

Department of Chemistry

Name	Dr. Dharmesh Chejara
Address	Behind Mukund Company Navrang Society Post-Atul Valsad - 396020 Gujarat, India
Designation and Current Position	Assistant Professor
Email	dharmesh.chejara@utu.ac.in
Qualification	M.Sc., Ph.D. (Chemistry)
Area of interest	<ul style="list-style-type: none">• Synthesis and characterization of biodegradable polymer based materials for tailor-made applications.• Polysaccharide chemistry, hydrogels, natural products, rheological studies of gelling systems, hydrocolloids.
Teaching/Research Experience	9 years
Current Position	Assistant Professor
Achievements	<ul style="list-style-type: none">• Awarded URC Postdoctoral fellowship (2014-2016) from University of Witwatersrand, Johannesburg, South Africa.• Research project undertaken: Smart gels for biomedical applications• Selection as a project assistant at CSIR-CSMCRI, Bhavnagar, India in the project funded by MoES (Ministry of earth science, New Delhi, India).
List of Publications	
Patents	
1. Ramavtar Meena, P K Ghosh, Dharmesh R Chejara , K Eshwaran, A K Siddhanta, Kamalesh Prasad, J P Chaudhary Biodegradable hydrophobic composite materials and process for the preparation thereof, WO Patent , WO2014/057502A1, April 2014.	
2. Ramavtar Meena, P K Ghosh, Dharmesh R Chejara , K Eshwaran, A K Siddhanta, Kamalesh Prasad, J P Chaudhary Biodegradable hydrophobic composite materials and process for the preparation thereof, U.S. Patent , US2015/0274942A1, October, 2015.	
Research articles	
1. Mahesh U. Chhatbar, Ramavtar Meena, Kamalesh Prasad, Dharmesh R Chejara , A. K. Siddhanta, Microwave-induced facile synthesis of water-soluble fluorogenic alginic acid derivatives, Carbohydrate Research , 2011, 346, 527-533.	
2. Mahesh U. Chhatbar, Kamalesh Prasad,* Dharmesh R Chejara and A. K. Siddhanta*. Synthesis of sodium alginate based sprayable new soft gel system, Soft Matter , 2012, 8, 1837-1844.	

3. A. K. Siddhanta*, Sanjay Kumar, Gaurav K. Mehta, Mahesh U. Chhatbar, Mihir D. Oza, Naresh D. Sanandiya, **Dharmesh R Chejara**, Chirag B. Godiya and Stalin Kondaveeti. Cellulose Contents of Some Abundant Indian Seaweed Species, *Natural Product Communications*, 2013, 8 (4), 497-500.
4. **Dharmesh R Chejara**, Stalin Kondaveeti, Kamallesh Prasad* and A. K.Siddhanta*, Studies on the structure-property relationship of sodium alginate based thixotropic hydrogels, *RSC Advances*, 2013, 3, 15744-15751.
5. Stalin Kondaveeti, **Dharmesh R Chejara**, A. K.Siddhanta*, A facile one-pot synthesis of a fluorescent agarose-0-naphthylacetyl adducts with slow release properties, *Carbohydrate Polymers*, 2013, 98, 589- 595.
6. **Dharmesh R Chejara**, Stalin Kondaveeti, Ramavatar Meen, A. K. Siddhanta*. Antioxidant activity and phytochemical analysis of a few Indian seaweed species, *Ind. J. Geo. Mar. Sci.*, 2014, 43(4), 507-518.
7. Stalin Kondaveeti, **Dharmesh R Chejara**, A. K. Siddhanta*. Synthesis of self-assembly of agarose-fatty acid ester nanoparticles, *Ind. J. Chem. A*, 2014, 53A, 679-687.
8. **Dharmesh R Chejara**, Stalin Kondaveeti, A. K. Siddhanta*. Facile synthesis of new sodium alginate–anthracene based photosensitizers, *Polymer Bulletin*, 2015, 72, 35- 48.
9. Jai Prakash Chaudhary, **Dharmesh R Chejara**, Dipak Makwana, Kamallesh Prasad and Ramavatar Meena*. Agarose based multifunctional materials: Evaluation of thixotropy, self-healability and stretchability, *Carbohydrate Polymers*, 2014, 114, 306-311.
10. Jaiprakash Chaudhary, **Dharmesh R Chejara**, K. Eswaran, Ramavatar Meena*, Pushpito K. Ghosh*, Seaweed-derived polymeric materials for multiapplications including marine algal cultivation, *RSC Advances*, 2015, 5, 19426.
11. Ravindra V Badhe, Rabindra K Nanda, **Dharmesh R Chejara**, Yahya E Choonara, Pradeep Kumar, Lisa C du Toit and Viness Pillay*, Microwave-Assisted Facile Synthesis of a New Tri-Block Chitosan Conjugate with Improved Mucoadhesion, *Carbohydrate Polymers*, 2015, 130, 213-221.
12. Mostafa Mabrouk, **Dharmesh R Chejara**, Jameel A Mulla, Ravindra Badhe, Yahya E Choonara, Pradeep Kumar, Lisa C du Toit and Viness Pillay*, Design of a Novel Crosslinked HEC-PAA Porous Hydrogel Composite for Dissolution Rate and Solubility Enhancement of Efavirenz, *International Journal of Pharmaceutics*, 2015, 490, 429-437.
13. A. K. Siddhanta*, Naresh D. Sanandiya, **Dharmesh R Chejara**, Stalin Kondaveeti. Functional modification mediated value addition of seaweed polysaccharides-a perspective,

RSC Advances, 2015, 5, 59226.

