchirappalli-620 015
4. Telephone (Direct) (Optional):
   Telephone : +91-431-2503638
   Extn (Optional):
   Mobile (Optional): +91-9443843076
5. Email (Primary): vmbiju@nitt.edu
   Email (Secondary): bijuvm12@gmail.com
6. Field(s) of Specialization: Analytical Chemistry

7. Employment Profile

| Job Title | Employer | From | To |
|---|---|---|---|
| Associate Professor | NIT Tiruchirappalli | March 2018 | Till date |
| Assistant Professor | NIT Tiruchirappalli | April 2006 | March 2018 |
| Project Associate | NIIST, CSIR, Thiruvananthapuram | August 2005 | April 2006 |

8. Academic Qualifications (From Highest Degree to High School):

| E xamination | Board / University | Year | Division/ Grade | Subjects |
|---|---|---|---|---|
| Ph.D. | University of Kerala | 2006 | | Chemistry |
| M.Sc. (Analytical Chemistry) | University of Kerala | 1997 | First Class | Analytical Chemistry |
| B.Ed. (Physical Science) | University of Kerala | 1995 | Second Class | Physical Science |
| B.Sc. (Chemistry) | University of Kerala | 1994 | First Class | Chemistry, Physics, Mathematics |
| AISSCE | CBSE | 1991 | First Class | English, Mathematics, Physics, Chemistry, Biology |
| AISSE | CBSE | 1989 | Second Class | English, Hindi, Mathematics, Social Science, Science |

9. Academic/Administrative Responsibilities within the University

| Position | Faculty/Department/Centre/ Institution | From | To |
|---|---|---|---|
| Associate Dean (Faculty Welfare) | NITT | 2020 | Till Date |
| Member, Convocation Committee | NITT | 2022 | |
| Member, Safety and Security Advisory Committee | NITT | 2020 | Till Date |
| Faculty Advisor | NITT | 2019 | 2021 |
| NCC Caretaker | NITT | 2016 | 2017 |
| Sports Convener | NITT | 2009 | 2011 |
| NSS Programme officer | NITT | 2007 | 2009 |

10. Academic/Administrative Responsibilities outside the University

| Position | Institution | From | To |
|---|---|---|---|
| Member, Board of Studies | Mar Ivanios College (Deemed University), Trivandrum | 2019 | Till Date |
| Subject Expert for Faculty Interview committee | Mar Ivanios College (Deemed University), Trivandrum | 2019 | Till Date |
| Ph.D. thesis evaluator | 1. M.S. University, Tirunelveli<br>2. CUSAT, Cochin<br>3. Kerala University, Trivandrum<br>4. NIIST(CSIR), Trivandrum | 2019 | Till Date |
| Ph.D. viva-voce examiner | 1. M.S. University<br>2. Kerala University<br>3. CECRI(CSIR), Karaikudi | | |
| Doctoral Committee members | 1. NICHE, Kumaracoil, Kanyakumari.<br>2. Vels University, Chennai<br>3. NIIST (CSIR) Trivandrum | | |
| M.Phil. thesis evaluator | 1. Kerala University, Trivandrum | | |

11. Awards, Associateships etc.

| Year of Award | Name of the Award | Awarding Organization |
|---|---|---|
| 2020 | Best Performer Award | NITT |
| 2019 | Faculty Award (Consultancy Project) | NITT |

12. Fellowships

| Year of Award | Name of the Fellowship | Awarding Organization | From (Month/Year) | To (Month/Year) |
|---|---|---|---|---|
| 2002 | Senior Research Fellowship | CSIR, MHRD | January/2002 | January/2005 |

13. Details of Academic Work

(i) Curriculum Development

(a) Establishment of Analytical Chemistry Lab (CH 612)

(ii) Courses taught at Postgraduate and Undergraduate levels

Presently I have been teaching CHIR11 and CHIR12 (Chemistry) I B.Tech. course first year students.

For M.Sc. Chemistry, I am handling the subject:

1. Instrumental Methods of Chemical Analysis (CH 607):
   Objectives: To introduce the basic principles, working and applications of Instrumental techniques like Chromatrography, Electrophoresis, Potentiometry, spectroelectrochemisty and thermal methods to the I year M.Sc. students.

2. Polymer Chemistry (CH 620):
   Objectives: To introduce the basic concept of macromolecules, polymerization processes, polymer stereochemistry, theory of polymer solutions and speciality polymers to the I year M.Sc. students.

3. Analytical Chemistry Lab (CH 612)

(iii) Projects guided at Postgraduate level

1. M.P. Shanmuga Priya in the project entitled “Functionalization of “Upper Rim” of Calix[4]arenes by Baylis-Hillman Reaction” (2007).

2. R. Kalaivani in the project entitled “Genetic Engineering of the metal ion binding site in the Dinuclear $Cu_A$ Centre of Cytochrome C oxidase” (2007).

