



**School of Chemistry, Sambalpur University**  
**Evaluative Report for the period 2010-11 to 2014-15**

1. **Name of the Department** : SCHOOL OF CHEMISTRY
2. **Year of establishment** : 1969
3. **Is the Department part of a School/Faculty of the university?:** Yes
4. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**  
M.Sc (Chemistry), M.Sc. (Applied Chemistry), M.Phil. (Chemistry), Ph.D. (Chemistry)
5. **Interdisciplinary courses and departments involved:** Yes
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : No
7. **Details of programmes / courses discontinued, if any, with reasons :**  
Not Applicable
8. **Annual/ Semester/Choice Based Credit System:** Semester
9. **Participation of the department in the courses offered by other departments:**  
Yes, The Chemistry Department is associated with the course curriculum of Food Science and Technology of the University
10. **Number of teaching posts sanctioned and filled (Professors/Reader/Lecturer)**

Designation	Sanctioned	Filled
Professor	02	00
Reader	03	02
Lecturer	08	07

11. **Faculty profile with name, qualification, designation and specialization (D.Sc./D.Litt./ Ph.D./M.Phil., etc.)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	Ph. D (Last 5 Yrs)
A.K. Panda	Ph. D	Professor	Inorganic Chem.	29	02
Mrs.P.K.Misra	Ph.D	Professor	Physical Chem.	27	04
P.K. Behera	Ph.D	Reader	Physical Chem.	19	03
A.K. Behera	Ph.D	Reader	Organic Chem.	28	04
A. Mahapatra	Ph.D	Reader	Inorganic Chem.	20	01
S.N. Sahu	Ph.D	Lecturer	Organic Chem.	4	—
B.N. Patra	Ph.D	Lecturer	Organic Chem.	7	—
N.K. Behera	Ph.D	Lecturer	Inorganic Chem.	4	—
R.N. Mahaling	Ph.D	Lecturer	Polymer Science	2	—
H. Chakravorty	Ph D	Asst.Prof(FRP)	Biophysical Chem.	1	
B.K. Mishra	Ph.D, D.Sc	BSR Faculty Fellow	Organic Chem.	34	14

**12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors:**

- Prof. C.S.Panda, Berhampur, Visiting Professor,
- Prof. M. K. Raval, Sambalpur, Visiting Professor,
- Prof. (Mrs) S. D. Bhattamishra, Berhampur, Visiting Professor,
- Prof N K Mohanty, Sambalpur, Visiting Professor,
- Prof B K Mishra, BSR-Faculty Fellow

**13. Percentage of classes taken by temporary faculty (programme-wise information):**  
5-10%**14. Programme-wise Student Teacher Ratio:**

PG: 9:1, M.Phil: 2:1, Ph.D: 2:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned and filled**

Designation of the Support staffs	Sanctioned strength	Filled status	Vacancy
Microanalyst	01	01	00
Demonstrator	05	00	05
Lab. Asst.	03	03	00
Class-III Staff:	01	01	00
Store Keeper	01	00	01
Class-IV Staff	08	03	05

**16. Research thrust areas recognized by funding agencies:**

- Synthetic Chemistry
- Surface Science
- Organometallics and Materials Science
- Photochemistry
- Biophysical Chemistry

**17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.****a. National**

Sl. No.	Name of the Project	Duration	Name of the Investigator	Funding Agencies	Amount (Rs. in lakhs)
1	Quaternary ammonium ferricyanide: A lipophilic reagent for oxidation of organic substrate in organic solvent	3 Years (2012 – Continuing)	Prof. B. K. Mishra	CSIR, India	13.2
2	Fundamental and applied aspects of developing green compounds and their mixtures as additive in coal water dispersion	3 Years (2011- Continuing)	Prof. (Mrs.) P. K. Misra	DST, New Delhi	17.00
3	Synthesis of Spiroheterocycles	2008-11	Dr.A.K.Behera	UGC, New Delhi	6.728

4	Behaviour of Novel Synthesized Azo Dyes----- Assembly	2007-10	Dr.P.K.Behera	UGC, New Delhi	6.031
5	Controlled radical polymerization of vinyl monomer using organometallic compounds in water medium	3 Years (2009-12)	Dr. B. N. Patra	DST, New Delhi	15.48
6	Syntheses, spectroscopic, electrochemical, and theoretical studies of triphenylamine based star-shaped molecules with donor- $\pi$ -conjugated-acceptor systems	3 Years (2012 –15 Continuing )	Dr. S. N. Sahu	DST, New Delhi	26.98
7	Dielectric polymer ceramic nanocomposites for capacitor application	3 Years for 2013-16	Dr. R. N. Mahaling	UGC, New Delhi	10.12

b. **International:** Nil

**18. Inter-institutional collaborative projects and grants received**

- a) **All India collaboration** : Nil  
 b) **International** : Nil

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received. (during last Five Years)**

