

**Profile of Dr. Kumares Ghosh**  
**Professor**  
**Department of Chemistry**  
**University of Kalyani, WB (India)**

**1. Research Project**

S.No	Title	Agency	Period	Grant Amount Mobilized (Rs lakh)	Status
1.	Design and synthesis of chiral fluororeceptors for selective sensing and chiral discrimination of carboxylate functional group (SR/S1/OC-76/2010, dated 23.08.2011).	DST New Delhi	October 2011- October 2014	45.90 Lakh	Running
2.	Design and synthesis of novel receptors in molecular recognition studies on dicarboxylic acids (SR/FTP/CS-18/2004, dated 01.12.2004)	DST, Govt. of India, New Delhi	January 10, 2005 to January 9, 2008.	10.32 lakh	Completed
3.	Molecular recognition: Design and synthesis of model receptors for carboxylic acids (01(1922)/04/EMR-II, dated 28.05.2004)	CSIR, New Delhi	August 18, 2004 to Feb, 2007	9 lakh	Completed
4.	Design and synthesis of hydrogen bonding fluorescent receptors for anions (01(2240)/08/EMR-II, dated 21.05.2008).	CSIR, New Delhi	October 2008 to October 2011	14.26 Lakh	Completed

## 2. Lecture presented in the symposium

S.No	Title of the Lecture / Academic Session	Title of Conference / Seminar etc.	Organized by
1.	<b>Invited Lecture</b> Recognition of neutral and anionic substrates by synthetic receptors.	Fourth CRSI (Kolkata Chapter); August 04, 2006	Department of Chemistry, University of Kalyani
2.	<b>Invited Lecture</b> Design and synthesis of artificial receptors in host-guest chemistry	Acharya Prafulla Chandra Ray and Chemistry today 2007, August 02-03, 2007	Indian Chemical Society and the Department of Chemistry, CU.
3.	<b>Invited Lecture</b> Design and synthesis of fluorescent receptors in host-guest chemistry	Sixth CRSI (Kolkata Chapter) symposium, August 02, 2008	Department of Chemistry, University of North Bengal
4.	<b>Invited Lecture</b> Design and synthesis of hydrogen bonding fluororeceptors in supramolecular chemistry.	National Conference on Windows of Chemistry – I, February 7 – 9, 2008	Department of Chemistry, Bankura Sammilani College
5.	<b>Invited Lecture</b> Design and Synthesis of Task-specific molecules in Supramolecular Chemistry	Royal Society of Chemistry (Eastern India Section) 30 <sup>th</sup> July, 2008	Royal Society of Chemistry (Eastern India Section); held at Association for the Cultivation of Science, Kolkata
6.	<b>Invited Lecture</b> Design and synthesis of hydrogen bonding fluoro receptor for neutral and anionic substrates	Recent Trends in Chemical and Biochemical Research, December 23, 2008.	Department of Chemistry and Biochemistry, Presidency College, Kolkata
7.	<b>Dr. Basudev Banerjee Memorial Lecture (2007):</b> Design and synthesis of hydrogen bonding fluororeceptors in selective sensing of neutral and anionic species.	45 <sup>th</sup> Annual Convention of Chemists and International Conference on Recent Advances in Chemistry, November 23-27, 2008.	Indian Chemical Society, 92 APC Road, Kolkata 09.
8.	<b>Invited Lecture</b> Design and synthesis of molecular receptors for substrates of biological significance	4 <sup>th</sup> Mid-CRSI National Symposium in Chemistry, 23 <sup>rd</sup> July, 2009.	Department of Applied Chemistry, Shri GS Institute of Technology and Science, Indore, India.

