

BIO-DATA

Updated 22-Feb-2019

- 1. Name:** Z. V. P. MURTHY
- 2. Birth Date:** 26/08/1964
- 3. Address:** Professor (HAG Scale),
Department of Chemical Engineering
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<http://www.svnit.ac.in/facup/zvp.pdf>



4. Educational Qualifications:

| <i>Degree and Specialization</i> | <i>University/Institute</i> | <i>Year of Completion</i> |
|----------------------------------|---|---------------------------|
| B.Tech. (Chemical) | Regional Engineering College, Warangal, Andhra Pradesh (Presently National Institute of Technology, Warangal) | 1986 |
| M.Tech. (Chemical) | Indian Institute of Technology, Kharagpur | 1991 |
| Ph.D. (Chemical) | Indian Institute of Technology, Delhi, New Delhi | 1997 |
| PG Diploma in Computer Science | Central University of Hyderabad, Hyderabad, Andhra Pradesh | 2000 |

5. Industrial Experience: About 2 years.

Worked in industries at Hyderabad in the production of Monochloro Acetic acid and its derivatives, and Sulfamethoxazole basic drug, about 2 years after B.Tech.

| <i>Industry</i> | <i>Post held</i> | <i>Period</i> |
|---|------------------|-------------------------|
| MCA Chemicals Limited, Hyderabad | G.E.T. | 22/12/1986 - 14/02/1988 |
| Hitesh Chemicals & Drugs (Private) Limited, Hyderabad | Process Engineer | 15/02/1988 - 25/08/1988 |
| Reliance Cellulose Products Limited, Hyderabad | Plant-In-Charge | 14/02/1989 - 26/06/1989 |

6. Teaching and Research Experience: U.G. and P.G. Teaching: About 24 years.

| <i>Institute</i> | <i>Post held</i> | <i>Period</i> |
|---|---|---|
| D. D. Institute of Technology, Nadiad, Gujarat | Lecturer | 21/04/1995 - 24/06/1999 |
| | Senior Lecturer | 25/06/1999 - 04/09/2000 |
| Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat | Assistant Professor | 05/09/2000 - 16/10/2006 |
| Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat | Professor Professor (HAG Scale) (HoD:22/12/2005-22/12/2008) (HoD:05/10/2011 - 8/01/2014) (HoD:23/02/2016 -26/02/2018) | 17/10/2006 - 28/01/2019 29/01/2019 – till date |

7. Research Fields of Interest: Wastewater Treatment, Separation Processes (membrane separations, electrocoagulation, etc.), Nanomaterials.

8. M.Tech/M.E. Dissertations Guided: 38 + 1 Going-on (including the one which won ISTE – IPCL National Award for 2nd Best M.E. (Chemical) thesis for 2000 and the another one which Won the Indian National Academy of Engineering-Innovative Student Projects Award – 2010.

(please see *Appendix-I*)

9. Ph.D. Supervisor: 17 Completed + 1 Thesis Submitted + 4 Going-on.

(Including **TWO** Theses which successively received “**Dr A V Rama Rao Foundation’s Best Ph.D. Thesis** and Research Award in Chemical Engineering/Technology-IChE Award” for the Years 2013 & 2014. It is a National Level Award given away by the Indian Institute of Chemical Engineers (IChE) and **another one** received **Gandhian Young Technological Innovation** (GYTI) Award-2015). (please see *Appendix-II*)

10. Ph.D. Thesis Examiner: Till date Examined **18 Ph.D. theses of Indian / Foreign Universities / IITs.**

Ph.D. theses examined for Osmania University, Hyderabad; Dr. Babasaheb Ambedkar Technological University (BATU), Lonere, Maharashtra; Indian Institute of Technology, Bombay; Jawaharlal Nehru Technological University (JNTU), Anantapur; JNTU, Hyderabad; Universiti Putra Malaysia (UPM), Malaysia; Curtin University, Australia; University of Malaya, Malaysia; Uttar Pradesh Technical University, Lucknow; Indian Institute of Technology, Roorkee; University of Madras; Andhra University, Vishakapatnam; National Institute of Technology, Raipur; and CSIR-CSMCRI, Bhavnagar.

11. Research Projects: 6 completed + 2 going-on

(i). MHRD Thrust Area Research Project (Rs.8.00 Lacs) for “**Removal/recovery of toxic material/trace metals from wastewaters by membrane separation processes**”. (Principal Investigator; Co-Investigator: Dr. M. Mukhopadhyay) (2002-2004).

(ii). A.I.C.T.E. R&D Project (Rs.4.80 Lacs) for “**Multi-component metal extraction from wastewater by liquid surfactant membrane**”. (Co-Investigator; Principal Investigator: Dr. M. Chakraborty) (2003-2006).

(iii) R & D Grant of the Institute (Rs.6.05 Lacs) for “**Studies on shape profile of liquid droplets from nozzle**”. (Principal Investigator) (2007-2008).

(iv) R & D Grant of the Institute (Rs.4.14 Lacs) for “**Evaluate the performance of tertiary treatment in a full scale upflow anaerobic sludge blanket (UASB) based sewage treatment plant (STP)**”. (Co-Investigator; Principal Investigator: Dr. A.K. Mungray) (2007-2008)

(v) R & D Grant of the Institute (Rs.2.25 Lacs) for “**Sonocrystallization for the recovery of valuable products from dairy waste stream**”. (Co-Investigator; Principal Investigator: S.R. Patel) (2007-2008)

(vi) Department of Science & Technology (Rs.5.76 Lacs) for “**Synthesis of alumina supported ruthenium nanocatalyst using microemulsion technique**”. (Co-Investigator; Principal Investigator: Dr. M. Chakraborty) (2009-2012)

(vii) Gujarat Council on Science and Technology (GUJCOST), Department of Science and Technology, Gujarat, (Rs.5.10 Lacs) for “**Studies on interfacial characteristics of liquid - liquid system**”. (Co-Investigator; Principal Investigator: Dr. V. N. Lad) (2016-2018)

(viii) Science & Engineering Research Board (SERB), Department of Science & Technology (Rs.35,04,655/-), for “**Designing of green synthetic approaches for atomically precise nanoclusters for dictating their specific interactions: Development of miniaturized analytical methods**”. (Co-Investigator; Principal Investigator: Dr. Suresh Kumar Kailasa) (2017-2020)

12. Consulting Experience: Rendered consultancy work to couple of Industries.

13. Patents: 10 Granted and 4 Under Examination (for details please see *Appendix -III*)

14. Reviewer:

Reviewed/reviewing technical papers for 155 International/National Journals (which includes 132 SCI/SCIE; 5 ESCI; 4 SCOPUS Journals) in the fields of Chemical Engineering, Environmental Engineering/Management and Separation Techniques, etc. (for details please see *Appendix-IV*)

15. Publications and Presentations: Total: 356

(Total Full Papers Published/Accepted for Publication: 243)

Full Papers Published /Accepted for Publication in SCI/SCIE Journals: 165

Full Papers Published in Miscellaneous International Journals: 13

Full Papers Published in Miscellaneous National Journals/Magazines: 17

Full Papers Published as Chapters in International Books: 9

Full Papers Presented & Published in International Conferences Proceedings: 20

Full Papers Presented & Published in National Conferences Proceedings: 19

Papers Presented at International Conferences: 49

Papers Presented at National Conferences: 64

*(for details of published full papers please see **Appendix-V**)*

16. Memberships in Professional Bodies: 17

*(Please see **Appendix-VI**)*

17. Editorial Board Member:

(i) "**Waste and Biomass Valorization**" Journal (Springer, since 2009)