- UGC-SAP under DRS II: 70 Lakh for Five Years (2008-2012).
- DST-FIST (Level - II): 220 Lakh for Five Years (2013-2018)

**20. Research facility / centre with**

- State recognition: Centre of Excellence by the Govt. of Odisha, 2012
- National recognition: DST-FIST and UGC-SAP Grant
- International recognition: Nil

**21. Special research laboratories sponsored by / created by industry or corporate bodies:**  
NIL

**22. Publications: Number of papers published in peer reviewed journals (national/international): 133 (From 2010-2015 As on July 31, 2015) Refer Annexure-I**

Year	Research Publications		Total Numbers
	National	International	
2010	2	8	10
2011	7	27	34
2012	14	19	33
2013	4	15	19
2014	3	21	24
2015	1	15	16
<b>Grand Total</b>			<b>136</b>

- \* Books/Monographs: **04**      Chapters in Books: **02**
- \* Edited Books: **05**              Books with ISBN with details of publishers: **Nil**
- \* Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): **Nil.**
- \* Citation Index – range / average: 0-940
- \* SNIP: --
- \* SJR: --
- \* Impact Factor – range 0.23-46.719 / average: **2.0**
- \* h-index : **24**

**23. Details of patents and income generated:**

One Indian patent has been filed on May 5, 2015 (No 494/KOL Dated 5.5.2015)

**24. Areas of consultancy and income generated:** Nil

**25. Faculty selected nationally/ internationally to visit other laboratories in India and abroad:**

Sl No.	Faculty name	Country visited	Purpose	Period of visit
1.	Prof.(Mrs.) P.K.Misra	Santiago, Chile	To attend international congress, IMPC-2014	October 20-30, 2014
2.	Dr. S. N. Sahu	Germany (University of Bielefeld)	BOYSCAST Fellow	Aug, 2010 for one year
3.	Dr. HIRAK Chakraborty	1.Max Planck Institute, Gottingen, Germany 2.University of North Carolina at Chapel Hill, USA	To attend International Conference  NIH Postdoctoral Fellowship	18-25, May, 2014  August, 2007- January, 2012

**26. Faculty serving in**

**a) National committees**

**b) International committees**

**c) Editorial Boards:** Editorial Board Member of J Nat. Prod. (Bentham Publication), Encyclopedia, Colloid and Surfaces, (Elsevier), and Managing Editor, Sambalpur University J. Sci Tech.

**d) any other (please specify):**

**27. Faculty recharging strategies:** Teachers are attending Refresher and Orientation Courses, workshops, seminars regularly.

**28. Student projects**

- percentage of students who have done in-house projects including inter-departmental projects: Nil
- percentage of students doing projects in collaboration with other universities / industry / institute: Eleven

**29. Awards / Recognitions received at the national and international level by**

- Faculty: SAMANTA CHANDRASEKHAR AWARD, BOYSCAST FELLOW, VSR GUPTA TEACHER OF THE YEAR-2012. ACS award.
- **Doctoral / post doctoral fellows:** Three
- **Students:** Best Poster Awards, Young Scientist Award:02

**30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.****(i) National Seminar**

Year	Date	Source of Funding
2007	RETICS, 23-25 March	DRS
	Noble Prize Seminar, 27 <sup>th</sup> August	Sambalpur University
2008	RETICS, 9-11 February, 2008	DST, CSIR
	Noble Prize Seminar, 22 <sup>nd</sup> September	Sambalpur University
2009	RETICS, 28-29 March, 2009	DST, CSIR, S.U.
	Noble Prize Seminar, 8 <sup>th</sup> February	Sambalpur University
	Workshop on Instrumentation and Statistical Methods in Scientific Research, 9-14 November	UGC Academic Staff College, S.U.
2011	Silver Jubilee Annual Conference & National Conference on "Molecule" 24 – 26 December	Sambalpur University
	Noble Prize Seminar, 23 <sup>rd</sup> March	Sambalpur University
2012	Extramural Research on GOD PARTICLE, 11 <sup>th</sup> July	Sambalpur University
	Noble Prize Seminar 17 <sup>th</sup> March	Sambalpur University
2013	National Conference RETICS-2013, 16-17 March	Sambalpur University
	Noble Prize Seminar 24 <sup>th</sup> August	UGC, DST, BRNS, S.U.
2014	National Conference on "Recent Trends In Chemical Sciences" (RETICS 2014), 14 <sup>th</sup> -15 <sup>th</sup> November 2014	Sambalpur University,
	Seminar on Nobel Prize, January 25, 2014	Sambalpur University
	UGC Sponsored Refresher Course in Chemistry. 3 <sup>rd</sup> – 23 <sup>rd</sup> July, 2014	UGC, New Delhi
2015	Seminar on Nobel Prize, 22 <sup>nd</sup> January 2015	Sambalpur University

