

Resume



1. **Name** : MAHENDRA SAHEBRAO BORSE
2. **Father's Name** : SAHEBRAO SONU BORSE
3. **Department** : CHEMISTRY
4. **Designation & Grade Pay** : Assistant Professor, AGP- 7000/-
5. **Date and Place of Birth** : 01/06/1978, Amali(sakri)
6. **Sex** : Male
7. **Marital Status** : Married
8. **Nationality** : Indian
9. **Category (SC/ST/OBC)** : OBC
10. **Address for Correspondence** : 7-B, Tatiya Nagar, Perejpur Road, Sakri
11. **Permanent Address** : 7-B, Tatiya Nagar, Perejpur Road, Sakri
☎ Telephone (s) : 9923297811, 9403844071
E-mail Address : mahendraborse@yahoo.com

12. Academic Qualification / Research Degrees

Exam Passed	University	Subjects/ Titles	Year	Division/Grade/Merit etc.
B.Sc.	N.M.University, Jalgaon	Chemistry	1999	I st Class with Dist ⁿ
M.Sc.	N.M.University, Jalgaon	Organic Chemistry	2001	I st Class with Dist ⁿ
Ph.D.	The M.S. University of Baroda, Vadodara	Chemistry	2007	Awarded

13. Employment History :

S. No.	Position	Organization/Institution	Date of joining	Date of leaving	Duration
1.	Sr. Research Executive (API)	Sterling Biotech Research Center , Sterling Biotech Ltd, Masar, Vadodara. Gujarat, India.	Aug.2007	Nov. 2010	3.3 yr.
2.	Jr. Research Executive (API)	Dishman Pharmaceuticals & Chemicals Ltd., Ahemdabad, Gujarat, India.	Jan.2007	Aug. 2007	7 month
3.	Teaching Assistant	Department of Chemistry, Faculty of Science. The M. S. University of Baroda, Vadodara, Gujarat, India	Oct.2004	Jan. 2007	2.2 yr

14. Present Employment:

Designation	Assistant Professor
Institute/College	NAVODAYA SHIKSHANIK SANSTHA, DHULE'S UTTAMRAO PATIL ARTS AND SCIENCE COLLEGE, DAHIVEL-424304, TAL.- SAKRI, DIST.-DHULE (M.S.).
Date of joining (dd/mm/yyyy)	11/12/2010
AGP	7000/-

15. Period of teaching experience:

UG/PG	Name College/ University	Years
UG	Uttamrao Patil College of Art's & science Dahivel.	10 Years

16. Field of specialization under the subject/ Discipline :- Chemical Science

(a) Chemistry, (b) Surfactants, (c) Oil solubilisation, (d) Solution properties

17. Academic staff college orientation/Refresher/short term courses attended:

Name of the course	Place	Year	Duration	Sponsoring Agency
Orientation	A.S.C. Gujarat University, Ahemdabad	2013	Four week	UGC
Refresher Course	A.S.C. JMI. University, New Delhi.	2014	Three week	UGC
Refresher Course	HRDC, Goa University, Goa.	2017	Three week	HRDC

18. Research Contribution:

- **Research Interest** : Research interest includes ; synthesis of cationic Gemini surfactants, Solution properties of cationic surfactants, Microemulsion, Emulsion, liquid crystal, Nanoparticles & nano-templates, Application of surfactants as Corrosion inhibitor, as Antimicrobial agent, Oil recovery, Agrochemical Formulation, Synthesis of mesoporous materials.
- **Industrial Projects Completed:**
 - (a) Impurity profiling study of following Drug molecules by NMR, LCMS MS2, FTIR,etc. **Cyclobenzaprine. HCl, Repaglinide, Doxorubicin, Epirubicin, Daunorubicin, Montelukast sodium, Simvastatin ,Rousvastatin.**
 - (b) Polymorphism Study of following drugs by XRPD, Hyper DSC, Drift –FTIR. **Simvastatin, Rousvastatin, Montelukast sodium, Daunorubicin, Doxorubicin Epirubicin**
- **Research Project:-**
 - (1) UGC : **Minor Research Project** :- (completed- 2016),
Project Cost: - Rs. 70,000/- (Duration :- 2.0 Year)
 - (2) VCRMS : **Research Project** :- (Ongoing-2017) ,
Project Cost:- 1,00,000/- (Duration:-2.0 Year)