(ii) "**Athens Journal of Technology and Engineering**" [Athens Institute for Education and Research (ATINER), Greece, since 2016]

(iii) "**Athens Journal of Sciences**" (ATINER, Greece, since 2016)

(iv) Guest Editor for "**Separation Science and Technology**" (Taylor & Francis Group Publication, USA)

18. Citations Record: 3571 (Source: Google Scholar Citations: as on 21-Feb-2019)

h-index (Hirsch index): **31**

i10-index: **88**

M.E./M.TECH. DISSERTATIONS GUIDED

| Sr. No. | Student Name (Adm. No.) | Month & Year of Completion | Title of Thesis | Co-Guide (if any) |
|---------|--------------------------------|----------------------------|---|-----------------------------|
| 1. | M.S. Bhakhar | 1999 | An experimental investigation of hydrolysis of acetic anhydride in a spiral tube coil reactor. | Dr. N.S. Jayakumar |
| 2. | A.G. Zambad | 2000 | A kinetic study and dynamics of biosynthesis of dextran in batch fermenter. | Dr. N.S. Jayakumar |
| 3. | M.T. Dhotre | 2000 | Modeling and dynamics of heat transfer cooling of liquid using half-coil jacket. (Won ISTE – IPCL National Award for 2nd Best M.E. (Chemical) thesis for 2000) | Dr. N.S. Jayakumar |
| 4. | V.D. Karia | 2000 | Kinetics and modeling of biosynthesis of gibberellic acid in batch fermenter. | Dr. N.S. Jayakumar |
| 5. | H.R. Patel | 2001 | Accessing of inaccessible unsteady-state by use of cascade of non-isothermal CSTR in series. | Dr. N.S. Jayakumar |
| 6. | Tejal Patel | 2001 | Experimental investigation of acid catalyst hydrolysis of acetic anhydride in tubular reactor. | Dr. N.S. Jayakumar |
| 7. | Telu Prabhakar | 2004 | Fluoride removal from industrial wastewater economically. | N.N. Patel (Guide) |
| 8. | Latesh B. Chaudhari (P05CH802) | July 2007 | Studies on separation of heavy metals from aqueous solutions by nanofiltration and characterization of the membrane. | ----- |
| 9. | Nilam B. Patel (P05CH804) | July 2007 | Mercury removal from aqueous solutions by adsorption using zeolites. | Dr. P.A. Parikh |
| 10. | A.K. Agrawal (P06CH801) | July 2008 | Pervaporative separation of ethanol/water mixtures and industrial effluent. | ----- |
| 11. | Pankaj J. Gandhi (P06CH803) | July 2008 | Manufacturing of p-anisic acid. | ----- |
| 12. | Konakala Prakash (P06CH808) | July 2008 | Evaluation of performance of post treatment in a full-scale up-flow anaerobic sludge blanket (UASB) based sewage treatment for anionic surfactants. | Dr. A.K. Mungray |
| 13. | N.L. Chauhan (P07CH806) | July 2009 | Catalytic cracking of naphtha over zeolites. | Dr. P.A. Parikh (Guide) |
| 14. | Vishal Jadav (P07CH812) | July 2009 | Organics separation by pervaporation. | Dr. M. Mukhopadhyay (Guide) |
| 15. | V.N. Lad (R07CH801) | August 2009 | Studies on profile of liquid jet. | ----- |
| 16. | Swati Sharma (RS07CH807) | May 2010 | Degradation of 4-Chlorophenol in waste water by organic oxidants. (Won the Indian National Academy of Engineering-Innovative Student Projects Award – 2010) | Dr. M. Mukhopadhyay (Guide) |
| 17. | Dainik D. Patel (P08CH802) | July 2010 | Preparation of novel thin film composite membranes for desalination. | ----- |
| 18. | Jayant Singh (P08CH808) | July 2010 | Preparation, characterization and performance of polymeric membranes for nanofiltration and pervaporation. | Dr. Alka A. Mungray |
| 19. | Rahul V. Matte (P08CH810) | July 2010 | Studies on submersible membrane based water purification systems. | ----- |
| 20. | Snehal R.Parmar (P08CH812) | July 2010 | Treatment of metal containing aqueous wastewater by electrocoagulation. | ----- |
| 21. | Smitha Rajesh (RS07CH811) | October 2010 | Polymeric support catalyst system – Ethylene polymerization. | Dr. P.A. Parikh |
| 22. | Harshad R. Patil (RS07CH809) | April 2011 | Studies on synthesis of chemical compounds for nucleation of polypropylene. | Dr. P.A. Parikh |
| 23. | Saurabh Singh (RS07CH810) | April 2011 | Microwave assisted synthesis of polyethersulfone. | Dr. M. Chakraborty |
| 24. | Anshul Choudhary (P09CH804) | August 2011 | Removal of lanthanides by nanofiltration. | ----- |

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|-----|-----------------------------------|-------------|--|------------------------|
| 25. | Kartik R. Desai (P09CH820) | August 2011 | Studies on separation of heavy metals from aqueous solutions by complexation-ultrafiltration. | ----- |
| 26. | Mrigash Kumar Shah (P09CH810) | August 2011 | Pervaporation separation of alcohols using poly(vinyl alcohol) membrane. | ----- |
| 27. | Anshika Rani (P09CH812) | August 2011 | Wastewater treatment by electrocoagulation. | ----- |
| 28. | Mahendra S. Gaikwad (P10CH826) | June 2012 | Studies on separation of metal ions from aqueous solutions by nanofiltration. | ----- |
| 29. | Ashishkumar D. Modi (P10CH828) | June 2012 | Microwave assisted synthesis of Sn-ZSM-5 zeolite membrane and its application in pervaporation. | ----- |
| 30. | Kaushal R. Parmar (P11CH021) | June 2013 | Wastewater treatment by graphene-TiO ₂ nanocomposite and clay materials. | Dr. Shaik Basha |
| 31. | Preeti Mishra (P11CH030) | June 2013 | A study on synthesis of nanoparticles, proton exchange membranes and membrane electrode assembly for direct methanol fuel cell. | Dr. Jignasa N. Solanki |
| 32. | Hemang R. Mehta (P11CH031) | June 2013 | Preparation and application of sodium montmorillonite clay loaded poly(vinyl alcohol)-chitosan composite matrix pervaporation membranes. | ----- |
| 33. | Meesala Sitharam (P12CH007) | July 2014 | Removal of pharmaceutical compounds from aqueous solutions by adsorption and photodegradation. | Dr. Shaik Basha |
| 34. | Harshal A. Gulhane (P12CH015) | July 2014 | Study on pervaporative separation of benzene-isooctane mixture by using poly(vinyl)alcohol/graphene composite membranes. | ----- |
| 35. | Ganesh B. Thorat (P13CH010) | July 2015 | Study on separation of isopropanol – water mixtures by using poly(vinyl) alcohol composite membranes by pervaporation. | Dr. Smita Gupta |
| 36. | Jainesh H. Jhaveri (P13CH015) | July 2015 | Preparation, modification, characterization and application of polymeric membranes for anti-fouling and enhanced performance. | Dr. C.M. Patel |
| 37. | Jibin Babu (P14CH003) | June 2016 | Preparation, characterization and application of poly(vinyl alcohol) thin-film composite nanofiltration membranes in synthetic wastewater treatment. | ----- |
| 38. | Mene Nikhil R. (P16CH005) | July 2018 | Membrane distillation- crystallization. | ----- |