**31. Code of ethics for research followed by the departments:**

Thesis are being checked for plagiarism using iThenticate and Turnitin software packages, and accordingly certified by the supervisor and Ph D students.

**32. Student Profile Programme Wise:**

Name of the Course (refer to Qno. 4)	Year	Applications received	Selected		Pass percentage (%)	
			Male	Female	Male	Female
M. Sc. (Chemistry)	2010-12	217	14	18	85	92
	2011-13	204	18	14	100	92
	2012-14	370	20	12	85	91
	2013-15	522			78	68
	2014-16	570	12	19	Continuing	
	2015-17	617			Recent Admn.	
M. Sc. (Appl. chem)	2012-14	--	06	04	50	50
	2013-15	15	02	08	--	--
	2014-16	20	08	01	--	--
	2015-17	23	01	05	--	--
M.Phil	2010	34	--	--	100	85
	2011	47	--	--	100	100
	2012	22	--	--	100	100
	2013	37	--	--	100	100
	2014	30	--	--	100	100
	2015	40	--	--	Result awaited	

**33. Diversity of students:**

Name of the Course (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from univ. outside the State	% of students from other countries
M. Sc	40-50	40-45	10-20	0
M. Phil	45-50	45-50	5-10	0
Ph.D.	45-50	45-50	0	0

**34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

CSIR (JRF): 04 (2010 - 2015)

NET: 36 (2010 - 2015)

GATE: 24 (2010 - 2015)

**35. Student progression:**

Student progression	Percentage against enrolled
UG to PG	NA
PG to M.Phil.	40
PG to Ph.D.	50

Student progression	Percentage against enrolled
Ph.D. to Post-Doctoral	Two
Employed	
• Campus selection	10-20%
• Other than campus recruitment	30%
Entrepreneurs	Nil

**36. Diversity of staff**

Percentage of faculty who are graduates	
of the same university	40%
from other universities within the State	50%
from universities from other States	10%
from universities outside the country	Nil

**37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:** Nil

**38. Present details of infrastructural facilities with regard to**

**a) Library:** Through INFLIBNET (UGC) we do receive journals of Elsevier, ACS, Springer, and other publications besides Chemistry Journals relevant to Physics, Life Sciences and Material Sciences. In the Dept. itself we are running one Library for students.

**b) Internet facilities for staff and students:**

School of Chemistry has a well furnished Central Computer center for students and research scholar, separately. The entire School building has well connected with network system and access to internet through e-Governance nodal center of the University.

**c) Total number of class rooms:** 03

**d) Class rooms with ICT facility:** 01

**e) Students laboratories:** 03

**f) Research laboratories:** 08

**g) Seminar Hall:** 01

**39. List of doctoral, post-doctoral students and Research Associates**

**a) from the host university:** 25 Doctoral and Post Doctoral students

**b) from other universities:** 02

**40. Number of PG students getting financial assistance from the university:** 40%

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Yes, through discussion among staff members.

**42. Does the department obtain feedback from**

**a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?:**

Yes, necessary modification on curriculum has been introduced at regular interval.

- b. **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes, on discussion in the Staff Council.