9	<b>Invited Lecture</b>	A Pathway to Biological Processes September 24-25, 2010	Department of Chemistry, Hooghly Mohsin College, Chinsurah, Hooghly.
10	<b>Invited lecture</b> Recognition and sensing of anionic substrates by designed synthetic receptors	Organic Chemistry-IV (NSOC-IV), held on February 02-03, 2011	Department of Chemistry, Jadavpur University
11	<b>Invited Lecture:</b> Task specific molecular design in supramolecular chemistry	UGC sponsored seminar, September 06, 2011	, Department of Chemistry, Ramkrishna Mission Vivekananda Centenary College, Rahara
12	<b>Invited lecture:</b> Synthesis of design – based molecules and investigation of their potential in molecular recognition	National seminar on ‘Recent advances in chemical sciences’ March 15 – 17, 2012	University of Burdwan
13	<b>Invited Lecture:</b> Design – based synthetic molecules in anion and cation recognition	UGC sponsored National Seminar on Journey of Chemistry through life, Feb 23 – 25, 2012	Department of Chemistry, Dr. B. N. Dutta Smiriti Mahavidyalaya, Hatgobindapur, Burdwan
14	<b>Invited Lecture:</b> Pyridinium – based synthetic receptors in anion sensing	Current Trends in Chemistry, Chemical Research Society of India, Kolkata Chapter, August 8, 2012	Department of Chemical Sciences, IISER Kolkata, Mohonpur Campus, West Bengal, India
15	<b>Invited Lecture:</b> Design and synthesis of chemosensors for selective sensing of anions	National conference on Recent Advancement in Chemical Sciences, Nov, 18-19, 2011	Department of Chemistry, J. K. College, Purulia
16	<b>Invited Memorial Lecture Award:</b>	<b>Professor D. K. Banerjee Memorial Lecture award (seventh), January 12, 2012</b>	Department of Organic Chemistry, Indian Institute of Science, Bangalore
17	<b>Invited Lecture:</b> Design-based synthetic receptors in anion recognition	UGC sponsored National seminar on Frontier in Chemistry, 4 <sup>th</sup> and 5 <sup>th</sup> December, 2013	Department of Chemistry, M.U.C. Women’s College, Burdwan and Vivekananda Mahavidyalaya, Burdwan.

### 3. Lecture delivered in Refreshers Course

S.No	Programme	Duration	Organized by
1	UGC sponsored Refresher Course in Biochemistry	September 01 to 21, 2006	UGC Academic Staff College, Burdwan
2	UGC sponsored 5 <sup>th</sup> Refresher Course in chemistry	August 28 to September 17, 2010	UGC Academic Staff College, Burdwan
3	UGC sponsored Refresher Course in Chemistry	November 22 to December 11, 2010	UGC Academic Staff College, Calcutta
4	UGC sponsored Refresher Course on Chemistry: Today and Tomorrow	January 02 to January 22, 2010	Jadavpur University
5	UGC sponsored Refresher Course on Modern Chemical Sciences: Theories and Applications	January 02 to January 22, 2013	Jadavpur University

### 4. Teaching

- Reaction mechanism
- Reagent chemistry
- Synthetic chemistry
- Organometallic chemistry
- Supramolecular chemistry

### 5. Research Interest

#### **Molecular recognition and Supramolecular chemistry**

- *Design and synthesis of chemosensors for cations, anions, neutral molecules.*
- *Supramolecular stimuli responsive gel*
- *Chiral recognition*

### 6. Ph.D awarded

1. Dr. Goutam Masanta; Chembioteck Research International (TCG Life Sciences)
2. Dr. Tanushree Sen; Assistant Professor, J. K. College, Purulia.

3. Dr. Suman Adhikari; Assistant Professor, Govt. Degree College, Dharmanagar, Tripura (N).
4. Dr. Indrajit Saha; Assistant Professor, Ramkrishna Mahavidyalya, Kailashahar, Tripura.
5. Dr. Avik Ranjan Sarkar; Post Doctoral fellow, Ajou University, Suwon, Korea
6. Dr. Tanmay Sarkar; Post Doctoral fellow, Wizemann Institute, Israel.
7. Dr. Debasis Kar

## 7. Students pursuing Ph.D

1. Debojyoti Tarafdar (CSIR-SRF)
2. Sk. Sarfaraj Ali (CSIR-JRF)
3. Santanu Panja (CSIR-JRF)
4. Anupam Majumdar (CSIR-JRF)
5. Atanu Panja (CSIR-JRF)
6. Subhendu Mondal (UGC-JRF)
7. Chiranjit Pati (UGC-JRF)