DOCTORAL THESES SUPERVISED

| Sr. No. | Name of Student (Admission No.) (Registration Date) | Month & Year of Completion (Ref & Notification Date & Notification No.) | Title of Thesis | Co-Supervisor (if any) | Remarks |
|---------|---|--|---|---|---------|
| 1. | Shaik Bhasha (D05CH404) (25/07/2005) | November 2008 (Acad/Ph.D/698/2008-09 dated 12/11/2008) Ph.D. Notification No. 6 | Studies on removal of heavy metals from wastewaters by novel biosorbents. | ----- | ----- |
| 2. | Alka G. Boricha (D06CH401) (20/07/2006) | October 2009 (Acad/Ph.D/384/2009-10 dated 01/10/2009) Ph.D. Notification No.13 | Nanofiltration membranes: preparation, characterization and applications in heavy metals removal from wastewaters. | ----- | ----- |
| 3. | John U. Kennedy Oubagaranadin (D05CH401) (22/07/2005) | March 2010 (Acad/Ph.D/662/2009-10 dated 25/03/2010) Ph.D. Notification No.16 | Removal of heavy metals from aqueous solutions using different adsorbents. | ----- | ----- |
| 4. | Lateshkumar B. Chaudhari (DS07CH405) (18/01/2008) | August 2011 (Acad/Ph.D/340/2011-12 dated 09/08/2011) Ph.D. Notification No.34 | Studies on removal of heavy metals by nanofiltration. (Received “IChE Award for the Year 2013: Dr A V Rama Rao Foundation’s Best Ph.D. Thesis and Research Award in Chemical Engineering/Technology”). It is a National Level Award given away by the Indian Institute of Chemical Engineers (IChE). | ----- | ----- |
| 5. | Sanjaykumar R. Patel (DS07CH403) (18/01/2008) | August 2011 (Acad/Ph.D/358/2011-12 dated 12/08/2011) Ph.D. Notification No.35 | Recovery of lactose from dairy waste streams by sonocrystallization. | ----- | ----- |
| 6. | Jignasa N. Solanki (DS07CH404) (18/01/2008) | June 2012 (Acad/Ph.D/168/2011-12 dated 28/06/2012) Ph.D. Notification No.49 | Synthesis and applications of metallic nanoparticles. (Received “IChE Award for the Year 2014: Dr A V Rama Rao Foundation’s Best Ph.D. Thesis and Research Award in Chemical Engineering/Technology”). It is a National Level Award given away by the Indian Institute of Chemical Engineers (IChE). | ----- | ----- |
| 7. | Jyoti V. Tolia (DSO8CH405) (23/01/2009) | September 2012 (Acad/Ph.D/365/2012-13 dated 11/09/2012) Ph.D. Notification No.57 | Preparation, characterization and applications of group II-VI semiconductor nanomaterials. | Dr. Mousumi Chakraborty (Main Supervisor) | ----- |
| 8. | M.V. Karkare (D08CH401) (24/07/2008) | October 2012 (Acad/Ph.D/405/2012-13 dated 01/10/2012) Ph.D. Notification No.62 | Studies on kinetics of aerobic biological oxidation of complex organic waste. | ----- | ----- |
| 9. | Pankaj J. Gandhi (D08CH404) (24/07/2008) | April 2013 (Acad/Ph.D/86/2012-13 dated 25/04/2013) Ph.D. Notification No.86 | Synthesis of nanoparticles and their release kinetics in simulated conditions of cardiovascular and dermal diseases. | ----- | ----- |

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|-----|---|---|---|--|------------------|
| 10. | Virang N. Lad (D10CH401) (16/07/2010) | October 2013 (Acad/Ph.D/464/ 2013-14 dated 01/10/2013) Ph.D. Notification No.109 | Studies on effects of interfacial interactions of some natural materials on oil-in-water emulsions and rheology of selected complex fluids. (Received "Gandhian Young Technological Innovation (GYTI) Award-2015", under the aegis of "Society for Research and Initiatives for Sustainable Technologies and Institutions" (SRISTI) for the work "Use of High Nutrient, Low Cost Natural Materials for Preparation of Well-Engineered Emulsions for Variety of Applications" which is based on his Ph.D. work.) | ----- | ----- |
| 11. | Swati Sharma (D10CH406) (19/07/2010) | January 2014 (Acad/Ph.D/115/ 2013-14 dated 01/01/2014) Ph.D. Notification No.115 | Degradation of chlorophenols from wastewaters. | Dr. Mausumi Mukhopadhyay (Main Supervisor) | ----- |
| 12. | Chetan M. Patel (D09CH404) (23/07/2009) | July 2014 (Acad/Ph.D/185/ 2013-14 dated 01/07/2014) Ph.D. Notification No.141 | Processing nanomaterials in stirred media mills. | Dr. Mousumi Chakraborty | ----- |
| 13. | Smita Gupta (D09CH403) (23/07/2009) | July 2014 (Acad/Ph.D/253/ 2014-15 dated 30/07/2014) Ph.D. Notification No.148 | Application of liquid membranes for the removal of mercury and bisphenol A from aqueous solutions. | Dr. Mousumi Chakraborty | ----- |
| 14. | Amiben H. Vyas (DS09AS301) (31/12/2009) | February 2015 (Acad/Ph.D/737/ 2014-15 dated 26/02/2015) Ph.D. Notification No.186 | Adsorptive studies on palladium(II) and platinum(IV) using rice husk and its derivatives. | Dr. Smita Jauhari (Main Supervisor) | ----- |
| 15. | Nalin H. Maniya (DS11CH002) (09/01/2012) | August 2015 (Acad/Ph.D/217/ 2015-16 dated 04/08/2015) Ph.D. Notification No.217 | Nanostructured porous silicon materials for drug delivery applications. | Dr. S.R. Patel | ----- |
| 16. | Harshad R. Patil (D11CH002) (21/07/2011) | January 2018 (Acad/Ph.D./375/ 2017-18 dated 23/01/2018) Ph.D. Notification No.375 | Application of ionic liquids for nanoparticles synthesis and separation studies. | ----- | ----- |
| 17. | Smitha Rajesh (DS10CH402) (31/01/2011) | January 2018 (Acad/Ph.D./376/ 2017-18 dated 25/01/2018) Ph.D. Notification No.376 | Synthesis, characterization and application of <i>in situ</i> antioxidant incorporated polymeric membranes. | ----- | ----- |
| 18. | Saurabh C. Singh (DS11CH001) (09/01/2012) | Expected in 2018 | Effect of hemicelluloses on viscose application of membranes for their removal from process stream | ----- | Thesis submitted |

PATENTS

Patents Granted: 10 and Patents Under Examination: 4

Patents Granted: 10**1. South African Patent: ZA Patent No. 2011/09415**

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj; **Murthy Zagabathuni Venkata Panchakshari**

Patent Granted Date: 29-August-2012

2. United States of America Patent: Patent No. US 8778013B2

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj; **Murthy Zagabathuni Venkata Panchakshari**

Patent Granted Date: 15-July-2014

3. New Zealand Patent: Patent No. 597308

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj; **Murthy Zagabathuni Venkata Panchakshari**

Patent Granted Date: 30-October-2014

4. Australia Patent: Patent No. 201025245

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj; **Murthy Zagabathuni Venkata Panchakshari**

Patent Granted Date: 13-November-2014

5. Indian Patent: Patent No. 263852

Application Published in “**The Patent Office Journal**” (Journal No. 30/2010. Page 21300).