List of Publication :-

- 1) Small Angle Neutron Scattering and Viscosity Studies of Micelle Solution of Bis-cationic Surfactants Containing Methyl, Hydroxyethyl Quaternary Ammonium Head Groups.
Mahendra Borse, Vikas Sharma, V. K. Aswal, N. K. Pokhriyal, J.V. Joshi, P. S. Goyal, Surekha Devi , *Phy. Chem. Chem. Phys.*, 2004, 6, 3508-3514.
- 2) Dependence of aggregation behaviors and physicochemical properties of bis-cationic surfactant on the polarity of surfactant head group.
Mahendra Borse, Surekha Devi , *Colloids and Surface A:*, 2004, 245, 1-8.
- 3) Synthesis characterization and SANS studies of novel alkanediyl α,ω -bis(alkyl mono methylethanolammonium bromide) cationic dimeric surfactants.
Vikas Sharma, **Mahendra Borse**, V. K. Aswal, N. K. Pokhriyal, J.V. Joshi, P. S. Goyal, Surekha Devi, ***J. of Colloids and Interface Sci.***, 2004, 277, 450-455.
- 4) Effect of Head Group Polarity and Spacer Chain Length on the Aggregation Properties of Gemini Surfactants in an Aquatic Environment.
Mahendra Borse, Vikas Sharma, V. K. Aswal, N. K. Pokhriyal, J.V. Joshi, P. S. Goyal, Surekha Devi, *J. of Colloids Interface Sci.*, 2005, 284, 282-288.
- 5) Oil solubilisation capacity, liquid crystalline properties and anti -bacterial activity of alkanolamines based novel cationic surfactants .
Vikas Sharma , **Mahendra Borse** , Keyur Dave , Jayashree Pohnerkar Ashish Prajapati and Surekha Devi, ***J. of Dispersion Sci. and Tech.***, 2005, 26, 421.
- 6) Corrosion inhibition of iron in 1M HCL by some gemini surfactants in the series of aikanediyl- α,ω -bis-(monomethylethanolalkylammonium bromide)
Vikas Sharma, **Mahendra Borse**, Surekha Devi, ***Tenside Surf. Det.***, 2005, 42, 3.

- 7) Aggregation properties of mixed surfactant system of butane-1,4-bis(dodecyl hydroxyethylmethylammonium bromide) and its monomeric counter part.
Mahendra Borse, Vikas Sharma, V. K. Aswal, J.V. Joshi, P. S. Goyal, Surekha Devi
Colloids and Surface A: 2006, 287, 163.
- 8) Importance of head group polarity in controlling aggregation properties of cationic gemini surfactants (A Review)
Mahendra Borse, Surekha Devi, *Advances in Colloid & Interface Science*, 2006,123, 387-399.
- 9) Effect of sodium malate on aggregation behavior of butane-1,4-bis(dodecyl hydroxyethylmethylammonium bromide) and its monomeric counter part
Mahendra Borse, P. S. Goyal, Surekha Devi, *Colloids and Surface A*: 2007, 305,10.
- 10) Polyacrylic acid and polyacrylamide as cloud point modifier for Brij-30 in alcoholic aqueous solution
Anil D. Kakuste, **Mahendra S. Borse**, and G. H. Sonawane, *Journal of Dispersion Science and Technology*, **2017**, 38, (3) 334–338,
<http://dx.doi.org/10.1080/01932691.2016.1165115>,ISSN:0193-2691,Impact Factor:0.80.
- 11) Influence of malate counterion on physicochemical properties of butanediyl-1,4-bis(hexadecyl hydroxyethyl methyl ammonium bromide) surfactant **Mahendra S. Borse**, Dilip S. Patil and Anil D. Kakuste, *European Journal of Pharmaceutical and Medical Research*, **2016** (11),418-422, ISSN:2394-3211, SJIF Impact Factor:3.62.
- 12) Effect of Polyacrylic acid and polyacrylamide on clouding behavior of Triton-x-100 in aqueous medium,
Anil D. Kakuste, **Mahendra S. Borse**, and G.H. Sonawane, *Tenside surfactant and Detergent*, **2015**, 52(1),62-66, ISSN:0932-3414, Impact Factor:0.74.
- 13) Cloud point and thermodynamic properties of non-ionic surfactant Triton-x-100 in presence of various and inorganic salts.,
Anil D. Kakuste, **Mahendra S. Borse**, and G. H. Sonawane, *Journal of Chemical and Pharmaceutical Research*, **2015**,7(5),1193-1198,ISSN:0975-7384,Impact Factor:0.75.
- 14) Effect of tuned head polarity of cetyl trimethyl ammonium bromide on their physicochemical properties.
Sacin S. Borse, Tryambakrao J. Patil and **Mahendra S. Borse**, *Tenside surfactant and Detergent*, **2014**,51(3),267-273,ISSN:0932-3414, Impact Factor:0.74.
- 15) Role of aromatic bi-valent counterion on physicochemical properties of cetylhydroxyethyl dimethyl ammonium bromide surfactants.
Sacin S. Borse, Tryambakrao J. Patil and **Mahendra S. Borse**, *Journal of advanced in science and technology*, **2014**,14(2),59-65, ISSN: 0971-9563, Impact Factor:---.
- 16) Oil solubilization and aggregation behavior of CTAB surfactant and its derivatives by SANS.
Mahendra S. Borse, Sacin S. Borse, Tryambakrao J. Patil, *Chemical science transaction*, **2014**,3(4)1326-1333, ISSN:2278-3318, Impact Factor:0.61.
- 17) Comparative effect of cationic gemini surfactant and its monomeric counterpart on the conformational stability and activity of lysozyme
Taruna Sharma, Neeraj Dohare, Meena Kumari, Upendra kumar, **Mahendra S. Borse**, and Rajan Patela, *RSC Advances*, **2017**,7,pp-16763.DOI: 10.1039/c7ra00172j,IF:3.89.