- c. **Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Yes, on discussion in the Staff Council

**43. List the distinguished alumni of the department (maximum 10):**

- Prof R K Mishra, Adjunct Research Professor,
- Bhabendra Pradhan Ph.D., Chief Technology Officer and Director, Nano Holdings LLC, Connecticut, USA
- Biswajit Pati, Ph.D., Vice President, Research and Development at Akorn Pharmaceutical Inc. Lake Forest, Illinois (Greater Chicago Area)
- Prof. A K Mishra, IIT Madras
- Prof. S N Nayak, IIT, Delhi
- Prof. D Chand, IIT, Madras
- Prof. B K Patel, IIT, Guwahati
- Dr. Rohit Rana, IICT, Hyderabad
- Dr Digambar Patra, Associate Prof, American University, Beirut
- Mr .Santosh Mishra, Oil India

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- a. Extramural talk on GOD PARTICLE, 11<sup>th</sup> July 2012
- b. Workshop on Instrumentation and Statistical Methods in Scientific Research, 9-14 November 2009
- c. Invited Seminars by Distinguished Professors/Scientists

**45. List the teaching methods adopted by the faculty for different programmes.**

- a. Class room Teaching
- b. Model based teaching
- c. PPT presentation
- d. Home Assignment
- e. Problem solving classes
- f. Remedial classes
- g. Laboratory based teaching

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- a. Students passed from this Department have joined as faculty members in leading institutions and universities such as IITs, NITs, BHU, state and central universities, engineering institutions in Odisha and outside the state and abroad. Passed out students from this Dept. also get placed in different organizations like DRDO, BARC, UGC, DST, IMMT, ONGC, IOC, Power Sector and many more research Laboratories.



b. Students have qualified national level entrance examination (GATE/NET) and joined different institutions for carrying out their M.Tech/Ph.D programme as follows: IIT Kharagpur, IIT Kanpur, IIT Mumbai, IIT Guwahati, NIT Rourkela, IIT Chennai, ISER Pune, IIT Bhubaneswar, IIT Delhi, IIT Roorkee, IOP, Bhubaneswar, NISER Bhubaneswar, CDRI Lucknow, etc.

**47. Highlight the participation of students and faculty in extension activities.**

Students are regularly participating in Cultural, Sports, Politics, Debate in languages etc.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

Organization of seminars, Workshops, Group discussions

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

No

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- The School of Chemistry, Sambalpur University is very much active in teaching and research both theoretical and experimental. The faculty members carry out their research work in various fields i.e., Synthetic Chemistry, Surface Chemistry, Organometallics and Materials Science, etc.
- More than 100 Ph.Ds and 300 M. Phil. degrees have been produced/awarded by this school. In about 300 research papers have been published in different reputed International and National Journals.
- The research work of the school has recognized in various fields at the National and International level. Many of the works of the faculty members of this Dept. was cited by various groups in India and abroad which are clearly revealed from the Citation Index and H-Index.
- In recognition of its excellence the School has been awarded financial grant under FIST programme during 2012-13 (220 lakh) by Department of Science and Technology, (DST) and also the grant of DRS-I under SAP by University Grant Commission (UGC) during 2012-2017 70 lakhs to strengthening the teaching and research of this department.
- School has collaboration in the research area with several leading Institutions/Universities of the Country including IISc, IIT'S, BARC, IMMT, NITs, etc.

**51. Future plans of the department.**

School of Chemistry is well equipped for basic research. After receiving the grant of 220 lakh for equipments, research and teaching, School is planning to strengthen in both theoretical and experimental research work by introducing new advanced topics in the field of Chemistry and Materials Science to make our School well-known with leading institute of India and abroad.

**52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

**Strength**

- We always believe to work as a team/group.
- Recognition of the department by various organizations like DST, UGC, BARC, DRDO, etc. in the form of granting special assistance and funds for quality research and teaching.
- Diverse field of specialized faculty members.
- Collaborations with reputed institutions and organizations.
- Regular in organizing Seminar/Workshop/Conferences and engaged in various extramural activities to encourage students as well as teachers of Odisha for teaching and research profession.

**Weakness**

- Shortage of teaching and non-teaching staffs.
- Teaching Labs are not fully equipped.
- Students are not exposed to Science/Chemistry as Sambalpur University is the one and only rural University of Odisha.
- Not well connected to outer periphery.
- Less aware of the strength of Education.

**Opportunities**

- Looking forward to become a part of multidisciplinary research project of National and International level.
- Special assistance for organizing seminar/workshop/short term course relating to Chemistry (medicinal/nano/technology/industrialization) can be taken up here with in-house expertise available in the department.

**Challenges**

- Placement opportunities for the students.
- To create awareness among the students to take up higher education and research.