3. R. Gayathri in the project entitled “Comparative corrosion study on different grades on Stainless steel as per ASTM methods and corrosion behaviour of different grades of stainless steel in different combinations of food acids” (2008).

4. K. Indira in the project entitled “Synthesis and characterization of condensed phenolic resin for the quantification of transition metals” (2008).

5. P. Kamachiyappan in the project entitled “Synthesis and characterization of Co-ordination polymer for preconcentration of trace metals” (2009).

6. G. Sundarapandiyan in the project entitled “Synthesis and characterization of 8-Hydroxy-5-Azo Quinoline phenol formaldehyde resin and its Cu(II) complex” (2009).

7. S. Priyadarshini in the project entitled “Solid phase extraction of Mn(II), Co(II), Cu(II) & Cd(II) using 5,7-Dichloroquinoline-8-ol modified naphthalene” (2010).

8. V. Ramkumar in the project entitled “FAAS determination of Cu(II), Co(II), Mn(II) and Cd(II) using preconcentration of Polyethylene glycol modified alumina” (2010).

9. R. Ramesh kumar in the project entitled “Development of $H_2O_2$ sensor using Prussian Blue modified electrode” (2011).

10. P. Chitra in the project entitled “FAAS determination of Cd(II) using preconcentration of dithizone modified naphthalene”(2011).

11. B. Vinayagam in the project entitled “Fluoresence determination of Europium in high purity Yttrium and Gadolinium oxide.”(2011).

12. R.S. Aparna in the project entitled “Development of Hydrogel based ion imprinted polymer (IIP) for Cadmium ion”(2012).

13. Rambabu Gutru in the project entitled “Sensitive detection of L-Tryptophan Using CoMnHCF-Graphene oxide modified Glassy carbon electrode”(2012).

14. R. Devi in the project entitled “Solid phase extraction preconcentration of Mn(II), Cu(II) & Cd(II) using 5,7-Dibromo Quiloline-8-ol modified Napthalene”(2012).

15. K. Sindhuja in the project entitled "Copper Hexacyanoferrate (CuHCF) Modified Graphite Wax Electrode towards Hydroxylamine Detection" (2013).

16. M. Silambarasan in the project entitled "Synthesis and characterization of Phenol-Formaldehyde resin and Preconcentration of copper ions from real samples using functionalized sorbents" (2014).

17. R. Vinothavarthini in the project entitled "Detection of hydrazine using MWCNT-Poly(Methylene Blue) modified platinum electrode" (2014).

18. S. Jambu in the project entitled "Molecularly Imprinted polymer (MIP) based electrochemical sensor for salbutamol" (2014).

19. R. Dheepika in the project entitled "Molecularly Imprinted polymer (MIP) based electrochemical sensor for Dopamine" (2015).

20. P. Giridharan in the project entitled “Ionic liquid extraction of Zinc (II) ions from natural samples using synthesised room temperature ionic liquid” (2015).

21. R. Sakthivel in the project entitled “Cloud point extraction of Chromium (III) ions from Environmental samples” (2015).

22. Anju Shaji in the project entitled “Synthesis and Characterization of Azo dye and its Properties as an Electrochemical Sensor” (2015).

23. P.S. Sreejith in the project entitled “Synthesis & Characterization of Novel Phenol-Formaldehyde resin for the preconcentration of Cadmium ions and its determination using FAAS” (2016).

24. P. Febina in the project entitled “Synthesis & Application of 1-aroyl-3-phenyl thioureas for extraction of Cadmium ions using spectroscopic studies” (2016).

25. S. Shalini in the project entitled “Synthesis & Characterization of Acyl/Aroyl thiourea modified PAMAM dendrimers and as heavy metal ion extractant” (2016).

26. M.S. Suryamol in the project entitled “Synthesis of RTIL, N-methyl-N,N-trioctyl-1-ammonium-5.7-diiodoqunolin-8-olate followed by cloud point extraction of Cr(III) ions using synthesized ionic liquid” (2016).

27. P.S. Akshana in the project entitled “Synthesis of Quinolinyl thiourea derivatives and determination of cations and anions at trace level” (2017).

28. Ajay Ajith in the project entitled “Differential Pulse Voltammetric method for the detection of Phenacetin using Molecularly Imprinted Electrochemical Sensor” (2017).

29. P.M. Meenu in the project entitled “UV Spectrophotometric assay of Omeprazole and its application to content uniformity testing and Stability studies” (2017).

30. Alen Sam Thomas in the project entitled “UV Spectrophotometric Assay of Ondansetron” (2017).

31. Swetha Mohan in the project entitled “Synthesis, Characterization and Fluorescence study of 2-methyl-8-quinolinol-5-sulphonic acid and its Al(III) and Zn(II) complexes” (2017).