## 8. List of Publications (h-Index: 21)

### 2014

1. Fluoride – responsive hydrogel of cholesterol appended pyridinium urea and its metal detecting ability and semi conducting behavior, **Ghosh, K.\***; Kar, D.; Bhattacharya, S. *Supramolecular. Chem.*, **2014**, 26, 313.
2. Rhodamine-labelled simple architecture for fluorometric and colorimetric sensing of Hg<sup>2+</sup> and Pb<sup>2+</sup> ions in semi-aqueous environment, **Ghosh, K.\***; Sarkar, T.; Majumdar, A.; Mandal, S. K.; Khuda-Bukhsh, A. R. *Anal. Methods*, **2014**, 6, 2648.
3. Anthracene-labeled pyridinium-based symmetrical chiral chemosensor for enantioselective recognition of L-tartrate, **Ghosh, K.\***; Sarkar, T. *Tetrahedron Lett.*, **2014**, 55, 1342.
4. Ion conducting cholesterol appended pyridinium bis amide-based gel in the selective detection of Ag<sup>+</sup> and Cl<sup>-</sup> ions, **Ghosh, K.\***; Kar, D.; Panja, S.; Bhattacharya, S. *RSC. Advances*, **2014**, 4, 3798.
5. Benzimidazolium-based new simple ratiometric fluorescent sensor for selective detection of dihydrogenphosphate, **Ghosh, K.\***; Kar, D.; Panja, A.; Petsalakis, I. D.; Theodorakopoulos, G. *Supramolecular. Chem.*, **2014**, 26, 856.
6. Azaindole-1,2,3-triazole-conjugate in a tripod for selective sensing of Cl<sup>-</sup>, H<sub>2</sub>PO<sub>4</sub><sup>-</sup> and ATP under different conditions, **Ghosh, K.\***; Kar D, Joardar, S.; Samadder, A., Khuda-Bukhsh, A. R. *RSC. Advances*, **2014**, 4, 11590

7. Progress of 3-aminopyridinium-based synthetic receptors in anion recognition, **Ghosh, K\***; Sarkar, A. R.; Sarkar, T.; Panja, S.; Kar, D. *RSC. Advances*, **2014**, *4*, 20114, Review Article
8. Selective sensing of Al<sup>3+</sup> by naphthyridine coupled rhodamine chemosensors, **Ghosh, K\***; Majumdar, A.; Sarkar, T. *RSC. Advances*, **2014**, *4*, 23428.
9. Piperazine-based new sensor: selective ratiometric sensing of Fe<sup>3+</sup>, logic gate construction and cell imaging, **Ghosh, K\***; Tarafdar, T. *Supramolecular. Chem.*, **2014**, <http://dx.doi.org/10.1080/10610278.2014.969264>