## Annexure

## Publications of School of Chemistry (2010-15)

## 2010

- Das, Debaduttas, Dash, Uma, Nayak, Amalendu and Misra, Pramila K.(2010). Surface engineering of low rank Indian coals for better stabilization of coal-water slurry using starch based additives. *Energy and Fuels(ACS)*. 24, 1260-1268 International ISSN: 0887-0624 IMF: 2.79
- Dash Barsha, Tripathy, B., C., Bhatta-charya, I. N. and Mishra, B. K.(2010). Additive action on boehmite precipitation in sodium aluminate solution, *Dalton Trans.*, 39, 9108-11 International ISSN: 1477-9226 IMF: 4.197
- Mishra, M. R, Mishra, A., Pradhan, D.K., Panda, A. K., Behera, R K., Jha, S., Pradhan, A.R. (2010).. Anti-Inflammatory and Analgesic Activity of Capparis zeylanicaLinn. Natural Product an Indian Journal. 6 (3) ISSN:0974-5211IMF:0.513
- Mishra, Pramila K.\* , Panigrahi, Sagarika, Dash, Uma and Mandal, Asit Baran (2010).. Organization of amphiphiles, Part XI: Physico-Chemical aspects of mixed micellization involving normal conventional surfactants and a non-ionic gemini surfactant J.Collods and Interface Science. (*Elsevier*). 345, 392-401 International ISSN: 0021-9797 IMF: 3.368
- Patra, Braja N., Rayeroux, David, Lacroix-Desmazes, Patrick (2010). Synthesis of cationic amphiphilic diblock copolymers of poly(vinylben yl triethylammonium chloride) and polystyrene by reverse iodine transfer polymerization (RITP). *Rect. Funct. Polym*, 70, 408–413 International ISSN: 1381-5148 IMF: 2.513
- Sahoo, P. R., Sahu, S., Patel, S. and Mishra, B.K.(2010). Oxidation Kinetics of Aryl Thioureas by Cetyltrimethylammonium Dichromate. *Ind. J Chem,Sec.A*, 49(11), 1483-1487 National ISSN: 0376-4710 IMF: 0.851
- Sahu, S., Sahoo, P. Patel, S. and Mishra, (2010). Oxidation of arylthiourea by cetyltrimethylammonium dichromate. *Synth Commun*. 40 (21), 3268. International ISSN: 0039-7911IMF: 0.984

## 2011

- Das, A. Mahaling, R N. Stockelhuber, K.W. Heinrich, G. (2011). Reinforcement and Migration of Nanoclay in polychloroprene / ethylene-propylene-diene-monomer rubber blends. *Composite Science and Technology*, v 71 : pp 276 International 0266-3538 IMF: 3.569
- Dash, S., Panigrahi, M., Baliyarsingh, S., Behera, P. K., Patel, S. and Mishra, B. K.(2011). Cyanine Dyes - Nucleic Acids Interactions, *Current Organic Chemistry*, 15, 2673-2689. International 1385-2728 IMF: 2.157
- Dash, Uma and Misra. Pramila K. (2011). Organization of amphiphiles, Part XII: Evidences in favour of a hydrophobic complex formed in aqueous solution. *J. Colloids and Interface Science*. 357, 407-418 International 0021-9797 IMF: 3.368