Title: A process for the preparation of p-anisic acid.

Inventors: Dr. Pankaj J. Gandhi, Dr. Yogen H. Talia and **Dr. Z.V.P. Murthy**

Patent Granted Date: 25-November-2014

6. China Patent: Patent No. CN102481196B

Title: Nano - carrier - coated implanted drug delivery medical equipment

Inventors: M. Doshi; D. Sherdiwala; P. Sojitra; A. Vyas; P. Gandhi; **Z.V.P. Murthy**

Patent Granted Date: 27-May-2015

7. Japan Patent: Patent No. JP5861632B2

Title: Resuscitation of blood flow in a blocked human artery by delivering nano-encapsulated drug through a medical device designed for it and releasing nano-encapsulated drug in human artery using body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj;
Zagabathuni Venkata Panchakshari Murthy
Patent Granted Date: 16-February-2016

8. Russia Patent: Patent No. RU2605793C2

Title: Resumption of blood flow in human blocked arteries by transferring nano-encapsulated drug by means of nano-encapsulated drug within designed there for and release of nano-encapsulated drug within human artery at physiologic pH level.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj;
Zagabathuni Venkata Panchakshari Murthy
Patent Granted Date: 27-December-2016

9. Israel Patent: Patent No. 216446

Title: Re-establishment of blood flow in blocked human arteries by transferring nanoencapsulated drug through medical devices, designed for the same and releasing the nanoencapsulated drug in human artery with body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj;
Murthy Zagabathuni Venkata Panchakshari.
Patent Granted Date: 21-April-2016

10. European Patent: Patent No. EP2434994

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Manish Doshi; Divyesh Sherdiwala; Prakash Sojitra; Ashwin Vyas; Pankaj Gandhi;
Zagabathuni Murthy
Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj;
Zagabathuni Venkata Panchakshari Murthy
Patent Granted Date: 24.11.2017 (Communication of intention to grant a patent)

Patents Under Examination: 4

1. International Patent Application Published Under the Patent Cooperation Treaty (PCT)

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Manish Doshi; Divyesh Sherdiwala; Prakash Sojitra; Ashwin Vyas; Pankaj Gandhi; **Zagabathuni Venkata Panchakshari Murthy**

International Application Number: PCT/IN 2010/000347

Date of International Filing of Application: May 21, 2010.

International Publication Number: WO 2010/137037 A2

Date of Publication: December 2, 2010.

2. Indian Patent Application Published in "The Patent Office Journal" (Journal No. 49/2010. Page 3093).

Title: Re-establishment of blood flow in blocked human arteries by transferring nano-encapsulated drug through medical devices, designed for the same and releasing the nano-encapsulated drug in human artery with body pH.

Inventors: Manish Doshi; Divyesh Sherdiwala; Pankaj Gandhi; Prakash Sojitra; Ashwin Vyas; **Zagabathuni Venkata Panchakshari Murthy**

Application Number: 1324/MUM/2009 A.

Date of Filing of Application: May 29, 2009.

Date of Publication: December 3, 2010.

3. Indian Patent Filed on 23/02/2011

Title: A drug –eluting device with a selectively permeable membrane.

Inventors: Manish Doshi, Pankaj Gandhi, **Zagabathuni Venkata Panchakshari Murthy**

Application Number: 500/MUM/2011

4. WIPO Patent Application No. WO / 2010 / 137067A3

Title: Re-establishment of blood flow in blocked human arteries by transferring nanoencapsulated drug through medical devices, designed for the same and releasing the nanoencapsulated drug in human artery with body pH.

Inventors: Doshi Manish; Sherdiwala Divyesh; Sojitra Prakash; Vyas Ashwin; Gandhi Pankaj; **Murthy Zagabathuni Venkata Panchakshari.**

RECOGNITION AND CITATIONS**Reviewed/reviewing technical papers for the following Journals: 155**

1. **ACS Applied Materials & Interfaces** (American Chemical Society, USA) (SCI/SCIE Journal)
2. **ACS Sustainable Chemistry & Engineering** (American Chemical Society, USA) (SCIE Journal)
3. **Advanced Powder Technology** (Elsevier Scientific Publication, The Netherlands) (SCIE Journal)
4. **Advances in Polymer Technology** (Wiley-Blackwell, USA) (SCIE Journal)
5. **African Journal of Biotechnology** (Academic Journals, Kenya) (SCIE Journal)
6. **African Journal of Environmental Science and Technology** (Academic Journals, Kenya)
7. **African Journal of Microbiology Research** (Academic Journals, Kenya) (SCIE Journal)
8. **African Journal of Pure and Applied Chemistry** (Academic Journals, Kenya)
9. **AIChE Journal** (American Institute of Chemical Engineers, USA) (SCI/SCIE Journal)
10. **Ambiente & Água** (Revista Ambiente & Água)(University of Taubaté, Brazil) (SCOPUS listed)
11. **Analytical Methods** (Royal Society of Chemistry, UK) (SCIE Journal)
12. **Applied Clay Science** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
13. **Applied Geochemistry** (Elsevier) (SCI/SCIE Journal)
14. **Applied Nanoscience** (Springer, USA) (ESCI Journal)
15. **Applied Surface Science** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
16. **Applied Water Science** (Springer, USA) (ESCI Journal)
17. **Arabian Journal for Science and Engineering** (Springer Heidelberg, Germany) (SCIE Journal)
18. **Arabian Journal of Chemistry** (Elsevier Scientific Publication, The Netherlands) (SCIE Journal)
19. **Asia-Pacific Journal of Chemical Engineering** (John Wiley & Sons, USA) (SCIE Journal)
20. **Athens Journal of Sciences** (Athens Institute for Education and Research, Greece)
21. **Atmospheric Research** (Elsevier Scientific Publication, USA) (SCI/SCIE Journal)
22. **Biochemical Engineering Journal** (Elsevier Scientific Publication, Switzerland) (SCIE Journal)
23. **Biodegradation** (Springer, USA) (SCI/SCIE Journal)
24. **Bioinorganic Chemistry and Applications** (Hindawi Publishing, USA) (SCIE Journal)
25. **Bioremediation Journal** (Taylor & Francis Group Publication, USA) (SCIE Journal)
26. **Bioresource Technology** (Elsevier Scientific Publication, UK) (SCIE Journal)
27. **Bulgarian Chemical Communications** (Bulgarian Academy of Sciences, Bulgaria) (SCIE Journal)
28. **Canadian Journal of Chemistry** (Canadian Science Publishing) (SCI/SCIE Journal)
29. **Catalysis Letters** (Springer, USA) (SCI/SCIE Journal)
30. **Cellulose** (Springer, The Netherlands) (SCI/SCIE Journal)
31. **Chemical Communications** (Royal Society of Chemistry, UK) (SCI/SCIE Journal)
32. **Chemical Engineering Communications** (Taylor & Francis Group Publication, USA) (SCI/SCIE Journal)
33. **Chemical Engineering & Technology** (Wiley-Blackwell, USA) (SCIE Journal)
34. **Chemical Engineering Journal** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
35. **Chemical Engineering Research & Design** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
36. **Chemical Industry & Chemical Engineering Quarterly** (Association of Chemical Engineers, Serbia) (SCIE Journal)
37. **Chemical Product and Process Modeling** (The Berkeley Electronic Press, USA) (ESCI Journal)
38. **Chemistry and Ecology** (Taylor & Francis Group Publication, UK) (SCIE Journal)