## 2013

10. Rhodamine-labeled sensor bead as colorimetric and fluorometric dual-assay for Hg<sup>2+</sup> ions in water, **Ghosh, K\***; Sarkar, T. *Asian J.Org. Chem.* **2013**, *2*, 157-163.
11. A new quinoline – based chemosensor in ratiometric sensing of Hg<sup>2+</sup> ions, **Ghosh, K\***; Tarafdar, D. *Supramolecular. Chem.*, **2013**, *25*, 127 – 132.
12. O- tert- butyldiphenylsilyl coumarin and dicoumarol: A case toward selective sensing of F<sup>-</sup> ions in organic and aqueous environments, **Ghosh, K\***; Kar, D. Frohlich, R.; Chattopadhyay, A. P.; Sammader, T.; Khuda-Bukhsh, A. R. *Analyst*, **2013**, *138*, 3038.
13. Benzimidazolium-based receptors: Case of iodide–water cluster induced supramolecular chain and improved fluorometric binding of iodide involving alcoholic group, **Ghosh, K\***; Saha, I. *Journal of Molecular Structure.* **2013**, *1042*, 57.
14. Design – based molecules and their potential in molecular recognition, **Ghosh, K\***. Full paper *Proceedings on Recent Advances in Chemical Sciences*, ISBN: 81-87259-84-1, published by Burdwan University, pp 139 – 145.
15. L-Valine derived benzimidazole based bis-urea in enantioselective fluorescence sensing of L-tartrate, **Ghosh, K\***; Sarkar, T. *Tetrahedron Lett.*, **2013**, *54*, 4568 – 4573.
16. Pyridinium-based tripodal chemosensor in visual sensing of AMP in water by indicator displacement assay (IDA), **Ghosh, K\***; Sarfaraj, S. S.; Sarkar, A. R.; Samadder, A.; Khuda-Bukhsh, A. R.; Petsalakis, I. D.; Theodorakopoulos, G. *Org. Biomol. Chem.* **2013**, *11*, 5666 – 5672.
17. Azaindole-1,2,3-triazole conjugate as selective fluorometric sensor for dihydrogenphosphate, **Ghosh, K\***; Kar, D.; Joardar, S.; Sahu, D.; Ganguly, B. *RSC. Advances*, **2013**, *3*, 16144 – 16151
18. Enantioselective sensing of lactate by pyridinium-based chiral receptor, **Ghosh, K\***; Majumdar, A. *Tetrahedron Lett.*, **2013**, *54*, 5686 – 5689.

19. Piperazine-based simple structure for selective sensing of  $\text{Hg}^{2+}$  and glutathione and construction of a logic circuit mimicking an INHIBIT gate, **Ghosh. K\***; Tarafdar D.; Samadder, A., Khuda-Bukhsh, A. R. *New J. Chem.* **2013**, *37*, 4206.
20. Rhodamine – labelled new architecture for dual sensing of  $\text{Co}^{2+}$  and  $\text{Hg}^{2+}$  ions, **Ghosh, K\***; Sarkar, T. Majumdar, A. *Tetrahedron Lett.*, **2013**, *54*, 6464.
21. Anthraquinone coupled benzothiazole-based receptor for selective sensing of  $\text{Cu}^{2+}$ , **Ghosh. K\***; Kar, D. *J. Inclusion phenomena and macrocyclic chemistry*, **2013**, *77*, 67 - 74.

## 2012

22. Coumarin-based symmetrical bisamide as fluorescent and colorimetric probes for copper ions, **Ghosh. K\***; Sarkar, T.; Tarafdar, D. *Supramolecular Chem.* **2012**, *24*, 197.
23. Anthracene labeled 1,2,3-triazole linked bispyridinium amide for selective sensing of  $\text{H}_2\text{PO}_4^-$  by fluorescence and gel formation, **Ghosh. K\***; Sarkar, A. R.; Chattopadhyay, A. P. *Euro. J. Org. Chem.* **2012**, *7*, 1311.
24. Cholesterol appended pyridinium ureas: A case of gel making and breaking for selective visual readout of  $\text{F}^-$ , **Ghosh. K\***; Kar, D. *Org. Biomol. Chem.* **2012**, *10*, 8800.
25. L-Valine-derived simple benzimidazole-based host in selective sensing of  $\text{Hg(II)}$  ions, **Ghosh. K\***; Sarkar, T. *Supramol. Chem.* **2012**, *24*, 748.
26. Pyridinium-based fluororeceptors as practical chemosensors for hydrogen pyrophosphate ( $\text{HP}_2\text{O}_7^{3-}$ ) in semiaqueous and aqueous environments, **Ghosh. K\***; Sarkar, A. R.; Samadder, A., Khuda-Bukhsh, A. R. *Org. Lett.* **2012**, *14*, 4314.
27. A rhodamine appended tripodal receptor as a ratiometric probe for  $\text{Hg}^{2+}$  ions, **Ghosh. K\***; Sarkar, T.; Samadder, A. *Org. Biomol. Chem.* **2012**, *10*, 3236.
28. Eneidyne scaffold-based highly selective chemosensor for ratiometric sensing of  $\text{H}_2\text{PO}_4^-$  ions, **Ghosh, K\***; Ali, S. S.; Joardar, S. *Tetrahedron Lett.* **2012**, *53*, 2054.
29. Design and synthesis of anthracene-based bispyridinium amides: Anion binding, cell staining and DNA interaction studies, **Ghosh. K\***; Sarkar, A. R.; Ghorai, A.; Ghosh, U. *New J. Chem.* **2012**, *36*, 1231.
30. *Ortho*-phenylenediamine-based open and macrocyclic receptors in selective sensing of  $\text{H}_2\text{PO}_4^-$ , ATP and ADP under different conditions, **Ghosh. K\***; Saha, I. *Org. Biomol. Chem.* **2012**, *10*, 9383.

