Dr. Rashmi Madhuri

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List of Publications in International Journals

1) Imprinted Polymer-Carbon Consolidated Composite Fiber Sensor for Substrate-Selective Electrochemical Sensing of Folic Acid; Bhim Bali Prasad, **Rashmi Madhuri**, Mahavir Prasad Tiwari, Piyush Sindhu Sharma, **Biosensors and Bioelectronics 25 (2010) 2140–2148 (Impact Factor=6.451).**

2) Electrochemical sensor for folic acid based on a hyperbranched molecularly imprinted polymerimmobilized sol-gel-modified pencil graphite electrode; Bhim Bali Prasad, **Rashmi Madhuri**, Mahavir Prasad Tiwari, Piyush Sindhu Sharma, **Sens. Actuators B: Chem. 146 (2010) 321–330 (Impact Factor=3.840).**

3) Enantioselective recognition of d- and l-tryptophan by imprinted polymer-carbon composite fiber sensor; Bhim Bali Prasad, **Rashmi Madhuri**, Mahavir Prasad Tiwari, Piyush Sindhu Sharma, **Talanta 81 (2010) 187–196 (Impact Factor=3.511).**

4) Layer-by-layer assembled molecularly imprinted polymer modified silver electrode for enantioselective detection of D- and L-thyroxine; Bhim Bali Prasad, **Rashmi Madhuri**, Mahavir Prasad Tiwari, Piyush Sindhu Sharma, **Analytica Chimica Acta 681 (2010) 16–26 (Impact Factor=4.517).**

5) Imprinting Molecular Recognition Sites on Multiwalled Carbon Nanotubes Surface for Electrochemical Detection of Insulin in Real Samples; Bhim Bali Prasad, **Rashmi Madhuri**, Mahavir Prasad Tiwari, and Piyush Sindhu Sharma, **Electrochimica Acta 55 (2010) 9146–9156 (Impact Factor=4.086).**

6) Development of a highly sensitive and selective hyphenated technique (molecularly imprinted microsolid-phase extraction fiber-molecularly imprinted polymer fiber sensor) for ultra trace analysis of folic acid; Bhim Bali Prasad, Mahavir Prasad Tiwari**, Rashmi Madhuri**, Piyush Sindhu Sharma, **Analytica Chimica Acta 662 (2010) 14–22 (Impact Factor=4.517).**

7) Enatioselective quantitative separation of D- and L-thyroxine by molecularly imprinted micro-solid phase extraction silver fiber coupled with complementary molecularly imprinted polymer-sensor; Bhim Bali Prasad, Mahavir Prasad Tiwari**, Rashmi Madhuri**, Piyush Sindhu Sharma, **Journal of Chromatography A 1217 (2010) 4255-4266 (Impact Factor=4.258).**

8) Enantioselective separation and electrochemical sensing of d- and l-tryptophan at ultra trace level using molecularly imprinted micro-solid phase extraction fiber coupled with complementary molecularly imprinted polymer-fiber sensor; Bhim Bali Prasad, Mahavir Prasad Tiwari, **Rashmi Madhuri**, Piyush Sindhu Sharma, **Journal of Chromatography B 879 (2011) 364–370 (Impact Factor=2.694).**

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9) Biomimetic piezoelectric quartz sensor for folic acid based on molecularly imprinting technology; **Rashmi Madhuri,** Mahavir Prasad Tiwari, Deepak Kumar, Aprna Mukharji, Bhim Bali Prasad, **Adv. Mat. Lett. 2011, 2(4), 264-267 (Impact Factor=1.93).**

10) Double imprinting in a single molecularly imprinted polymer format for determination of ascorbic acid and dopamine; Mahavir Prasad Tiwari**,** **Rashmi Madhuri**, Deepak Kumar, Darshika Jauhri, Bhim Bali Prasad, **Adv. Mat. Lett. 2011, 2(4), 276-280 (Impact Factor=1.93).**

11) Molecularly imprinted polymer modified electrochemical sensor for simultaneous determination of copper and zinc; Deepak Kumar**, Rashmi Madhuri,** Mahavir Prasad Tiwari, Pankhuri Sinha, Bhim Bali Prasad, **Adv. Mat. Lett. 2011, 2(4), 294-297 (Impact Factor=1.93).**