39. **Chemosphere** (Pergamon-Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
40. **Clean-Soil Air Water** (Wiley-Blackwell, USA) (SCIE Journal)
41. **Colloids and Surfaces A: Physicochemical and Engineering Aspects** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
42. **Comptes Rendus Chimie** (Elsevier) (SCI/SCIE Journal)
43. **Computers & Chemical Engineering** (Pergamon-Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
44. **Critical Reviews in Environmental Science and Technology** (Taylor & Francis Group Publication, USA) (SCI/SCIE Journal)
45. **CrystEngComm** (Royal Society of Chemistry, UK) (SCI/SCIE Journal)
46. **Crystal Growth & Design** (American Chemical Society, USA) (SCI/SCIE Journal)
47. **Crystal Research and Technology** (Wiley-Blackwell, USA) (SCI/SCIE Journal)
48. **Current Nanoscience** (Bentham Science Publishers, UAE) (SCIE Journal)
49. **Current Pharmaceutical Analysis** (Bentham Science Publishers, UAE) (SCIE Journal)
50. **Current Science** (Indian Academy of Sciences, INDIA) (SCI/SCIE Journal)
51. **Dairy Science & Technology** (Springer, France) (SCI/SCIE Journal)
52. **Desalination** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
53. **Desalination and Water Treatment** (Taylor & Francis Group Publication, USA) (SCIE Journal)
54. **Drug Development and Industrial Pharmacy** (Informa Healthcare (Taylor & Francis Group) Publication, UK) (SCI/SCIE Journal)
55. **Dyes and Pigments** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
56. **Environmental Engineering and Management Journal** ("Gheorghe Asachi" Technical University of Iasi, Romania) (SCIE Journal)
57. **Energy & Fuels** American Chemical Society, USA) (SCI/SCIE Journal)
58. **Environmental Engineering Science** (Mary Ann Liebert, Inc., USA) (SCI/SCIE Journal)
59. **Environmental Justice** (Mary Ann Liebert, Inc., USA) (ESCI Journal)
60. **Environmental Monitoring and Assessment** (Springer, The Netherlands) (SCIE Journal)
61. **Environmental Science: Nano** (Royal Society of Chemistry, UK) (SCIE Journal)
62. **Environmental Science & Technology** (American Chemical Society, USA) (SCI/SCIE Journal)
63. **Environmental Science & Technology Letters** (American Chemical Society, USA) (SCIE Journal)
64. **Environmental Technology** (Taylor & Francis Group Publication, UK) (SCI/SCIE Journal)
65. **Express Polymer Letters** (Budapest Univ Technol & Econ, Hungary) (SCIE Journal)
66. **Fluid Phase Equilibria** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
67. **Frontiers of Environmental Science & Engineering in China** (Springer-Verlag, Germany) (SCIE Journal)
68. **Fuel** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
69. **Global NEST Journal** (University of the Aegean, Greece) (SCIE Journal)
70. **Green Chemistry Letters and Reviews** Taylor & Francis Group Publication, UK) (SCIE Journal)
71. **Heliyon** (Elsevier Scientific Publication) (SCOPUS listed)
72. **IE(I) Journal – CH** (Institution of Engineers (India): Chemical Engineering Division)
73. **Indian Journal of Chemical Technology** (NISCAIR, India) (SCIE Journal)
74. **Industrial & Engineering Chemistry Research** (American Chemical Society, USA) (SCI/SCIE Journal)
75. **International Journal of Environmental Science and Technology** (Springer, USA) (SCIE Journal)
76. **International Journal of Environment and Waste Management** (Inderscience Publishers, UK) (SCOPUS listed)
77. **International Journal of Industrial Chemistry** (Springer) (SCIE Journal)
78. **International Journal of Nanoscience and Nanotechnology** (Iranian Nanotechnology Society, Iran)

79. **International Journal of Phytoremediation** (Taylor & Francis Group Publication, USA) (SCIE Journal)
80. **International Research Journal of Biochemistry and Bioinformatics** (International Research Journals Publishing House, Nigeria)
81. **Ionics** (Springer-Heidelberg, Germany) (SCIE Journal)
82. **Iranian Journal of Chemistry & Chemical Engineering** (Iranian Institute of Research and Development in Chemical Industries, Tehran, Iran) (SCIE Journal)
83. **Journal of Advanced oxidation Technologies** (Science & Technology Network, Canada) (SCIE Journal)
84. **Journal of Agricultural Biotechnology and Sustainable Development** (Academic Journals, Kenya)
85. **Journal of Alloys and Compounds** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
86. **Journal of Applied Polymer Science** (John Wiley & Sons, USA) (SCI/SCIE Journal)
87. **Journal of Chemical and Engineering Data** (American Chemical Society, USA) (SCI/SCIE Journal)
88. **Journal of Chemical Engineering and Materials Science** (Academic Journals, Kenya)
89. **Journal of Chemical Technology and Biotechnology** (John Wiley & Sons, UK) (SCI/SCIE Journal)
90. **Journal of Chemistry** (Hindawi Publishing, USA) (SCIE Journal)
91. **Journal of Cluster Science** (Springer/Plenum Publishers, USA) (SCI/SCIE Journal)
92. **Journal of Colloid and Interface Science** (Elsevier Scientific Publication, USA) (SCI/SCIE Journal)
93. **Journal of Crystal Growth** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
94. **Journal of Dispersion Science and Technology** (Taylor & Francis Group Publication, USA) (SCI/SCIE Journal)
95. **Journal of Environmental Chemistry and Ecotoxicology** (Academic Journals, Kenya)
96. **Journal of Environmental Chemical Engineering** (Elsevier Scientific Publication, The Netherlands) (ESCI Journal)
97. **Journal of Environmental Management** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
98. **Journal of Environmental Protection Science** (Peking University, China)
99. **Journal of Environmental Science and Health Part A-Toxic/Hazardous Substances & Environmental Engineering** (Taylor & Francis) (SCI/SCIE Journal)
100. **Journal of Environmental Sciences** (Elsevier Scientific Publication, P.R. China) (SCIE Journal)
101. **Journal of Food Engineering** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
102. **Journal of Hazardous Materials** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
103. **Journal of Industrial and Engineering Chemistry** (Elsevier Scientific Publication, USA) (SCIE Journal)
104. **Journal of Materials Engineering and Performance** (Springer, USA) (SCIE Journal)
105. **Journal of Membrane Science** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
106. **Journal of Membrane Science and Research** (Amirkabir University of Technology, Iran)
107. **Journal of Molecular Liquids** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
108. **Journal of Nanomaterials** (Hindawi Publishing Corporation, USA) (SCIE Journal)
109. **Journal of Polymer Engineering** (Walter De Gruyter GMBH, Germany) (SCIE Journal)
110. **Journal of Polymer Materials** (M.D. Publications, India) (SCIE Journal)
111. **Journal of Polymer Research** (Springer, The Netherlands) (SCIE Journal)
112. **Journal of Porous Materials** (Springer, The Netherlands) (SCI/SCIE Journal)