31. Rhodamine-based bis-sulfonamide as a sensing probe for Cu<sup>2+</sup> and Hg<sup>2+</sup> ions, **Ghosh. K<sup>\*</sup>**; Sarkar, T.; Samadder, A., Khuda-Bukhsh, A. R. *New J. Chem.* **2012**, 36, 2121. (cited as TOP 10)

2011

32. Pyrene-based a simple new hetero bis amide pyridinium salt for selective sensing of benzoate and hydrogen sulphate, **Ghosh. K<sup>\*</sup>**; Sarkar, A. R. *Supramolecular Chem.*, **2011**, 23, 365.
33. Triphenylamine-based simple chemosensor for selective fluorometric detection of fluoride, acetate and dihydrogenphosphate ions in different solvents, **Ghosh. K<sup>\*</sup>**; Saha, I. *J. Inclusion phenomena and macrocyclic chemistry*, **2011**, 70, 97.
34. Selective sensing of fumarate over maleate by benzimidazolium – based fluororeceptors, **Ghosh. K<sup>\*</sup>**; Saha, I.; Frohlich, R.; Patra, A. *Mini-reviews in organic chemistry*, **2011**, 8, 31-37 (special issue on anion recognition).
35. Selective sensing of Cu (II) by a simple anthracene – based tripodal chemosensor, **Ghosh, K<sup>\*</sup>**; Sarkar, T. *Supramolecular Chem.*, **2011**, 23, 435.
36. Anthracene – based hetero bis amide chemosensor in fluorescence sensing of monocarboxylates over monocarboxylic acids, Ghosh, K<sup>\*</sup>; Sarkar, A. R. *Supramolecular Chem.* **2011**, 23, 539.
37. Benzimidazolium-based flexible tripodal fluorescent chemosensor for selective sensing of dihydrogenphosphate and ATP, **Ghosh. K<sup>\*</sup>**; Saha, I. *Supramolecular Chem.* **2011**, 23, 518.
38. Fluorometric recognition of both dihydrogenphosphate and iodide by a new flexible anthracene linked benzimidazolium – based receptor, **Ghosh. K<sup>\*</sup>**; Kar, D. *Beilstein J. Org. Chem.* **2011**, 7, 254.
39. Naphthyridine amide-urea conjugate: a case toward selective fluorometric sensing of *N*-acetyl proline carboxylate, **Ghosh. K<sup>\*</sup>**; Sarkar, T, *J. Inclusion phenomena and macrocyclic chemistry*, **2011**, 71, 243.
40. A new ortho-phenylenediamine-based cleft for selective sensing of H<sub>2</sub>PO<sub>4</sub><sup>-</sup> and ATP, **Ghosh. K<sup>\*</sup>**; Saha, I. *New J. Chem* **2011**, 35, 1397, (cited as TOP 10)
41. Pyridinium-based symmetrical diamides as chemosensors in visual sensing of citrate through indicator displacement assay (IDA) and gel formation, **Ghosh. K<sup>\*</sup>**; Sarkar A. R. *Org. Biomol. Chem.* **2011**, 9, 6551.