32. Aiswarya V.V. in the project entitled “Electrochemical Detection of Doxepin using 4-

(3-Aroylthioureido) Benzoic Acid derivatives" (2018).

33. Kavya P in the project entitled "Development of Spectrofluorimetric method for the determination of Ondansetron Hydrochloride in its Pharmaceutical formulations" (2018).

34. Rasin P.V. in the project entitled "Synthesis of silver nanoparticles and its investigation on Electrochemical properties" (2018).

35. Thanasekar C. in the project entitled "Synthesis, Characterization and Photo physical studies of β – diketo compound"(2019).

36. Ardra Ashok K. P. in the project entitled "Spectrofluorimetric method for the determination of Salbutamol in its Pharmaceutical formulations" (2019).

37. Thangapandiyan G. in the project entitled "Naphthalene based Acylthioureas: Synthesis, Structure and Spectral properties" (2019).

38. Ajay P. in the project entitled "Organization of Inorganic Nano-materials with recyclable supramolecular matrices" (2020).

39. Vidhya V. in the project entitled "$CuCeO_2$ anchored N-doped Reduced Graphene oxide for sensor application towards Nitroaromatics" (2020).

40. Anshika Verma in the project entitled "Metal free selective diarylation of Isatin" (2021).

41. Priya Garg in the project entitled "Multifunctional copper-based materials for overall water splitting applications" (2021).

42. Anjana S in the project entitled "Synthesis and Characterization of Metal-β-diketonate Organosilicon Complexes" (2022).

43. Sandhya K in the project entitled "Synthesis, Characterization & Ceramic conversion of a Photocurable Preceramic polymer" (2022).

(iv) Other contribution(s)

14. Details of Major R&D Projects

| Title of Project | Funding Agency | Duration | | Status |
|---|---|---|---|---|
| | | From | To | Ongoing/ Completed |
| Synthesis and Characterization of novel functionalized solid sorbents for online flow injection preconcentrative | CSIR | 21-04-2008 | 21-03-2011 | Completed |

| | | | | |
|---|---|---|---|---|
| separation and determination of inorganics by Atomic/Molecular spectrometric techniques | | | | |
| Establishment of Nano/cost effective insulation coating for high temperature application to reduce insulation thickness | BHEL | 04-10-2018 | 03-05-2020 | Completed |

15. Number of PhDs guided

| Name of the PhD Scholar | Title of PhD Thesis | Role(Supervisor/ Co-Supervisor) | Year of Award |
|---|---|---|---|
| E. Linga Reddy | Decomposition of hydrogen sulfide to hydrogen and sulphur assisted by non-thermal plasma dielectric barrier discharge reactor | Co-Supervisor | 2012 |
| D. Mannivannan | Preconcentration of trace heavy metal ions from real samples using functionalized sorbents | Supervisor | 2013 |
| Vinu Mohan A. M. | Design and development of electrochemical Biosensors using modified electrodes | Supervisor | 2014 |
| D. Karunanithi | Method development and validation of melatonin and sialic acid in cow, human and marketed milk products | Supervisor | 2015 |
| Aswini K. K. | Design & Development of Electrochemical Sensors using Molecularly Imprinted Polymers | Supervisor | 2016 |
| Aswathi. M | Synergistic enhancement effect of room temperature ionic liquid with cloud point extraction for the quantification of transition metal ions | Supervisor | 2019 |
| Vipin Vijay V | Active Filler Controlled Preceramic Polymer Pyrolysis: Advanced Ceramics & Composites | Supervisor | 2019 |

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|---|---|---|---|
| Padmapriya M | Synthesis, characterization and adsorption performance of mesoporous geopolymer for effective removal of methylene blue from synthetic wastewater | Supervisor | 2019 |
| S. Naga Gayathri | Development and Validation of Drugs by Spectrofluorimetry Using Different Organised Media | Supervisor | 2020 |
| Akhil Kumar M M | Design and development of chitosan functionalized 8-hydroxy quinoline based thin film for fluorescence sensor application | Supervisor | 2022 |

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

| Date (s) | Title of Activity | Level of Event (International/ National/ Local) | Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other) | Event Organized by | Venue |
|---|---|---|---|---|---|
| 14th April, 2007 | Workshop on Bioseparation Techniques | | Participant | TEQIP community Services | Department of Chemical Engineering, NIT,Tiruchirappalli, India |
| 08-11, January, 2017 | 3rd International Conference on Ionic Liquids in Separation and purification Technology (ILSEPT 2017) | International | Poster Presenter | Elsevier, USA | Kuala Lumpur, Malaysia |
| 28, June 2009 to 03, July 2009 | International Conference on Materials for Advanced Technologies (ICMAT2009) | International | Poster Presenter | Materials Research Society (MRS) | National University of Singapore, Singapore |