12) Sol-gel derived multiwalled carbon nanotubes ceramic electrode modified with molecularly imprinted polymer for ultra trace sensing of dopamine in real samples; Bhim Bali Prasad, Deepak Kumar**, Rashmi Madhuri,** Mahavir Prasad Tiwari, **Electrochimica Acta 56 (2011) 7202–7211 (Impact Factor=4.086).**

13) Metal ion mediated imprinting for electrochemical enantioselective sensing of l-histidine at trace level; Bhim Bali Prasad, Deepak Kumar**, Rashmi Madhuri,** Mahavir Prasad Tiwari, **Biosensors and Bioelectronics 28 (2011) 117–126 (Impact Factor=6.451).**

14) Ascorbic acid imprinted polymer-modified graphite electrode: A diagnostic sensor for hypovitaminosis C at ultra trace ascorbic acid level; Bhim Bali Prasad, Deepak Kumar**, Rashmi Madhuri,** Mahavir Prasad Tiwari, **Sens. Actuators B: Chem. 160 (2011) 418–427 (Impact Factor=3.840).**

15) Non-hydrolytic sol-gel derived imprinted polymer-multiwalled carbon nantotube composite fiber sensor for electrochemical sensing of uracil and 5-fluorouracil; Bhim Bali Prasad, Deepak Kumar**, Rashmi Madhuri,** Mahavir Prasad Tiwari, **Electrochimica Acta 71 (2012) 106-115 (Impact Factor=4.086).**

16) Multiwalled carbon nanotubes bearing 'terminal monomeric unit'for the fabrication of epinephrine imprinted polymer-based electrochemical sensor", Bhim Bali Prasad, Amrita Prasad**,** Mahavir Prasad Tiwari**, Rashmi Madhuri**, **Biosensors and Bioelectronics 45 (2013) 114–122 (Impact Factor=6.451).**

17) Gold nanoparticle mediated designing of non-hydrolytic sol–gel cross-linked metformin imprinted polymer network: A theoretical and experimental study, Ekta Roy, Santanu Patra, **Rashmi Madhuri**, Prashant K. Sharma, **Talanta 120 (2014) 198–207 (Impact Factor=3.511).**

18) A metronidazole-probe sensor based on imprinted biocompatible nanofilm for rapid and sensitive detection of anaerobic protozoan, Ekta Roy, Soham Maity, Santanu Patra, **Rashmi Madhuri,** Prashant K. Sharma, **RSC Advances, 4 (2014) 32881- 32893 (Impact Factor=3.6).**

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19) An imprinted Ag@CdS core shell nanoparticle based optical-electrochemical dual probe for trace level recognition of ferritin, Ekta Roy, Santanu Patra, **Rashmi Madhuri**, Prashant K. Sharma, **Biosensors and Bioelectronics 66 (2015) 1-10 (Impact Factor=6.541).**

20) Simultaneous determination of heavy metals in biological samples by a multiple-template imprinting technique: an electrochemical study, Ekta Roy, Santanu Patra, **Rashmi Madhuri**, Prashant K. Sharma, **RSC Advances, 2014, 4, 56690–56700 (Impact Factor=3.6).**

21) Developing electrochemical sensor for point-of-care diagnostics of oxidative stress marker using imprinted bimetallic Fe/Pd nanoparticle, Ekta Roy, Santanu Patra, **Rashmi Madhuri,** Prashant K. Sharma, **Talanta 132 (2015) 406-415.**

22) Imprinted ZnO nanostructure-based electrochemical sensing of calcitonin: A clinical marker for medullary thyroid carcinoma, Santanu Patra, Ekta Roy, **Rashmi Madhuri,** Prashant K. Sharma, **Analytica Chimica Acta 853 (2014) 271-284.**

23) Nano-iniferter based imprinted sensor for ultra trace level detection of prostate-specific antigen in both men and women, Santanu Patra, Ekta Roy, **Rashmi Madhuri**, Prashant K. Sharma, **Biosensors and Bioelectronics 63 (2015) 301-310 (Impact Factor=6.541).**

24) Development of an imprinted polymeric sensor with dual sensing property for trace level estimation of zinc and arginine, Ekta Roy, Santanu Patra, **Rashmi Madhuri**, Prashant K. Sharma, Material Science and Engineering: C (2015) **(Impact Factor = 2.736)**.