42. Benzimidazolium-based simple host for fluorometric sensing of  $\text{H}_2\text{PO}_4^-$ ,  $\text{F}^-$ ,  $\text{PO}_4^{3-}$  and AMP under different conditions, **Ghosh. K\***; Kar, D.; Ray Chowdhury, P. *Tetrahedron Lett.* **2011**, 52, 5098 (cited as TOP 10)
43. Experimental and theoretical anion binding studies on coumarin linked thiourea and urea molecules, **Ghosh. K\***; Adhikari, S.; Frohlich, R.; Petsalakis, I. D.; theodorakopoulos, G, *J. Mol. Structure*, **2011**, 1004, 193.
44. (rac)-1,1'-Binaphthyl-based simple receptors designed for fluorometric discrimination of maleic and fumaric Acids, **Ghosh. K\***; Sen, T.; Patra, A.; Mancini, J.; Cook, J. M.; Parish, C. A. *J. Phys. Chem. B.*, **2011**, 115, 8597.

## 2010

45. Triphenylamine – based receptor for selective recognition of dicarboxylates, **Ghosh. K\***; Saha, I.; Masanta, G.; Wang, E. B.; Parish, C. A. *Tetrahedron Lett.*, **2010**, 51, 343 – 347.
46. *trans*-Pyridyl and naphthyridyl cinnamides as alternatives for urea in complexation of carboxylic acid and formation of water-templated assemblies in the solid state, **Ghosh. K\***; Sen, T.; Frohlich, R.; Petsalakis, I. D.; Theodorakopoulos, G. *J. Phys. Chem B*, **2010**, 114, 321 - 329. (cited as TOP 10)
47. Naphthyridine-based symmetrical and unsymmetrical pyridinium amides in sensing of biotin salt, **Ghosh. K\***; Sarkar, A.; Sen, T. *Supramolecular Chem.*, **2010**, 22, 81 – 94.
48. A new benzimidazolium receptor for fluorescence sensing of iodide, **Ghosh. K\***; Saha, I. *Supramolecular Chem.*, **2010**, 22, 311 - 317.
49. Binding induced destruction of an excimer in anthracene-linked benzimidazole diamide: a case toward the selective detection of organic sulfonic acids and metal ions, **Ghosh. K\***; Sen, T.; Patra, A. *New J. Chem.*, **2010**, 34, 1387 – 1393. (cited as TOP 10)
50. Selective sensing of Zn (II) ion by a simple anthracene – based tripodal chemosensor, **Ghosh. K\***; Saha, I. *Tetrahedron Lett.*, **2010**, 51, 4995.
51. Naphthyridine-based receptors for fluometric detection of urea and biotin, **Ghosh. K\***; Sen, T. *J. Inclusion phenomena and macrocyclic chemistry*, **2010**, 67, 271 – 280.
52. Hydrogen bonded assemblies of 1,8-naphthyridine derivatives: discrete or polymeric structures in the solid state, **Ghosh. K\***; Sen, T. Frohlich, R. *J. Inclusion phenomena and macrocyclic chemistry*, **2010**, 68, 193.
53. Anthracene coupled adenine for selective sensing of copper ions, **Ghosh. K\***; Sen, T. *Beilstein J. Org. Chem.* **2010**, 6, No. 44.

54. Naphthalene appended 2,5-diketopiperazine towards fluorometric response of dihydrogenphosphate, **Ghosh. K\***; Sen, T. *J. Inclusion phenomena and macrocyclic chemistry*, **2010**, 68, 447.
55. Anthracene appended pyridinium amide-urea conjugate in selective fluorometric sensing of L-N-acetylvaline salt, **Ghosh. K\***; Sarkar, T. *Beilstein J. Org. Chem.* **2010**, 6, 1211.
56. One-pot synthesis of linearly fused N-heterocycles from their angular analogues and studies of their redox and electrochromic properties, Sinan, M.; **Ghosh, K.**; Goswami, S. *J. Org. Chem.* **2010**, 75, 2065.