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

| Title of Activity | Level of Event (International/ National/ Local) | Date (s) | Role | Venue |
|---|---|---|---|---|
| International Conference on Nanomaterial & its Applications (ICNA-2007) | International | 4-6 February 2007 | Member of Organizing Committee | NIT, Tiruchirappalli |
| Training programme for National Eligibility Test (NET) | National | 26 – 27, April 2007 | Coordinator | NIT, Tiruchirappalli |
| Workshop on catalysts in environmental applications (WCEA-2007) | National | 2-3, December 2007 | Coordinator | NIT, Tiruchirappalli |
| National Seminar on Sensor & its Applications (NSSA-2007) | National | 7 –8, December 2007 | Organizing Secretary | NIT, Tiruchirappalli |
| Workshop on Electrochemistry & corrosion | National | 3rd September 2008 | Coordinator | NIT, Tiruchirappalli |
| National Level Students' Symposium, HORIZON-2008 | National | 3 – 4, October 2008 | Convener | NIT, Tiruchirappalli |
| Short term course on CSIR/UGC-JRF Exam in Chemical Sciences | National | 30-08-2012 to 03-09-2012 | Coordinator | NIT, Tiruchirappalli |
| Workshop on Applications of Spectroscopy in Inorganic, Organic & Physical chemistry (WASIOP) | National | 29-03-2013 to 30-03-2013 | Coordinator | NIT, Tiruchirappalli |
| Short term course on Innovative Methods in Chemical Sciences | National | 05-05-2014 to 09-05-2014 | Coordinator | NIT, Tiruchirappalli |
| Short term course on Training programme for CSIR/UGC-JRF exam in Chemical Sciences | National | 01-09-2017 to 05-09-2017 | Coordinator | NIT, Tiruchirappalli |
| National Level Students' Symposium, HORIZON-2018 | National | 28-29, September 2018 | Convener | NIT, Tiruchirappalli |

18. Invited Talks delivered

| Topic | Date | Inviting Organization |
|---|---|---|
| Lanthanides And Their Applications | 12th July 2006 | Post Graduate Department of Chemistry, Bishop Moore College, Mavelikara, Kerala |
| Analytical Chemistry | 26 – 27, April 2007 | NIT, Tiruchirappalli, |
| Recent Developments In Analytical Research | 24th January 2008 | Shriram Institute for Industrial Research, Bangalore |
| Recent Techniques In Analytical Research And Development | 27th September 2008 | National Institute of Technology (NIT), Tiruchirappalli |
| Applications Of Coordination Complexes | 3th January 2009 | Mallappally Institute for Academic Excellence, Mallappally, Kerala |
| Corrosion Engineering | 23-25, February, 2012 | Govt. Engineering College, Wayanad |
| High Pressure Liquid Chromatography- Instrumentation And Applications | 15th March, 2013 | National College (Autonomous), Tiruchirappalli |
| FLOW INJECTION ANALYSIS - Challenges And Opportunities | 21-22, November, 2013 | Govt. College, Kattappana, Kerala |
| Design And Development Of Electrochemical Sensors Using Gold Nanoparticles And Graphene Modified Glassy Carbon Electrodes | 28th, November, 2014 | Govt. College, Kattappana, Kerala |
| Corrosion Engineering | 18-20, February, 2015 | Govt. Engineering College, Wayanad |
| Atomic Absorption Spectroscopy & Its Applications | 2-3, March 2015 | University College, Thiruvananthapuram |
| Green Chemistry & Its Applications In Day-To-Day Life | 6, October 2015 | Department of Chemistry, Shanmuga Industries Arts & Science College, Tiruvannamalai |
| Atomic Absorption Spectroscopy & Its Applications In Analytical Chemistry | 14, October 2015 | Department of Chemistry, Jamal Mohammed College, Trichy |

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|---|---|---|
| Atomic & Molecular Spectroscopies And Its Applications | 10, March 2016 | Mar Ivanios college (Autonomous), Thiruvananthapuram |
| Solid Phase Extraction-Ion Imprinted polymers | 24-26, November, 2016 | Post Graduate Department of Polymer Chemistry, Govt. College, Attingal, Kerala |
| Solid Phase Extraction-Ion Imprinted polymers | 08-09, December, 2016 | Post Graduate Department of Polymer Chemistry, Govt. College, Kasaragod, |
| Molecularly Imprinted polymers as Biosensors | 15-17, February, 2017 | Post Graduate & Research Department of Chemistry, Bishop Moore College, Mavelikara, Kerala |
| Design & Development of Electrochemical sensors using Molecularly Imprinted Polymers | 01-03, November, 2017 | Post Graduate Department of Polymer Chemistry, Govt. College, Attingal |
| Fabrication of Electrochemical sensors using Screen Printed Electrodes | 10-13, October, 2018 | Indian Institute of Space Science and Technology (IIST), Trivandrum, Kerala |
| Analytical Separation Techniques | 1-2, August, 2019 | Department of Chemistry & Research Centre, Nesamony Memorial Christian College, Marthandam |
| Fabrication of Electrochemical Sensors using Screen Printed Electrodes | 24$^{th}$, February, 2020 | Department of Physics, Noorul Islam Centre for Higher education, Kumarcoil, Thuckalay, Kanyakumari District, Tamil Nadu |
| Fabrication of Electrochemical Sensors using modified Electrodes | 13-19, May, 2020 | Department of Physics, Bishop Moore College, Mavelikara, Kerala |
| Analytical Separation techniques | 28, May 2020 | PG and Research Department of Chemistry, Jamal Mohamed College |
| Design and Development of Electrochemical Sensors | 22-28, June, 2020 | Department of Chemistry, Saranathan College of Engineering, Tiruchirappalli, Tamil Nadu |
| Design and Development of Electrochemical Sensors | 17, August, 2020 | UGC-Human Resource Development Centre (HRDC), Kannur University |