- 18) Effect of cationic gemini surfactant and its monomeric counterpart on the conformational stability and esterase activity of human serum albumin, Mehraj ud din Parrray, Muzaffar Ul HassanMir, Neeraj Dohare, Neha Maurya, Abbul Bashar Khan, **Mahendra S. Borse**, Rajan Patel, *Journal of Molecular Liquid*, 2018,260,65-77.ISSN:0167-7322,Doi.org/10.1016/j.molliq.2018.03.070Pub.: Elsevier
- 19) Comparative effect of cationic gemini surfactant and its monomeric counterpart on the conformational stability of phospholipase A2 .
Mehraj ud din Parrray, Neha Maurya, Farooq Ahmad Wani, **Mahendra S. Borse**, Najmul Arfin, Maqsood Ahmad Malik, Rajan Patel, *Journal of Molecular Structure*,2019, 1175, 49-55 Doi.org/10.1016/j.molstruc.2018.07.078, Pub.: Elsevier.
- 20) Viscosity, Density and Ultrasonic velocity studies f Binary liquid solution of alcohols in nitrobenzene.
Sandeep R. patil , **Mahendra S. Borse** and Mahendra Sonwanne, *Journal of Research and Development*, vol. 8, issue 03,2018, 105-109. ISSN: 2230-9578, UGC Journal list no.: 64768
- 21) Role of surfactant as adjuvant in agriculture and agrochemical formulation.
Mahendra S. Borse, *Journal of Research and Development*,2018, vol.08,issue 03,164-169. ISSN: 2230-9578,ugc j.list no.:64768

• **List of Oral & Poster Presentations:**

- 1) **Poster Presentation**:- Novel Bis-cationic Surfactants and Applications as Corrosion inhibitor and Antimicrobial agents; Eleventh **National** Conference on Surfactant s, Emulsion, & Biocolloids at **IIT, Mumbai,(MS)** in Dec.11-13,2003.
- 2) **Poster Presentation** : - Mixed Gemini Surfactant system and SANS : **International** Conference at **BARC, Trombay, Mumbai (MS)**, in Jan 2-4th , 2004.
- 3) **Poster Presentation** :- RSC-West India Section Student Symposium 2006.; Effect of Bivalent counterion on aggregation behavior of Gemini surfactant. **The M. S. University of Baroda, Vadodara**, in 13-14 Oct. 2006.
- 4) **Oral Presentation** : - Effect of Head group polarity & spacer chain length on aggregation behavior of Gemini surfactants in an aquatic environment, **State level** conference on Emerging Trend in Chemistry & Chemical Research ,**Z. B. Patil Arts & Science College, Dhule**, Maharashtra, in 19-20th Feb. 2011.
- 5) **Oral Presentation** : - Role of surfactant as adjuvant in agriculture and agrochemical formulation, **National** conference on Recent trends in agricultural and rural development in india, at uttamrap Patil College Dahivel, Tal. Sakri.

• **Course work :**

- Completed **Basic XRPD training** Course from PANalytical, Almelo, Netherlands. June, 2008.
- Attended workshop/conference/symposium on surfactant, polymer, emulsion-microemulsion, bio-colloids, spectroscopy and applications.

• **Membership :**

- Membership of “Alumni Association of Chemistry Department, The M.S. University of Baroda, Gujarat, India.

• **Whether You are Research Guide: Yes/No**

:- Yes

- **Number of Students Registered/Guided for M. Phil /Ph.D.** :- 01

(M.S. Borse)