## 2009

57. Anthracene – based macrocyclic fluorescent chemosensor for selective sensing of dicarboxylate, **Ghosh. K\***; Sarkar, A. R. *Tetrahedron Lett*, **2009**, 50, 85-88.
58. Anthracene labeled pyridine amides: A class of prototype PET sensors towards monocarboxylic acid, **Ghosh. K\***; Masanta, G.; Chattopadhyay, A. P. *Journal of Photochemistry and Photobiology A: Chemistry*, **2009**, 203, 40-49.
59. Pyridine amide based simple synthetic receptor for selective recognition of dihydrogenphosphate, **Ghosh. K\***; Sarkar, A, R.; Patra, A. *Tetrahedron Lett*, **2009**, 50, 6557 – 6561.
60. Design and synthesis of an *ortho*-phenylenediamine – based open cleft: a selective fluorescent chemosensor for dihydrogen phosphate, **Ghosh. K\***; Saha, I.; Patra, A. *Tetrahedron Lett*, **2009**, 50, 2392 – 2397.
61. A benzthiazole – based simple receptor in fluorescence sensing of biotin ester and urea, **Ghosh. K\***; Sen, T. *Tetrahedron Lett*, **2009**, 50, 4096 – 4100.
62. Triphenylamine-based receptors in selective recognition of dicarboxylic acids, **Ghosh. K\***; Masanta, G.; Frohlich, R.; Petsalakis, I. D.; Theodorakopoulos, G. *J. Phys. Chem B*, **2009**, 113, 7800–7809. (cited as TOP 10)
63. Anthracene-based open and macrocyclic receptors in the fluometric detection of urea, **Ghosh. K\***; Masanta, G. *New J. Chem.*, **2009**, 33, 1965 – 1972. (cited as TOP 10)
64. Triphenylamine-based pyridine N-Oxide and pyridinium salts for size-selective recognition of dicarboxylates, **Ghosh. K\***; Masanta, G.; Chattopadhyay, A. P. *Euro. J. Org. Chem.* **2009**, 4515 – 4524.

## 2008

65. Adenine – based urea receptors in fluorescent recognition of iodide, **Ghosh. K\***, Sen, T. *Tetrahedron Lett*, **2008**, 49, 7204-7208.

66. A pyridine - based macrocyclic host for urea and acetone, **Ghosh. K\***; Adhikari, S.; Frohlich, R. *Tetrahedron Lett*, **2008**, *49*, 5063-5066.
67. Anthracene – based *ortho* phenylenediamine clefts for sensing carboxylates, **Ghosh. K\***; Saha, I. *Tetrahedron Lett*, **2008**, *49*, 4591-4595.
68. Anthracene coupled *trans* – pyridylcinnamide: a new fluororeceptor for selective sensing of dicarboxylates, **Ghosh. K\***; Masanta, G. *Tetrahedron Lett*, **2008**, *49*, 2592-2597.
69. A quinoline – based tripodal fluororeceptor for citric acid, **Ghosh. K\***; Adhikari, S. *Tetrahedron Lett*, **2008**, *49*, 658-663.
70. Microwave – assisted Vilsmeier Haack formylation reaction of aromatic substrates, **Ghosh. K\***; Adhikari, S. *J. Ind. Chem. Soc.* **2008**, *85*, 959-961.
71. Quinoline based receptor in fluorometric discrimination of carboxylic acids, **Ghosh. K\***; Adhikari, S.; Chattopadhyay, A. P.; Roy Chowdhury, P. K. *Beilstein J. Org. Chem.* **2008**, *4*, No. 52.

## 2007

72. A naphthyridine-based receptor for sensing citric acid, **Ghosh. K\***, Sen, T. Frohlich, R. *Tetrahedron Lett*, **2007**, *48*, 2935.
73. Anthracene-based ureidopyridyl fluororeceptor for dicarboxylates. **Ghosh. K\***, Masanta, G. Chattopadhyay, A. P. *Tetrahedron Lett*, **2007**, *48*, 6129.
74. *N*-(6-methyl-2-pyridyl) acrylamide: A case of amide hydrolysis without assistance of acid or base in the synthesis of water driven H-bonded polymeric chain, **Ghosh. K\***, Sen, T. Frohlich, R. *Tetrahedron Lett*, **2007**, *48*, 6308.
75. Adenine based receptor for dicarboxylic acids, **Ghosh. K\***, Sen, T. Frohlich, R. *Tetrahedron Lett*, **2007**, *48*, 7022.
76. An anthracene based bispyridinium amide receptor for selective sensing of anions, **Ghosh. K\***, Sarkar, A. R. Masanta, G. *Tetrahedron Lett*, **2007**, *48*, 8725.