19. Membership of Learned Societies

| Type of Membership (Ordinary Member/ Honorary Member / Life Member ) | Organization | Membership No. with date |
|---|---|---|
| Life Member | Indian society for Electroanalytical Chemistry (ISEAC) | |
| Life Member | Electrochemical Society of India (ECSI) | |

20. Academic Foreign Visits

| Country | Duration of Visit | Programme |
|---|---|---|
| South Korea | One Month | Technical Education for Quality Improvement Programme (TEQIP) |
| Singapore | One Week | International Conference on Materials for Advanced Technologies (ICMAT2009) |
| Malaysia | Four Days | 3rd International Conference on Ionic Liquids in Separation and purification Technology (ILSEPT 2017) |

21. Publications

(A) Refereed Research Journals:

| Author(s) | Title of Paper | Journal | Volume (No.) | Page numbers | Year | Impact Factor of the Journal (Optional) |
|---|---|---|---|---|---|---|
| A. Kalaiyarasi, N. S. P. Bhuvanesh, R. Karvembu & V. M. Biju | Electrochemical sensing of doxepin using acylthiourea-modified glassy carbon electrode | *Phosphorus, Sulfur, and Silicon and the Related Elements* | | | 2021 | |
| S. Naga Gayatri and V. M. Biju | A Confined Organised Media Enhanced Determination of Etodolac by Fluorimetry: Application to Spiked Human Urine and Pharmaceuticals | *Indian Drugs* | | | | |
| Balamurugan Arumugam, | Electrochemical Reduction of | *Microchemical Journal* | 159 | 105565 | 2020 | |

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|---|---|---|---|---|---|---|
| Balamurugan Muthukutty, Bhuvaneswari Thasma Subramanian, Valasala Madhavan Nair Biju, Sayee Kannan Ramaraj | Procardia Drug with aid of Silver Phosphate/Strontium Phosphate Nanoparticles (AgP/SrP NPs) modified Glassy Carbon Electrode | | | | | |
| Akhil kumar M.M. and V.M. Biju | A quick responsive Chitosan-Oxine based thin film to recognize and remove $Zn^{2+}$ ion from potable water | *Chemistry Select* | 5 | 11096–11105 | 2020 | |
| Vipin Vijay V, P.P. Shyin, V.M. Biju, Renjith Devasia | Fabrication and property evaluation of titanium silicide active filler incorporated ceramic matrix composite | *Ceramics International* | 46 | 21489–21495 | 2020 | |
| Akhil kumar M.M. and V.M. Biju | A cost-effective chitosan-oxine based thin film volatile acid vapour sensing application | *New Journal of Chemistry* | 44 | 8044-8054 | 2020 | |
| S. Naga Gayatri and V. M. Biju | A Micelle Enhanced Spectrofluorimetric Determination of Melphalan: Application to Content Uniformity Testing and Human Plasma | *Tenside Surfactants & Detergents* | 57 | 40-44 | 2020 | |
| M. Padmapriya, S.T. Ramesh and V.M. Biju | Characterization, morphology and stability assessment of low-cost industrial by-product as an adsorbent for the removal of methylene blue from aqueous solution | *Separation Science and Technology* | 55 | 471-486 | 2020 | |
| S. Naga Gayatri, V. M. Biju and A.M. Starvin | Determination of Ondansetron by Spectrofluorimetry: Application to Forced Degradation | *Journal of Fluorescence* | 29 | 203-209 | 2019 | |

