

## **Dr. Jignesh H. Trivedi**

**Designation :** Assistant Professor (Senior Scale)

**Specialization :** Industrial Polymer Chemistry

### **Address :**

#### **Office**

Lab # 223, Post Graduate Department of Chemistry, Vallabh Vidyanagar-388120, Gujarat State

#### **Residence:**

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#### **Other Details:**

**Date of Birth:** 02/07/1975

**Educational Qualifications:** M.Sc., Ph.D.

**Academic Experience:** 10 Years

#### **Research Area:**

Synthesis, Characterization and Evaluation of Potential Applications of Graft Copolymers of Natural and Renewable Polymeric materials and its derivatives.

#### **Expertise:**

Modification of Natural Polymers and its Potential Applications

**No. of publications:** 17 (International) + 3 (National)

#### **List of Publications:**

##### **(A) List of Research Papers:**

##### **I) Research Papers Published:**

1. Modification of Sodium salt of Partially Carboxymethylated Guar Gum by Graft Copolymerization with Methyl Acrylate Jignesh H. Trivedi, K. Kalia, N. K. Patel and H. C. Trived Polymers and Polymer Composites, 13 (3), 301-312 (2005)
2. Ceric-Induced Grafting of Acrylonitrile onto Sodium salt of Partially Carboxymethylated Guar Gum J.H. Trivedi, K. Kalia, N.K. Patel and H.C. Trivedi Carbohydrate Polymers, 60 (1), 117-125 (2005)

3. Graft Copolymerization of Sodium salt of Partially Carboxymethylated Guar Gum with Methyl Methacrylate : An Examination of Reaction Variables J.H. Trivedi, K.Kalia, N.K. Patel and H.C. Trivedi *Journal of Applied Polymer Science*, 96 (5), 1855-1864 (2005)
4. Grafting of Vinyl monomers onto Sodium salt of Partially Carboxymethylated Guar Gum : Comparison of their Reactivity J. H. Trivedi, K. Kalia, N.K. Patel and H.C. Trivedi *Polymer - Plastics Technology and Engineering*, 44(3), 407-425 (2005)
5. Ceric-induced Grafting of Vinyl monomers onto Sodium salt of Partially Carboxymethylated Guar Gum : Effects of Substrate structure and Liquor Ratio J.H. Trivedi, K. Kalia, N.K. Patel and H.C. Trivedi *Journal of Pure & Applied Sciences – “PRAJNA”*, 13, 44-55 (2005)
6. Grafting of Ethyl Methacrylate onto Sodium salt of Partially Carboxymethylated Guar Gum by Tetravalent Cerium Ion J. H. Trivedi, T.A. Bhatt, K. Kalia, N.K. Patel and H. C. Trivedi *Journal of Polymer Materials*, 25 (4), 541-555 (2008)
7. Photo-Induced Graft Copolymerization of Methyl Acrylate onto Sodium Salt of Partially Carboxymethylated Psyllium J. H. Trivedi, A. B. Dholakia, K. H. Patel and H.C. Trivedi *Trends in Carbohydrate Research*, 1(2), 38-46 (2009)
8. Graft Copolymerization of Glycidyl Methacrylate onto Sodium salt of Partially Carboxymethylated Guar Gum: Synthesis and Characterization J. H. Trivedi, T.A. Bhatt, and H. C. Trivedi *Trends in Carbohydrate Research*, 3(4), 35-41 (2011)
9. Grafting of Butyl Acrylate onto Sodium salt of Partially Carboxymethylated Guar Gum Using Ceric Ions J. H. Trivedi, T.A. Bhatt and H. C. Trivedi *Journal of Pure & Applied Sciences – “PRAJNA”*, 19, 25-31 (2011) Encl.-I - Dr. J. H. Trivedi 2
10. UV-Radiation induced graft copolymerization of methyl methacrylate onto Sodium salt of Partially Carboxymethylated Psyllium Amit Dholakia, Jayesh Jivani, Jignesh Trivedi, Kirit Patel and Harikrishna Trivedi *Journal of Applied Polymer Science*, 124, 4945-4952 (2012)
11. Synthesis, Characterization and Swelling Behaviour of Super Absorbent Hydrogel from Sodium salt of Partially Carboxymethylated Guar Gum-g-PAN J. H. Trivedi, J.R. Jivani, U.S. Shah, N. K. Patel and H.C. Trivedi *Journal of Pure & Applied Sciences – “PRAJNA”*, 20, 59-66 (2012)
12. Synthesis, Characterization and Swelling Behaviour of Superabsorbent Hydrogel from Sodium salt of Partially Carboxymethylated Tamarind Kernel Powder-g-PA J. H. Trivedi *Journal of Applied Polymer Science*, 129(4), 1992-2003 (2013)
13. Modification of Sodium salt of Partially Carboxymethylated Tamarind Kernel Powder with Acrylonitrile : Synthesis, Characterization and Swelling Behaviour J. H. Trivedi, J. R. Jivani, K.H. Patel and H.C. Trivedi *Chinese Journal of Polymer Science*, 31(12), 1670-1684 (2013)
14. Synthesis and Characterization of Poly(butyl methacrylate) grafted Sodium salt of Partially Carboxymethylated Guar Gum Jignesh H. Trivedi, T A Bhatt, H C Trivedi *Cellulose Chemistry and Technology*, 48 (5-6), 503-514 (2014)
15. Photo-Induced Graft Copolymerization of Acrylonitrile onto Sodium salt of Partially Carboxymethylated Guar Gum J. H. Trivedi, M. D. Thaker and H. C. Trivedi\ *Journal of Applied Polymer Science*, 132(5), 1-10 (2015)
16. Photo-Induced Synthesis and Characterization of Poly (methyl methacrylate) grafted sodium salt of Partially Carboxymethylated Guar Gum J. H. Trivedi, M. D. Thaker and H. C. Trivedi *Chinese Journal of Polymer Science*, 32(12), 1690-1703 (2014)