113. **Journal of Pulp and Paper Science** (Pulp and Paper Technical Association of Canada) (SCI/SCIE Journal)
114. **Journal of Scientific Research** (Rajshahi University, Bangladesh)
115. **Journal of The Chilean Chemical Society** (Sociedad Chilena de Química, Chile) (SCI/SCIE Journal)
116. **Journal of the Chinese Advanced Materials Society** (Taylor & Francis)
117. **Journal of the Indian Chemical Society** (Indian Chemical Society, India) (SCIE Journal)
118. **Journal of the Taiwan Institute of Chemical Engineers** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
119. **Journal of Toxicology and Environmental Health Sciences** (Academic Journals, Kenya)
120. **Journal of Water Process Engineering** (Elsevier Scientific Publication) (SCOPUS listed)
121. **Journal of Water Supply Research and Technology-Aqua** (IWA Publishing, UK) (SCIE Journal)
122. **JoVE-Journal of Visualized Experiments** (MyJove Corp, USA) (SCIE Journal)
123. **Korean Journal Of Chemical Engineering** (Springer, USA) (SCIE Journal)
124. **Materials Chemistry and Physics** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
125. **Materials Letters** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
126. **Materials Research Bulletin** (Pergamon-Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
127. **Materials Science and Engineering B-Advanced Functional Solid-State Materials** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
128. **Membrane Water Treatment** (Techno-Press, Korea) (SCIE Journal)
129. **Microporous and Mesoporous Materials** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
130. **Nano** (World Scientific Publishing, Singapore) (SCIE Journal)
131. **Nanoscale** (Royal Society of Chemistry, UK) (SCIE Journal)
132. **Optik** (Elsevier) (SCI/SCIE Journal)
133. **Optics and Lasers in Engineering** (Elsevier Scientific Publication, UK) (SCIE Journal)
134. **Particulate Science and Technology** (Taylor & Francis Group Publication, USA)
135. **Polish Journal of Chemical Technology** (Versita Publishing, Poland) (SCIE Journal)
136. **Polymer** (Elsevier) (SCI/SCIE Journal)
137. **Polymer Composites** (Wiley-Blackwell, USA) (SCI/SCIE Journal)
138. **Polymer Engineering and Science** (Wiley-Blackwell, USA) (SCI/SCIE Journal)
139. **Powder Technology** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
140. **Process Biochemistry** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)
141. **Process Safety and Environmental Protection** (Elsevier Scientific Publication, UK) (SCIE Journal)
142. **Research on Chemical Intermediates** (Springer, The Netherlands) (SCI/SCIE Journal)
143. **Resources, Conservation & Recycling** (Elsevier Scientific Publication, The Netherlands) (SCIE Journal)
144. **RSC Advances** (Royal Society of Chemistry, UK) (SCIE Journal)
145. **Separation and Purification Technology** (Elsevier Scientific Publication, USA) (SCIE Journal)
146. **Separation Science and Technology** (Taylor & Francis Group Publication, USA) (SCI/SCIE Journal)
147. **SN Applied Sciences** (Springer)
148. **Solid State Sciences** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
149. **Thermal Science** (Society of Thermal Engineers of Serbia) (SCIE Journal)
150. **Thermochimica acta** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
151. **Waste and Biomass Valorization** (Springer, The Netherlands) (SCIE Journal)
152. **Water Air and Soil Pollution** (Springer, The Netherlands) (SCI/SCIE Journal)
153. **Water and Environment Journal** (Wiley-Blackwell, USA) (SCI/SCIE Journal)
154. **Water Environment Research** (Water Environment Federation, USA) (SCI/SCIE Journal)

155. **Water Research** (Elsevier Scientific Publication, UK) (SCI/SCIE Journal)

SCI: Science Citation Index; SCIE: Science Citation Index Expanded; Emerging Sources Citation Index (ESCI)

SCI/SCIE Journals: 132; ESCI: 5; SCOPUS only: 4; Others: 14; Total = 155

Book Proposals Reviewed for the following Publishers:

1. Universities Press (India), Hyderabad
2. McGraw-Hill Education (India), Noida

National Mission Project on Education through ICT, MHRD, Government of India:

Reviewer to “Fluid and Particle Mechanics” subject, under the program of “Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning”, A National Mission Project on Education through ICT, MHRD, Government of India, anchored by Indian Institute of Technology, Kharagpur.

Principal Course Developer of “Mechanical Operations” core subject (2016): National Mission Project on Education through ICT, MHRD, Government of India. (Co-Developers: Dr. V.N. Lad & Dr. C.M. Patel)

Scientific Committee Member: The 3rd International Conference on Engineering for Waste Valorisation (WasteEng10), May 17-19, 2010, Beijing, China.

Scientific Committee Member: The 4th International Conference on Engineering for Waste Valorisation (WasteEng12), September 10-13, 2012, Porto, Portugal.

Scientific Committee Member: The 5th International Conference on Engineering for Waste Valorisation (WasteEng2014), August 25-28, 2014, Rio de Janeiro, Brazil.

High Value Project Proposals Reviewed for:

- i) AICTE, New Delhi
- ii) Indo French Centre for the Promotion of Advanced Research (CEFIPRA)
- iii) Ministry of Science and Technology, ISRAEL.

PUBLICATIONS AND PRESENTATIONS

PAPERS PUBLISHED/ACCEPTED FOR PUBLICATION IN SCIENCE CITATION INDEX (SCI) / SCIENCE CITATION INDEX EXPANDED (SCIE) JOURNALS: 165

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1. **Z.V.P. Murthy** and Sharad K. Gupta*, Simple graphical method to estimate membrane transport parameters and mass transfer coefficient in a membrane cell. *Separation Science and Technology*, Vol.31(No.1)(1996)77-94. DOI: 10.1080/01496399608000682 (Taylor & Francis Group Publication, USA) (Impact Factor: 0.737)

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3. **Z.V.P. Murthy** and Sharad K. Gupta*, Thin film composite polyamide membrane parameters estimation for the phenol-water system by reverse osmosis. *Separation Science and Technology*, Vol.33(No.16)(1998)2541-2557. DOI: 10.1080/01496399808545318 (Taylor & Francis Group Publication, USA) (Impact Factor: 0.695)

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5. Samir Y. Vaidya, Amit V. Simaria, and **Z.V.P. Murthy***, Reverse osmosis transport models evaluation: a new approach. *Indian Journal of Chemical Technology*, Vol.8(No.5)(September2001)335-343. (National Institute of Science Communication and Information Resources (NISCAIR), CSIR, India) (Impact Factor: 0.197)

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6. Nipun Lamba, **Z.V.P. Murthy**, and Raj Kumar*, Membrane processing of an aqueous waste stream from catalyst manufacturing plant. *Separation Science and Technology*, Vol.37(No.1) (2002)191-202. DOI: 10.1081/SS-120000328 (Taylor & Francis Group Publication, USA) (Impact Factor: 0.862)