- Haque M.E, Chakraborty H, Koklic T., Komatsu H., Axelson P.H., and Lentz B.R. (2011). *Hemagglutinin Fusion Peptide Mutants in Model Membranes: Structural Properties, Membrane Physical Properties and PEG-mediated Fusion. Biophys. J.*; 101:1095-1104 International ISSN: 0006-3495 IMF:3.97
- Kar, P. K., Panda, A. K., Behera, N. K., Das, P. K. and Panda, A. K.(2011). Evaluation of Schiff's Bases Synthesized from 2-Hydrazinobenzimidazole as Corrosion Inhibitor of Copper in H<sub>2</sub>SO<sub>4</sub>. *Materials Science: An Indian Journal*, 7(5) National 0974-7486
- Mahaling, R N., Vayer, M., Gulliot, S. and Sinturel, C. (2011). Oriented array of polyethylene-*block*-poly(ethylene oxide) Nanoplatelets in unsaturated polyesters cross-linked coatings, *European Polymer Journal*, v 47 : pp 2277 International 00143057. IMF: 3.005
- Mukherjee, P., Padhan, S.K., Dash, S., Patel, S., Mohapatra, P.K., Mishra, B.K. (2011). Effect of temperature on pseudoternary system Tween-80-butanol-hexane-water *Journal of Colloid and Interface Science* 355 (1), 157-163 International ISSN: 0021-9797 IMF: 3.552
- Mukherjee, P., Padhan, S.K., Dash, S., Patel, S.,Mishra, B.K. (2011). Clouding behaviour in surfactant systems. *Advances in Colloid and Interface Science*. 162 (1-2), 59-79. International ISSN: 0001-8686 IMF:7.78
- Mukherjee, P., Sahu, S., Padhan, S.K., Dash, S., Patel, S., Mohapatra, P.K., Mishra, B.K. (2011) Temperature induced emulsification and demulsification of pseudoternary mixtures of Tween80-butanol-kerosene-water system. *Industrial and Engineering Chemistry Research* 50 (21) pp. 11889-11896 International ISSN: 1520-5045 IMF: 2.587
- Pal, A., Mishra, B.K., Nath, R.K., Deb, S., Panigrahi, S., Sinha, T.P. (2011) Study of miscibility and aggregate formation in nano-dimensional Langmuir-Blodgett films of p-quaterphenyl with stearic acid, *Nanoscience and Nanotechnology Letters*3 (3), 328-334 International ISSN: 1941-4900 IMF: 1.431
- Pal, A., Mishra, B.K., Panigrahi, S., Nath, R.K., Deb, S. (2011). Adsorption of chicago sky blue on the langmuir monolayer and Langmuir-blodgett films of octadecylamine, *Journal of Macromolecular Science, Part A: Pure and Applied Chemistry* 48 (8), 619-624 International ISSN: 1060-1325 IMF: 0.809
- Pal, A., Panigrahi, S., Nath, R.K., Deb, S., Sinha, T.P., Mishra, B.K.(2011). Aggregation of non-amphiphilic bathophenanthroline in the restricted geometry of Langmuir-Blodgett films with two different matrices, *Thin Solid Films* 520 (1) , 537-542. International ISSN: 0040-6090 IMF: 1.867
- Panigrahi, M., Dash, S., Patel, S., Mishra, B.K. (2011). Preferential solvation of styrylpyridinium dyes in binary mixtures of alcohols with hexane, dioxane, and dichloromethane. *Journal of Physical Chemistry B*, 115 (1), 99-108. International ISSN: 1520-6106 IMF:3.302
- Rayeroux, David, Patra, Braja N., Lacroix-Desmazes, Patrick (2011). Synthesis of Amphiphilic Diblock Copolymers of Poly(styrene) and Poly(acrylic acid) by Reverse Iodine Transfer Polymerization (RITP) in Solution and Emulsion. *Polymer Preprints*. 52(2), 715-716 International 0032-3934

- Sahoo, S., Chakraborti, C. K. and Behera, P. K. (2011). Characterization of Controlled Release Ofloxacin Suspensions by Fourier Transform Infrared Spectroscopy, Research. *Journal of Pharmaceutical, Biological and Chemical Sciences*. 2, 926-939. International 0975-8585 IMF: 0.35
- Sahoo, S., Chakraborti, C. K., Behera, P. K. and Mishra, S. C. (2011).. Analytical Characterization of A Controlled Release Polymeric Suspension. *International Journal of Pharmaceutical Sciences and Research*. 2, 2011, 3189-3201. International 0975-8232 IMF: 1.54
- Sahoo, S., Chakraborti, C. K., Behera, P. K. and Mishra, S. C. (2011). Spectroscopic Investigations of A Controlled Release Mucoadhesive Suspension. *Asian Journal of Pharmaceutical and Clinical Research*. 4, 63-70 International 0974-2441 IMF: 0.51
- Sahoo, S., Chakraborti, C. K., Behera, P. K. and Mishra, S. C. (2011). Characterization of Mucoadhesive Norfloxacin suspensions by fourier transform Infrared Spectroscopy. *International Journal of Drug Development & Research*. 3, 261-270 International 0975-9344 IMF:0.18
- Sahoo, S., Chakraborti, C. K., Behera, P. K., Mishra, S. C. (2011). Analytical Characterization of Mucoadhesive Norfloxacin/Carbopol934 Polymeric Suspension, *International Journal of Pharmacy & Technology*. 3, 3239-3266 International 0975-766X IMF: 1.2106.
- Sahoo, S., Chakraborti, C. K., Behera, P. K., Mishra, S. C. (2011). Characterization of Mucoadhesive Ciprofloxacin Suspensions by Fourier Transform Infrared Spectroscopy. *International Journal of Pharmaceutical Sciences Review and Research*. 2, 122-128. International 0976 – 044X IMF:
- Sahoo, S., Patel, S., Mishra, B.K. (2011). Quantitative structure property relationship for Henry's law constant of some alkaneisomers. *Thermochimica Acta*. 512 (1-2), 273-277. International ISSN: 0040-6031 IMF:2.184
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### *Snapshots of the Departmental Activities*