17. Photo-Induced Synthesis and Characterization of Poly(Methyl Acrylate) Grafted Sodium Salt of Partially Carboxymethylated Sodium Alginate J. H. Trivedi, A.V. Chourasia and H. C. Trivedi Cellulose Chemistry and Technology, 49(1), 7-19 (2015)
18. Graft Copolymerization of Ethyl acrylate onto Sodium salt of Partially Carboxymethylated Sodium Alginate: Optimal Reaction Variables and Characterization Jignesh H. Trivedi, Mitesh K. Prajapati International Journal of Research in Engineering and Applied Sciences, 5(5), 107-117 (2015)
19. Photo-Induced Sodium salt of Partially Carboxymethylated Psyllium-gPolyacrylonitrile: I. Synthesis and Characterization Jignesh H. Trivedi, Wu Min, Young Huang and Harikrishna C. Trivedi International Journal of Scientific and Research Publications, 5(5), 1-10 (2015) 3
20. Photo-induced Sodium salt of Partially Carboxymethylated Psyllium-g- Polyacrylonitrile: II. Synthesis, Characterization and Swelling Behaviour of its Superabsorbent Hydrogel Jignesh H. Trivedi, Wu Min, Young Huang and Harikrishna C. Trivedi International Journal of Scientific and Research Publications, 5(5), 1-10 (2015)

## II. List of Research Papers Communicated

1. Carboxymethyl Sodium Alginate: Synthesis and Characterization Jignesh H. Trivedi and Mitesh K. Prajapati Journal of Pure & Applied Sciences – “PRAJNA” (2015)
2. Optimization of ceric ammonium nitrate initiated graft copolymerization of acrylonitrile onto sodium salt of partially carboxymethylated sodium alginate Jignesh. H. Trivedi and Mitesh. K. Prajapati Starch/Starke (2016)

**No. of Ph.D. Student Guided:** 01 + 01 (Synopsis Submitted)

**No. of Major projects carried out:**

Name of the Funding Agency	Project Title	Amount	Year	Status
University Grants Commission, New Delhi	Studies in Potential Graft Copolymers of Sodium salt of Partially Carboxymethylated Tamarind Kernel Powder	Rs. 2,68,000/-	2007-10	Completed
Ministry of Earth Sciences, New Delhi	Studies in Potential Graft Copolymers of an industrially important marine Polysaccharide - Sodium salt of Partially Carboxymethylated Sodium Alginate	Rs.10,17,750/-	2008-11	Completed
University Grants Commission, New Delhi	Photo-Induced Synthesis, Characterization and Potential Applications of Sodium salt of Partially Carboxymethylated Sodium Alginate	Rs.11,22,500/-	2011-14	Completed

## Honors:

- Name has been included in 32nd Edition of Marquis Who's Who in the world 2015
- Name has been included in 33rd Edition of Marquis Who's Who in the world 2016

- Name has been included in Thirty Eight Edition of Dictionary of International Biography, 2016
- Executive Council Member of Association of Carbohydrate Chemists and Technologists (ACCT) India for the year 2009-10
- Life member of Association of Carbohydrate Chemists and Technologists (ACCT), India, Asian Polymer Association, Society of Polymer Science, Him Science Congress Association
- Annual Member of Polymer Processing Academy (2013-14)
- Member – Board of Studies of Industrial Chemistry (2012-15, 2015-2018) and Board of Studies of Chemistry (2014-17)

### **Highlights of achievements**

- Recipient of Project Fellowship in the University Grants Commission (UGC, New Delhi) Major Research Project entitled “Graft Copolymers of Sodium salt of Partially Carboxymethylated Guar Gum : Synthesis, Characterization and Potential Applications” – from 22nd April, 2002 to 21st April, 2005.
- Had Worked as a R & D Officer at the Polymer Division of PI Industries (Pesticides India) Ltd., Panoli, Gujarat State since May 2005 to June 2006.
- Recipient of Prof. Dr. K.A. Thaker Sixtieth Birthday Celebration Prize for the year 1998-99, for obtaining highest marks at M.Sc. (Previous) External University Examination amongst all the Industrial Polymer Chemistry Students.
- Recipient of “Hari Ohm Ashram Prerit Bhaikaka Inter-University Smarak Trust” award for the best research paper entitled “Modification of Sodium salt of Partially Carboxymethylated Guar Gum by Graft copolymerization with Methyl Acrylate” in Chemistry for the year 2006-2007.
- Recipient of “Hari Ohm Ashram Prerit Bhaikaka Inter-University Smarak Trust” award for the best research paper entitled “Ceric-Induced Grafting of Acrylonitrile onto Sodium salt of Partially Carboxymethylated Guar Gum” in Industrial Polymer Chemistry for the year 2006-2007.