

Department of Chemistry

Name	Dr. Dharmesh R. 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	8 years
Current Position	Assistant Professor
Achievements	<ul style="list-style-type: none">• Selection as a project assistant at CSIR-CSMCRI, Bhavnagar, India in the project funded by MoES (Ministry of earth science, New Delhi, India).• Awarded URC Postdoctoral fellowship (2014-2016) from University of Witwatersrand, Johannesburg, South Africa.

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, Kamalesh 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-O-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, Kamalesh 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).

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