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|---|---|---|---|---|---|---|
| | Study, Pharmaceuticals and Human Plasma | | | | | |
| A. Kalaiyarasi, J. Haribabu, D.Gayatri, K.Gomathi, N.S.P, Bhuvanesh, R. Karvembu, V.M.Biju | Chemosensing, molecular docking and antioxidant studies of 8-aminoquinoline appended acylthiourea derivatives | *Journal of Molecular Structure* | *11*85 | 450-460 | 2019 | |
| M. Padmapriya, S.T. Ramesh and V.M. Biju | Seawater based mesoporous geopolymer as a sorbent for the removal and recovery of methylene blue from wastewater | *Desalination and Water Treatment* | 138 | 313-325 | 2019 | |
| S. Naga Gayatri, V.M.Biju, Meenu P M | Stability Indicating UV Spectrophotometric Method for Estimation of Omeprazole and its Application to Content Uniformity Testing | International Journal of Pharmaceutical Quality Assurance and Pharmaceutical analysis | 9 | 158-165 | 2018 | |
| M Aswathi, M S Suryamol and V M Biju | Cloud point extraction of Cr(III) and Cr(VI) ions using novel room temperature ionic liquid N-methyl-N,N-trioctyl-1-ammonium-5,7-diiodoquinoline-8-olate followed by FAAS quantification | *Indian Journal of Chemistry* | 57A | 1448-1453 | 2018 | |
| S. Naga Gayatri and V. M. Biju | A micelle enhanced spectrofluorimetric determination of pirfenidone: Application to content uniformity testing and human urine | *Journal of Fluorescence* | 28 | 951-957 | 2018 | |

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|---|---|---|---|---|---|---|
| Vinu Mohan A. M., Aswini K.K., and V. M. Biju | Selective electrochemical detection of dopamine based on molecularly imprinted poly(5-amino 8-hydroxy quinoline) immobilized reduced graphene oxide | *Journal of Materials Science* | 53 | 10627–10639 | 2018 | |
| M. Aswathi, Suja Mathai, Suju C. Joseph, and V. M. Biju | Room temperature ionic liquid, cetyl pyridinium naphthenate, supported cloud point extractive separation and ultra-trace determination of copper in blood and environmental samples | *Separation Science & Technology* | 52 | 2540-2546 | 2017 | |
| V. M. Biju, S. Naga Gayatri and Alen Sam Thomas | A UV Spectrophotometric assay method for available brands of Ondansetron hydrochloride | *World Journal of Pharmacy and Pharmaceutical Sciences* | 06 | 820-827 | 2017 | |
| Vipin Vijay, V M Biju, Renjith Devasia | Active Filler Controlled Polymer Pyrolysis – A Promising Route for the Fabrication of Advanced Ceramics | *Ceramics International* | 42 | 15592 - 15596 | 2016 | |
| S. Naga Gayatri and V.M.Biju | Assay of Pirfenidone by UV Spectrophotometry | *Journal of Chemical and Pharmaceutical Research* | 08 | 36-41 | 2016 | |
| S. Naga Gayatri and V.M.Biju | A UV Spectrophotometric Assay of sustained Release Brands of Tramadol Hydrochloride | *World Journal of Pharmaceutical and Life Sciences* | 02 | 323-329 | 2016 | |
| Vinu Mohan A. M., Aswini K.K., and V. M. Biju | Electrochemical sensing of hydroxylamine using a wax impregnated | *Micro Chimica Acta* | 183 | 2013–2021 | 2016 | |

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|---|---|---|---|---|---|---|
| | graphite electrode modified with a nanocomposite consisting of ferric oxide and copper hexacyanoferrate | | | | | |
| Aswini K. K., Vinu Mohan A. M. and V. M. Biju | Molecularly imprinted poly(4-amino-5-hydroxy-2,7-naphthalene disulfonic acid) modified glassy carbon electrode as an electrochemical theophylline sensor | *Materials Science & Engineering C* | 65 | 116-125 | 2016 | |
| V.Vijay, S.Bhuvaneswari, V.M.Biju and R. Devasia | Influence of Titanium silicide Active filler on the Microstructure Evolution of Borosiloxane-Derived Si-B-O-C ceramics | *Journal of Ceramic Science & Technology* | 07[01] | 97-106 | 2016 | |
| D.Manivannan and V.M.Biju | Synthesis and chelation properties of a new polymeric ligand derived from 1-amino-2-naphthol-4-sulfonicacid | *Journal of AOAC international* | 98 | 188-191 | 2015 | |
| Vinu Mohan A. M., Rambabu Gutru, Aswini K.K., and V. M. Biju | Electrocatalytic behaviour of hybrid cobalt manganese hexacyanoferrate film on glassy carbon electrode, | *Thin solid films* | 565 | 207-214 | 2014 | |
| D.Karunanithi, A.Radhakrishna, K.P. Sivaraman & V.M.Biju | Quantitative determination of melatonin in milk by LC-MS/MS | *Journal of Food Science & Technology* | 51 | 805-812 | 2014 | |
| Vinu Mohan A. M., Aswini K. K., and *V. M. Biju* | Electrochemical co-deposition of gold particle-poly(2-(2-pyridyl) benzimidazole) hybrid film on glassy carbon electrode for | *Sensor and Actuators B: chemical* | 196 | 406-412 | 2014 | |