14. **Dharmesh R Chejara**, Mostafa Mabrouk, Ravindra V Badhe Jameel A S Mulla, Pradeep Kumar, Yahya E Choonara, Lisa C du Toit and Viness Pillay*, A Bio-Injectable Algin-Aminocaproic Acid Thixogel with Tri-Stimuli Responsiveness, *Carbohydrate Polymers*, 2016, 135, 324–333

15. M Mabrouk, D Bijukumar, J A S Mulla, **D R Chejara**, R V Badhe, Y E Choonara, P Kumar, L C du Toit, V Pillay*, Enhancement of the biomineralization and cellular adhesivity of polycaprolactone-based hollow porous Microspheres via dopamine bio-activation for tissue engineering Applications, *Materials Letters*, 2015, 161, 503–507

16. Mostafa Mabrouk, Jameel A Mulla, Pradeep Kumar, **Dharmesh R Chejara**, Ravindra Badhe, Yahya E Choonara, Lisa C du Toit and Viness Pillay*, Intestinal Targeting of Ganciclovir Release Employing a Novel HEC-PAA Blended Lyomatrix, *AAPS PharmSciTech*, 2015,(DOI: 10.1208/s12249-015-0442-6).

17. Ravindra V. Badhe, Divya Bijukumar, **Dharmesh R. Chejara**, Mostafa Mabrouk, Yahya E. Choonara, Pradeep Kumar , Lisa C. du Toit , Pierre P.D. Kondiah, Viness Pillay, A composite chitosan-gelatin bi-layered, biomimetic macroporous scaffold for blood vessel tissue engineering, *Carbohydrate Polymers*, 2017 (DOI:10.1016/j.carbpol.2016.09.095).

18. **Dharmesh R. Chejara**, Mostafa Mabrouk , Pradeep Kumar , Yahya E. Choonara , Pierre P. D. Kondiah, Ravindra V. Badhe , Lisa C. du Toit , Divya Bijukumar and Viness Pillay Synthesis and Evaluation of a Sodium Alginate-4-Aminosalicylic Acid Based Microporous Hydrogel for Potential Viscosupplementation for Joint Injuries and Arthritis-Induced Conditions *Marine Drugs*, 2017, 1660-3397.

19. Jameel AS Mulla, Mostafa Mabrouk, Yahya E Choonara, Pradeep Kumar, **Dharmesh R Chejara**, Lisa C du Toit, Viness Pillay, Development of respirable rifampicin-loaded nanopomere composites by micro emulsion-spray drying for pulmonary delivery *Journal of Drug Delivery Science and Technology*, 2017, 1773-2247.

20. Ravindra V Badhe, Pradeep Kumar, Pradeep Kumar, Yahya E. Choonara, Yahya E. Choonara, Thashree Marimuthu Lisa du Toit, Divya Bijukumar, **Dharmesh Chejara**, Mostafa Mabrouk, Viness Pillay, Customized Peptide Biomaterial Synthesis via an Environment-Reliant Auto-Programmer Stigmergic Approach, *Materials*, 2018, 11(4), DOI: 10.3390/ma11040609.

21. Az-Zamakhshariy Zardad, Mostafa Mabrouk Thashree Marimuthu, Lisa du Toit, Pradeep Kumar, Yahya E. Choonara, Pierre P D Kondiah, Ravindra V Badhe, **Dharmesh Chejara**, Viness Pillay, Synthesis and biocompatibility of dual-responsive thermosonic injectable organogels based on crosslinked N -(isopropyl acrylamide) for tumour microenvironment targeting *Materials Science and Engineering C*, 2018, DOI: 10.1016/j.msec.2018.04.059

Seminar/ Conference

1. **Dharmesh R Chejara**, Mahesh U. Chhatbar, A. K. Siddhanta*. A facile carbodiimide-mediated aqueous phase synthesis of sodium alginate-aniline amide, Poster presentation in the *International Conference on Green Chemistry-2011* conference at Jaipur, India, December 7-9, 2011.
2. **Dharmesh R Chejara**, Alginate modified novel micro porous hydrogel system: A potential viscosupplementation for biomedical applications, Oral presentation in the *APSSA/SAAPI Joint Conference on Today's research for tomorrow's solutions*", at Johannesburg, South Africa, September 17-19, 2015.
3. **Dharmesh R Chejara***, Jignesh P. Raval, Hem N Naik, A novel process for extraction of guar protein isolate from guar meal, Oral presentation in the 54th *Annual Convention of Chemists 2017* at Uka Tarsadia University, Bardoli, December 23-25, 2018
4. **Dharmesh R Chejara***, Vinod Dwivedi, Yogesh Prajapati, Mitul Shah, A novel process for extraction of guar protein isolate from guar meal, poster presentation in the *XXXII GUJARAT SCIENCE CONGRESS - 2018* , CSIR-CSMCRI Bhavnagar & M K Bhavnagar University, February 4-5, 2018