Book Chapter:

Chapter title: Combination of Molecular Imprinting and Nanotechnology: Beginning of a New Horizon, **Rashmi Madhuri,** Ekta Roy, Kritika Gupta, Prashant K. Sharma, Book title: Biosensors Nanotechnology, Editors: Tiwari A, Turner APF, Publication date: 2014, Chapter number: 12, Page numbers: 375-432., Publisher: Wiley, ISBN: 978-1-118-77351-2.

Book:

Book Title: Target-specific Material: A Dais for Micro- to Macromolecular Sensing, **Rashmi Madhuri**, ISBN: 978-3-659-39370-9, LAP LAMBERT Academic Publishing.

Patent: Applied in Indian Patent

Topic: Novel insulin monitoring device based on hyphenation between molecularly imprinted micro-solid phase extraction-silica-fiber and complementary molecularly imprinted polymer sensor techniques**;** Deepak Kumar, Bhim Bali Prasad, Mahavir Prasad Tiwari**, Rashmi Madhuri**

Application No. 592/KOL/2010

Oral/Poster presentation in National and International Conferences

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1) Oral presentation in Young Scientist's Award Programme, 2010-2011, conducted by Indian Science Congress, Kolkata (**Selected in Top Six**) on the topic Imprinting Molecular Recognition Sites on Multiwalled Carbon Nanotubes Surface for Electrochemical Detection of Insulin in Real Samples.
2) Oral presentation in National conference on polymer nanocomposite on the topic synthesis and characterization of imprinted nanocomposite and got the **best oral presentation award**.
3) Poster presentation in International conference INDIAS 2010, conducted by Nanotechnology Application Centre, Allahabad on the topic Biomimetic piezoelectric quartz sensor for folic acid based on molecularly imprinting technology (MC 01 POS 132).
4) Poster presentation in National conference on Experimental Tool for material Science Research: State of Art, 2010; conducted by Department of Physics, Mahila Maha Vidyalaya, BHU and **selected among BEST FIVE posters** on the topic An approach towards the designing of molecularly imprinted polymer via AGET-ATRP (Poster No. 05).
5) Poster presentation in International conference on chemistry, conducted by Aligarh Muslim University on the topic a molecularly imprinted polymer based sensor for enantioselective analysis of thyroxine (2011).
6) Poster presentation in National conference on chemistry, conducted by Banaras Hindu University, and get 2nd prize among the best poster ward category (2012).
7) Oral presentation in National symposia on advanced functional materials held at Banaras Hindu University on the topic "Imprinted Hyperbranched Polymer Modified Sensor for the Trace Level Detection of Vitamin B9" (2012).

Abstract published in conference proceedings

1) In 98th Indian Science Congress, on the topic Enantioselective separation and electrochemical sensing of D- and L-tryptophan at ultra trace level using molecularly imprinted micro-solid phase extraction fiber coupled with complementary molecularly imprinted polymer-fiber sensor in the section of chemical sciences (page no. 19) (2009).
2) In International conference INDIAS 2010, conducted by Nanotechnology Application Centre, Allahabad, on the topic Double imprinting in a single molecularly imprinted polymer format for determination of ascorbic acid and dopamine (MC 01 POS 133) (2010).
3) In International conference INDIAS 2010, conducted by Nanotechnology Application Centre, Allahabad, on the topic Molecularly imprinted polymer modified electrochemical sensor for simultaneous determination of copper and zinc (MC 01 POS 131) (2010).
4) In National conference on Experimental Tool for material Science Research: State of Art, 2010; conducted by Department of Physics, Mahila Maha Vidyalaya, BHU on the topic Estimation of heavy metal ions using multi-imprinted polymer (page no. 15) (2010).