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|---|---|---|---|---|---|---|
| | the electrocatalytic oxidation of nitric oxide | | | | | |
| Aswini K. K., Vinu Mohan A. M. and V. M. Biju | Molecularly imprinted polymer based electrochemical detection of L-cysteine at carbon paste electrode | *Materials Science & Engineering C* | 37 | 321-326 | 2014 | |
| E. Linga Reddy, J. Karuppiah, V.M. Biju, Ch.Subrahmanyam | Catalytic packed bed non-thermal plasma reactor for the extraction of hydrogen from hydrogen sulfide | *International Journal of Energy Research* | 37 | 1280-1286 | 2014 | |
| D.Karunanithi, A.Radhakrishna, V.M.Biju | Quantitative determination of Sialic acid in Indian milk and milk products | *International Journal of Applied Biology and pharmaceutical technology* | 4 | 318-323 | 2013 | |
| Vinu Mohan A. M., Aswini K. K., Maria Starvin A and V. M. Biju | Amperometric detection of glucose using Prussian blue – graphene oxide modified platinum electrode | *Analytical Methods* | 5 | 1764-1770 | 2013 | |
| E. Linga Reddy, V.M. Biju, Ch.Subrahmanyam | Hydrogen production from hydrogen sulfide in a packed bed DBD reactor | *International Journal of Hydrogen Energy* | 3 | 8217-8222 | 2012 | |
| E. Linga Reddy, V.M. Biju, Ch.Subrahmanyam | Production of hydrogen and sulfur from hydrogen sulfide assisted by nonthermal plasma | *Applied Energy* | 37 | 87-92 | 2012 | |
| D.Karunanithi, A.Radhakrishna, V.M.Biju | Quantification of N-acetylneuraminic acid( Neu5Ac) in human milk using N-glycolylneuraminic acid as internal standard by LC-MS/MS | *International Journal of Pharma and Bio Sciences* | 3 | 299-308 | 2012 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| E. Linga Reddy, V.M Biju and Ch. Subrahmanyam | Production of hydrogen from hydrogen sulfide assisted by dielectric discharge | *International Journal of Hydrogen Energy* | 37 | 2204-2209 | 2012 | |
| E. Lingareddy, V.M. Biju and Ch.Subrahmanyam | Non-thermal plasma assisted direct decomposition of $H_2S$ into $H_2$ and S | *International Journal Chemical and Environmental Engineering* | 2 | 87-90 | 2011 | |
| D.Manivannan and V.M.Biju | Determination of toxic heavy metals in sea water by FAAS after preconcentration with a novel chelating resin | *Water Science and Technology* | 64 | 803-808 | 2011 | |
| D. Manivannan, Maria Starvin and V. M. Biju | Preconcentration of Cu (II) from seawater using a novel and stable Phenol-Formaldehyde resin | *Water Science and Technology* | 61 | 1853-1863 | 2010 | |
| V.M. Biju and T.Prasada Rao | FAAS Determination of Selected Rare Earth Elements Coupled with Multielement Solid Phase Extractive Preconcentration | *Chemia. Analit.* (Warsaw) | 50 | 935-944 | 2005 | |
| R. Kala, V.M. Biju and T. Prasada Rao | Synthesis, characterization and analytical applications of erbium(III) ion imprinted polymer particles prepared via γ-irradiation with different functional and crosslinking monomers | *Anal. Chim. Acta* | 549 | 51-58 | 2005 | |
| A.M. Starvin, V.M. Biju and T. Prasada Rao | On-line solid phase extraction preconcentration of Ultra trace amounts of cobalt and nickel in soil and human hair samples for | *Atomic Spectroscopy* | 25 | 238-244 | 2004 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | determination by flow injection flame AAS | | | | | |
| P. Gopikrishna, K.S. Rao, V.M. Biju, T. Prasada Rao and G.R.K. Naidu | Simultaneous preconcentration of Cu, Cd and Pb from soil samples by soil samples by solid phase extraction and their determination by AAS | *Chemia. Analit.* (Warsaw) | 49 | 383-393 | 2004 | |
| C.R. Preetha, V.M. Biju and T. Prasada Rao | On-line solid phase extraction preconcentration of ultra trace amounts of zinc in fractionated soil samples for the determination by flow injection flameAAS | *Atomic Spectroscopy* | 24 | 118-124 | 2003 | |
| B. Vijayalakshmy, V.M. Biju and T. Prasada Rao | Spectrophotometric determination of Yttrium in Y-Al alloys with 5,7-diiodoquinoline-8-ol and Rhodamine 6G | *Indian J. Chem. Tech.* | 10 | 466-469 | 2003 | |
| V.M. Biju, J. Mary Gladis and T. Prasada Rao | Effect of γ - irradiation of ion imprinted polymer (IIP) particles for the preconcentrative separation of dysprosium from other selected lanthanides | *Talanta* | 20 | 747 | 2003 | |
| V.M. Biju, J. Mary Gladis and T. Prasada Rao | Ion imprinted polymer (IIP) particles : Synthesis, Characterization and dysprosium ion uptake properties suitable for analytical applications | *Anal. Chim. Acta* | 478 | 43 | 2003 | |
| J. Mary Gladis, V.M. Biju and T. Prasada Rao | On-line solid phase extraction of metal 5,7- | *Atomic Spectroscopy* | 23 | 143 | 2002 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | dichloroquinoline-8-ol complex onto $C_{18}$ bonded silica gel and Flame AAS determination of copper in sea water samples | | | | | |
| B. Vijayalakshmy; V.M. Biju and T. Prasada Rao | Selective Spectrophotometric determination of Cerium (IV) | *Indian Journal of Chemistry, Section A* | 40A | 1365 | 2001 | |
| Sajitha Nair, V.M. Biju, B. Vijayalakshmy and T. Prasada Rao | Spectrophotometric determination of Zinc in soils and sediments with 5,7-diiodo-8-hydroxy quinoline and Rhodamine 6G | *Chemia Analit*., | 46 | 589 | 2001 | |
| V.M. Biju and T. Prasada Rao | Spectrofluorimetric determination of Erbium in Sea water with 5,7-diiodo oxine and Rhodamine 6G | *Analytical Sciences* | 17 | 1343 | 2001 | |
| V.M. Biju, N.M Sita and T. Prasada Rao | Spectrofluorimetric determination of ultra trace amounts of Lutetium in Lanthanum, Praseodymium and Dysprosium oxides | *Analytical Letters* | 34 | 211 | 2001 | |
| V.M. Biju, M.L.P. Reddy and T.Prasada Rao & Geeta Kannan, A.K. Mishra and N. Balasubramanian | Luminescence determination of Europium in high purity Yttrium and Gadolinium oxides | *Analytical Letters* | 33 | 2271 | 2000 | |
| T. Prasada Rao and V.M. Biju | Trace determination of Lanthanides in Metallurgical, Environmental and Geological samples | *Critical Reviews in Analytical Chemistry* | 30 | 179 | 2000 | |
| T. Prasada Rao and V.M. Biju | Ultra-trace analysis of individual Rare earth elements in natural water samples | *Reviews in Analytical Chemistry*, 21 (2002) 233. | 21 | 233 | 2002 | |
| T. Prasada Rao, V.M. Biju and J. Mary Gladis | Overview of flow injection analysis of inorganics in India | *Pollution Research* | 22 | 559 | 2003 | |