2004

7. **Z.V.P. Murthy*** and M.M. Vora, Prediction of reverse osmosis performance using artificial neural network. *Indian Journal of Chemical Technology*, Vol.11(No.1)(January2004)108-115. (National Institute of Science Communication and Information Resources (NISCAIR), CSIR, India) (Impact Factor: 0.235)

8. **Z.V.P. Murthy***, Gautam Kaushik and Ritesh Suratwala, Treatment of oily water with human hair as a medium: a preliminary study. *Indian Journal of Chemical Technology*, Vol.11(No.2) (March2004)220-226. (National Institute of Science Communication and Information Resources (NISCAIR), CSIR, India) (Impact Factor: 0.235)

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9. Mousumi Chakraborty*, **Z.V.P. Murthy**, Chiranjib Bhattacharya, and Siddhartha Datta, Process intensification: extraction of chromium(VI) by emulsion liquid membrane. *Separation Science and Technology*, Vol.40(No.11)(2005)2353-2364. DOI: 10.1080/01496390500202555 (Taylor & Francis Group Publication, USA) (Impact Factor: 0.834)

2006

10. M.T. Dhotre*, **Z.V.P. Murthy**, and N.S. Jayakumar, Modeling & dynamic studies of heat transfer cooling of liquid in half-coil jackets. *Chemical Engineering Journal*, Vol.118(No.3) (2006)183-188. DOI: 10.1016/j.cej.2006.02.008 (Elsevier Scientific Publication, USA) (Impact Factor: 1.594)
11. **Z.V.P. Murthy*** and Jiju Cherian Vengal, Optimization of a reverse osmosis system using genetic algorithm. *Separation Science and Technology*, Vol.41(No.4)(2006)647-663. DOI: 10.1080/01496390500526854 (Taylor & Francis Group Publication, USA) (Impact Factor: 0.824)

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12. John U. Kennedy Oubagaranadin, N. Sathyamurthy, and **Z.V.P. Murthy***, Evaluation of Fuller's earth for the adsorption of mercury from aqueous solutions: A comparative study with activated carbon. *Journal of Hazardous Materials*, Vol.142(No.1-2)(2007)165-174. DOI: 10.1016/j.jhazmat.2006.08.001 (Elsevier Scientific Publication, USA) (Impact Factor: 2.337)
13. **Z.V.P. Murthy***, C. Nancy, and Akash Kant, Separation of pollutants from restaurant wastewater by electrocoagulation. *Separation Science and Technology*, Vol.42(No.4) (2007)819-833. DOI: 10.1080/01496390601120557 (Taylor & Francis Group Publication, USA) (Impact Factor: 1.048)
14. **Z.V.P. Murthy*** and Dhruv Joshi, Fluidized bed drying of aonla (*Emblica officinalis*). *Drying Technology*, Vol.25(No.5)(2007)883-889. DOI: 10.1080/07373930701370290 (Taylor & Francis Group Publication, USA) (Impact Factor: 1.171)
15. Shaik Basha and **Z.V.P. Murthy***, Kinetic and equilibrium models for biosorption of Cr(VI) on chemically modified seaweed, *Cystoseira indica*. *Process Biochemistry*, Vol.42(No.11)(2007) 1521-1529. DOI: 10.1016/j.procbio.2007.08.004 (Elsevier Scientific Publication, UK) (Impact Factor: 2.336)

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17. **Z.V.P. Murthy*** and Latesh B. Chaudhari, Separation of cadmium ions and estimation of membrane transport parameters of a nanofiltration membrane. *Indian Journal of Chemical Technology*, Vol.15(No.2)(March2008)107-112. (National Institute of Science Communication and Information Resources (NISCAIR), CSIR, India) (Impact Factor: 0.353).
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- 480-488. DOI: 10.1016/j.cej.2007.04.038 (Elsevier Scientific Publication, USA) (Impact Factor: 2.813)
19. Shaik Basha, **Z.V.P. Murthy***, and B. Jha, Isotherm modeling for biosorption of Cu(II) and Ni(II) from wastewater onto brown seaweed, *Cystoseira indica*. ***AIChE Journal***, Vol.54(No.12) (2008)3291-3302. DOI: 10.1002/aic.11606 (Wiley-Blackwell, USA; American Institute of Chemical Engineers, USA) (Impact Factor: 1.883)
 20. **Z.V.P. Murthy*** and Latesh B. Chaudhari, Application of nanofiltration for the rejection of nickel ions from aqueous solutions and estimation of membrane transport parameters. ***Journal of Hazardous Materials***, Vol.160(No.1)(2008)70-77. DOI:10.1016/j.jhazmat.2008.02.085 (Elsevier Scientific Publication, USA) (Impact Factor: 2.975)
 21. Alka G. Boricha and **Z.V.P. Murthy***, Preparation and performance of *N,O*-carboxymethyl chitosan-polyether sulfone composite nanofiltration membrane in the separation of nickel ions from aqueous solutions. ***Journal of Applied Polymer Science***, Vol.110(No.6)(2008)3596-3605. DOI: 10.1002/app.28970 (Wiley-Blackwell, USA) (Impact Factor: 1.187)
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26. John U. Kennedy Oubagaranadin and **Z.V.P. Murthy***, Removal of Pb(II) from aqueous solutions by carbons prepared from Sal wood (*Shorea robusta*). ***European Journal of Wood and Wood Products***, Vol.67(No.2)(2009)197-206. DOI: 10.1007/s00107-009-0315-3 (Springer, USA) (Impact Factor: 0.838)
27. **Z.V.P. Murthy*** and Latesh B. Chaudhari, Treatment of distillery spent wash by combined UF and RO processes. ***Global NEST Journal***, Vol.11(No.2)(2009)235-240. (University of the Aegean, Greece) (Impact Factor: 0.565)
28. **Z.V.P. Murthy*** and Latesh B. Chaudhari, Separation of binary heavy metals from aqueous solutions by nanofiltration and characterization of the membrane using Spiegler-Kedem model. ***Chemical Engineering Journal***, Vol.150(No.1)(2009)181-187. DOI: 10.1016/j.cej.2008.12.023 (Elsevier Scientific Publication, USA) (Impact Factor: 2.816)
29. S.R. Patel and **Z.V.P. Murthy***, Ultrasound assisted crystallization for the recovery of lactose in an anti-solvent acetone. ***Crystal Research and Technology***, Vol.44(No.8)(2009)889-896. DOI: 10.1002/crat.200900227 (Wiley-Blackwell, USA) (Impact Factor: 0.896)
30. Alka G. Boricha and **Z.V.P. Murthy***, Acrylonitrile butadiene styrene/chitosan blend membranes: Preparation, characterization and performance in the separation of metal ions. ***Journal of Membrane Science***, Vol.339(No.1-2)(2009)239-249. DOI: 10.1016/j.memsci.2009.04.057 (Elsevier Scientific Publication, USA) (Impact Factor: 3.203)
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34. P.J. Gandhi and **Z.V.P. Murthy***, Kinetic study of ultrasonic antisolvent crystallization of sirolimus. *Crystal Research and Technology*, Vol.45(No.3)(2010)321-327. DOI: 10.1002/crat.200900717 (Wiley-Blackwell, USA) (Impact Factor: 0.946)
35. Swati Sharma, Mausumi Mukhopadhyay, and **Z.V.P. Murthy***, Degradation of 4-chlorophenol in wastewater by organic oxidants. *Industrial & Engineering Chemistry Research*, Vol.49(No.7)(2010)3094-3098. DOI: 10.1021/ie9018066 (American Chemical Society Publication, USA) (Impact Factor: 2.071)
36. Jignasa N. Solanki and **Z.V.P. Murthy***, Highly monodisperse and sub-nano silver particles synthesis via microemulsion technique. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Vol.359(No.1-3)(2010)31-38. DOI: 10.1016/j.colsurfa.2010.01.058 (Elsevier Scientific Publication, The Netherlands) (Impact Factor: 2.130)
37. Latesh B. Chaudhari and **Z.V.P. Murthy***, Treatment of landfill leachates by nanofiltration. *Journal of Environmental Management*, Vol.91(No.5)(2010)1209-1217. DOI: 10.1016/j.jenvman.2010.01.007 (Elsevier Scientific Publication, UK) (Impact Factor: 2.596)
38. S.R. Patel and **Z.V.P. Murthy***, Optimization of process parameters by Taguchi method in the recovery of lactose from whey using sonocrystallization. *Crystal Research and Technology*, Vol.45(No.7)(2010)747-752. DOI: 10.1002/crat.201000139 (Wiley-Blackwell, USA) (Impact Factor: 0.946)
39. Latesh B. Chaudhari and **Z.V.P. Murthy***, Separation of Cd and Ni from multicomponent aqueous solutions by nanofiltration and characterization of membrane using IT model. *Journal of Hazardous Materials*, Vol.180(No.1-3)(2010)309-315. DOI: 10.1016/j.jhazmat.2010.04.032 (Elsevier Scientific Publication, USA) (Impact Factor: 3.723)
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4. **Z.V.P. Murthy** and S.K. Gupta, Separation of Hazardous Chemicals using Thin-film Composite Polyamide Membrane by Reverse Osmosis. Presented at Indian Membrane Society - XIV National Symposium on Membranes in Chemical and Biochemical Industries, held at Indian Institute of Technology, Delhi, New Delhi, February 16- 17, 1996.
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46. Snehal Kumar R. Parmar and **Z.V.P. Murthy**, Removal of Mercury from Wastewater by Electrocoagulation, Presented at the National Conference on "Water: Membranes & Other Purification Technologies", January 9-10, 2010, Organized by Indian Membrane Society and Indian Water Works Association, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat. (OP 14)