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5) In National conference on Experimental Tool for material Science Research: State of Art, 2010; conducted by MMV, BHU on the topic Molecularly imprinted polymer-carbon composite fiber: A new format containing multiple recognition sites for ascorbic acid and dopamine (page no. 46) (2010).

6) In national conference on polymer nanocomposite, conducted by Delhi University, on the topic MWCNTs modified polymer composite for the estimation of heavy metal ions (2011).

7) In International conference on chemistry, conducted by Aligarh Muslim University on the topic a molecularly imprinted polymer based sensor for enantioselective analysis of thyroxine (2011).

8) In National conference on chemistry, held at Banaras Hindu University on the topic "grafting-from" approach for the fabrication of a new folic acid sensor (2011).

9) In National Conference on Recent Advances in Condensed Matter Physics (NCRACMP), held at the Department of Physics, Aligarh Muslim University on the topic "Nanomaterial based sensor: A boon in the field of diabetes mellitus" (2011).

10) In National conference on Recent Trends in Instrumental Methods of Analysis held at Indian Institute of Technology Roorkee, Roorkee on the topic A Molecularly imprinted polymer based electrochemical sensor for the enantiodifferentiation of D- and L-thyroxine (2011).

11) In International Conference on Advances in Polymer Science and Rubber Technology (APSRT); Challenges Towards 2020 and beyond held at IIT Kharagpur, on the topic Synthesis of hyperbranched polymer by initiator-fragment incorporation radical polymerization mechanism (2011).

12) In National Conference On Excellence In Technology & Management (NCETM 2011) held at Sunder Deep Engineering College, Ghaziabad, on the topic 'grafting-to' approach for the fabrication of imprinted polymer based sensor (2011).

13) In National Conference On Excellence In Technology & Management (NCETM 2011) held at Sunder Deep Engineering College, Ghaziabad, on the topic "Detection of enantiomer from their racemic mixture using molecular imprinting technology" (2011).

14) In national conference on recent advances in materials and technology (NCRAMT 2011) held at Haldia Institute of Technology Haldia on the topic "Application of molecular imprinting technology" (2011).

15) In national conference on recent advances in materials and technology (NCRAMT 2011) held at Haldia Institute of Technology Haldia on the topic 'Smart Polymer' for Enantio-selective Analysis of Amino Acid (2011).

16) In CONIAPS-XIII, 13th International conference of International Academy of Physical Sciences held at University of Petroleum and Energy Studies, Dehradun on the topic "Imprinted Hyperbranched Polymer Modified Sensor for the Trace Level Detection of Folic Acid" (2011).

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17) In CONIAPS-XIII, 13th International conference of International Academy of Physical Sciences held at University of Petroleum and Energy Studies, Dehradun on the topic "Application of MWCNT-ceramic Electrode for the Real world Analysis of Dopamine" (2011).

18) In national conference on emerging trend in chemistry-biology interface (ETCBI-2011) held at Kumaun University, Kumaun on the topic 'Smart polymer' for enantio-selective analysis of amino acid (2011).

19) In International symposium on chemistry and complexity held at Indian Association for the Cultivation of Science, Kolkata on the topic "A combination of sol-gel and nanotechnology for the detection of dopamine" (2011).

20) In International symposium on chemistry and complexity held at Indian Association for the Cultivation of Science, Kolkata on the topic "Synthesis of target specific biocompatible nanocomposite for real sample analysis of insulin" (2011).

21) In National symposia on advanced functional materials held at Banaras Hindu University on the topic "Imprinted Hyperbranched Polymer Modified Sensor for the Trace Level Detection of Vitamin B9" (2012).

22) In national conference on "advances in lasers and spectroscopy" (ALS-2012) held at Indian School of Mines, Dhanbad on the topic "A Combination of Nanoparticle and Molecular Imprinting Technology for the Selective Determination of Cancer-Biomarker" (2012).

23) In national conference on "advances in lasers and spectroscopy" (ALS-2012) held at Indian School of Mines, Dhanbad on the topic "A review of nanocomposite semiconducting sensing material" (2012).