(B) Conferences/Workshops/Symposia Proceedings

| Author(s) | Title of Abstract/ Paper | Title of the Proceedings | Page numbers | Conference Theme | Venue | Year |
|---|---|---|---|---|---|---|
| D.Karunanithi, A.Radhakrishna and V.M.Biju | Determination of sialic acid in milk and milk products by LC-MS/MS | | 157-159 | International Conference proceeding on biologically active molecule | | 2012 |
| | Preconcentration of Divalent Metal Ions Using 5-[(4-Hydroxyphenyl) Diazenyl] Quinolin-8-ol-Formaldehyde | IOSR Journal Of Pharmacy | 24-31 | Emerging Trends & Future Challenges in Chemical Sciences | | 2018 |
| Vipin Vijay, Jayalatha T, V. M. Biju and Renjith Devasia | Effect of Titanium Silicide Active Filler on the Ceramic Conversion of Polycarbosilane | Materials Today: Proceedings | 25085–25091 | International Conference on Advances in Materials and Manufacturing Applications (IConAMMA_2017) | | 2018 |
| D Manivannan and V M Biju | Determination of Cu(II), Co(II), Mn(II) and Cd(II) ions at trace levels by FAAS after preconcentration using modified Alumina-Polyethylene glycol | International Journal of Pharmacy and Biological Sciences | 71-83 | Emerging Trends and Future Challenges In Chemical Sciences-Chem Fest-18 | | |
| M. Padmapriya S.T. Ramesh and V.M. Biju | Synthesis of seawater based geopolymer: Characterization and adsorption capacity of methylene blue from wastewater | Materials Today: Proceedings | 1770-1776 | International Workshop-cum-Conference on Smart Materials and their Applications in Recent Technologies (SMART 2020) | | 2022 |

(C) Books & Monographs

| Author(s) | Title of Book/Monograph | Name of Publishers | Year of Publication | ISSN/ISBN Number |
|---|---|---|---|---|
| T Prasad Rao and V M Biju | Encyclopedia of Analytical Science | Elsevier, oxford London. | 2005 | second edition, Vol.8, pp. 358-365. |