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53. Harshal A. Gulhane and **Z.V.P. Murthy**, Synthesis and Characterization of Poly(Vinyl Alcohol) / Graphene Composite Membrane, Presented at the Sixth DAE-BRNS Biennial Symposium on “Emerging Trends in Separation Science and Technology (SESTEC-2014), February 25-28, 2014, Organized by Board of Research in Nuclear Sciences (BRNS) and Department of Atomic Energy (DAE), at Bhabha Atomic Research Centre (BARC), Mumbai. (MST-11)
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56. Smitha Rajesh and Z.V.P. Murthy, Characterization of Antioxidant Incorporated Polymeric Blend Membrane through *In Situ* Incorporation along with Surface Modification, Presented at the **DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology** (SESTEC-2016), held at Indian Institute of Technology Guwahati (IITG), Guwahati, during May 17-20, 2016. (SSRM-5; page 5)
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58. Jibin Babu and Z.V.P. Murthy, Application of Thin-film Nanocomposite (PES/PVA/SnO₂) Membranes in Dye Separation, Presented at the **DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology** (SESTEC-2016), held at Indian Institute of Technology Guwahati (IITG), Guwahati, during May 17-20, 2016. (MST-6; Page 163)
59. Nishtha Rathore & Z.V.P. Murthy, Pervaporation of Different Systems - An overview of latest literature, Presented at the **NSST 2016: 2nd National Symposium on Advances in Separation and Purification Science & Technology**, held at G.H. Patel College of Technology and Engineering, Vallabh Vidyanagar, Gujarat, during September 23-24, 2016. (Paper No. SST-39; Page 58)
60. Z.V.P. Murthy, Membrane Separation Processes: Remediation of metals containing wastewaters. Presented at the National Conference on “Recent Trends on Membranes & Separation Technology” (RTMST-17), Organized by CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar, November 22-23, 2017. (IL-10. Page 36)
61. Ashwin R. Kamble, Chetan M. Patel and Z.V.P. Murthy, Modification of PVDF membrane by two dimensional inorganic additive for improving gas permeation. Presented at the National Conference on “Recent Trends on Membranes & Separation Technology” (RTMST-17), Organized by CSIR-Central Salt and Marine Chemicals Research

Institute, Bhavnagar, November 22-23, 2017. (PO-42-MEM. Page 85) **(Received Consolation Prize for Poster Presentation.)**

62. Nikhil R. Mene, Z.V.P. Murthy, Recovery of pure water and crystalline products from concentrated brine by using membrane distillation crystallization. Presented at the National Conference on “Recent Trends on Membranes & Separation Technology” (RTMST-17), Organized by CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar, November 22-23, 2017. (PO-44-MEM. Page 87)

63. Saurabh C. Singh, Shashank Wankhade, Kuldeep Mamtani, Z.V.P. Murthy, Modified UF membranes for hemicellulose separation. Presented at the DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC-2018), held at BITS-Pilani, Goa, during May 23-26, 2018. (MST-9, page 83)

64. Ashwin R. Kamble, Chetan M. Patel and Z.V.P. Murthy, Effects of inorganic additive of two-dimensional hexagonal boron nitride on the gas separation/permeation for PVDF derived membranes. Presented at the DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC-2018), held at BITS-Pilani, Goa, during May 23-26, 2018. (MST-31, page 105) **[Received the Best Oral Paper Presentation Award]**

Appendix-VI

MEMBERSHIPS IN PROFESSIONAL BODIES

Member (M) / Life Member (LM) / Life Fellow (LF) of the Following Bodies:

1. American Chemical Society (ACS) M. [since 2011]
2. American Nano Society (ANS), M. [since 2011]
3. Catalysis Society of India (CatSI), LM. [since 2001]
4. Computer Society of India (CSI), LM. [since 2001]
5. Electrochemical Society of India (ECSI), LF. [since 2001]
6. Indian Desalination Association (InDA), LM. [since 2001]
7. Indian Institute of Chemical Engineers (IChE), LM. [since 1993]
8. Indian Institute of Metals (IIM), LM. [since 2001]
9. Indian Membrane Society (IMS), LM. [since 1996]
10. Indian Society for Technical Education (ISTE), LM. [since 1992]
11. Indian Water Works Association (IWWA), LM. [since 2007]
12. Institution of Engineers (India) (IE(I)), M. [since 1997]
13. International Conference on Chemistry and Environment (ICCE), .LF. [since 2011]
14. Journal of Environmental Research and Development (JERAD), LF. [since 2011]
15. Society for Advancement of Electrochemical Science and Technology (SAEST), LF. [2000]
16. Systems Society of India (SSI), LM. [since 1992]
17. SVP School, run by S.V. National Institute of Technology, Surat, Gujarat, Life Trustee [since 2004]
18. Association of Separation Scientists and Technologists (ASSET), LM. [since 2014]
19. Academic Member, Athens Institute for Education and Research (ATINER), Athens, Greece [6/3/2015]