24) In International conference on "INDO-US Workshop on electrocatalytic materials" held at Banaras Hindu University, Varanasi on the topic "Imprinted nanoparticles for the electrochemical sensing of doxorubicin" (2013).

25) In 7th RSC-CRSI and 15th CRSI-NSC held at Banaras Hindu University, Varanasi on the topic "Complex-ion imprinted polymer based sensor for the enantioselective analysis of L- & D-Histidine (2013).

26) In International Conference on Chemistry: Frontiers & Challenges held at Aligarh Muslim University, Aligarh Designing on the topic of "Target-Specific Sites on Nanostructures for the Early Diagnosis of Cancer Biomarker" (2013).

27) International workshop on material modelling and simulation held at Shri Sankaracharya Group of Institution, Bhilae (M.P.) on the topic "Nanobiotechnology: A new horizon for cancer theragnosis" (2013).

28) International Conference on Structural and physical properties of solids held at Indian School of Mines, Dhanbad, on the topic "An investigation on structural and electrochemical properties of mixed phase TiO2 nanocomposites" (2013).

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29) International Conference on Structural and physical properties of solids held at Indian School of Mines, Dhanbad, on the topic "Low temperature synthesis of rutile phase titanium dioxide nanostructures and their photoluminescence properties" (2013).

30) International Conference on Structural and physical properties of solids held at Indian School of Mines, Dhanbad, on the topic "Synthesis of electropolymerized molecularly imprinted polyarginine nanofilm for adenine detection" (2013).

31) International Conference on Structural and physical properties of solids held at Indian School of Mines, Dhanbad, on the topic "Fabrication of composite electrode on ceramic fabric for determination of omeprazole" (2013).

32) International Conference on Structural and physical properties of solids held at Indian School of Mines, Dhanbad, on the topic "Development of molecularly imprinted nanoparticle for trace level recognition of cancer marker by surface polymerization technique" (2013).

33) 3rd International conference on advanced nanomaterials and nanotechnology held at IIT-Guwahati on the topic "Metronidazole electrochemical sensor on glutamic acid modified molecularly imprinted polymer film" (2013).

34) 3rd International conference on advanced nanomaterials and nanotechnology held at IIT-Guwahati on the topic "Synthesis of molecularly imprinted polymer by non-hydrolytic sol-gel method for the trace level detection of anti-diabetic drug" (2013).

35) XXXIII Annual conference of Indian Council of Chemists (ICC), 2014 held at Indian School of Mines, Dhanbad on the topic "Molecularly imprinted polyarginine/MWCNTs nanowire for trace level detection of heavy metal ions in biological samples" (2014).

36) XXXIII Annual conference of Indian Council of Chemists (ICC), 2014 held at Indian School of Mines, Dhanbad on the topic "Designing of Plastic antibody for the ultra-trace level detection of Ferritin" (2014).

37) International conference on multifunctional materials, structures and applications (ICMMSA-2014) held at MNNIT, Allahabad (U.P.) on the topic "Designing of core shell fluorescent nanoparticles based optical sensor for the trace level determination of ferritin in human blood serum" (2014).

38) International conference on multifunctional materials, structures and applications (ICMMSA-2014) held at MNNIT, Allahabad (U.P.) on the topic "Investigations of Crystal Defects and Its Consequence on Luminescence Properties of Chemically Grown SnO2 Nanoparticles" (2014).

39) 2nd international conference on nanostructured materials and nanocomposites (ICNM 2014) held at Mahatma Gandhi University, Kottayam, Kerala on the topic "Designing of imprinted biocompatable nanofilm for rapid and sensitive detection of anaerobic protozoan" (2014).

40) 2nd international conference on nanostructured materials and nanocomposites (ICNM 2014) held at Mahatma Gandhi University, Kottayam, Kerala on the topic "Novel MWCNT-based molecularly imprinted nanoparticles for the rapid and simple detection of PSA in human blood sera" (2014).

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41) Current Trends in advanced Materials (CTMat-2014) held at VECC, Kolkata on the topic "Gas sensing capabilities of Zn doped Nickel Ferrite nanodiscs" (2014).