## 2006

77. Water templated hydrogen bonded network of pyridine amide appended carbamate in solid state, **Ghosh. K\***, Adhikari, S., Frohlich, R. *Journal of Molecular Structure*, **2006**, *785*, 63.
78. Fluorescence sensing of tartaric acid: a case of excimer emission caused by hydrogen bond-mediated complexation, **Ghosh, K\***, Adhikari, S. *Tetrahedron Lett*, **2006**, *47*,

3577.

79. Colorimetric and fluorescence sensing of anions using thiourea based coumarin receptors, **Ghosh, K.**\* Adhikari, S. *Tetrahedron Lett*, **2006**, *47*, 8165.
80. Effect of hydroxyl group in an anthracene-labelled pyridine amide receptor in molecular recognition of  $\alpha$ -keto and hydroxymonocarboxylic acids, **Ghosh, K.**\*, Masanta, G. *Tetrahedron Lett*, **2006**, *47*, 9233.
81. Triphenylamine-based novel PET sensors in selective recognition of dicarboxylic acids, **Ghosh, K.**\*, Masanta, G. *Tetrahedron Lett*, **2006**, *47*, 2365.
82. Anthracene coupled pyridine amines: A new 'off – on' switch for molecular recognition studies on dicarboxylic acids, **Ghosh, K.**\*, Masanta, G. *Chemistry Lett*, **2006**, *34*, 414.

### 2005

83. Non bonded O---S contacts and O-H---S hydrogen bonds in isomeric hydroxyphenyl-1,3-dithianes, Ganguly, N. C., Datta, M., **Ghosh, K.**\*, Bond, A. D. *CrystEngCommun*, **2005**, *7*, 210.
84. Anthracene appended pyridine amide: A simple sensor for monocarboxylic acids, **Ghosh, K.**\*, Masanta, G. *Supramolecular Chem*, **2005**, *17*, 331

### 2003

85. 2-(2-Hydroxyphenyl)-1,3-dithiane, Usman, A., Fun, H. K., Ganguly, N. C., Datta, M., **Ghosh, K.** *Acta Cryst*, **2003**, *E59*, o773.
86. Influence of  $\pi$  – stacking along with hydrogen bonding interactions in the recognition of monocarboxylic acids. Goswami, S., **Ghosh, K.**, Ghosh, S. *J. Ind. Chem. Soc.*, **2003**, *80*, 1187.

### 2001

87. N-Bromosuccinimide reactions of some heterocycles in the presence or absence of water: An overview of ring versus side chain bromination for the synthesis of important brominated heterocyclic synthons. Goswami, S., **Ghosh, K.**, Mukherjee, R., Adak, A., Mahapatra, A. *J. Heterocyclic Chem.*, **2001**, *38*, 173.
88. Recognition of insoluble tartaric acid in chloroform. Goswami, S.; **Ghosh, K.**; Mukherjee, R. *Tetrahedron* **2001**, *57*, 4987.

### 2000

89. Troger's base molecular scaffolds in dicarboxylic acid recognition. Goswami, S. **Ghosh, K.**, Dasgupta, S. *J. Org. Chem.*, **2000**, *65*, 1907.

90. Self-assembly of 2-pivaloyl-6-chloropterin. Goswami, S., Mukherjee, R., **Ghosh, K.**, Razak, I. A., Sundara Raj, S. S., Fun, H. K. *Acta Cryst*, **2000**, C56, 716.
91. 1:1 Hetero-assembly of 2-aminopyrimidine and (+)-camphoric acid. Goswami, S., Mukherjee, R., **Ghosh, K.**, Razak, I. A., Sundara Raj, S. S., Fun, H. K. *Acta Cryst*, **2000**, C56, 477.

### 1999

92. Molecular recognition: Hydrogen bonding induced configurational locking of a new photoresponsive receptor by dicarboxylic acids. Goswami, S., **Ghosh, K.**, Halder, M. *Tetrahedron Lett*, **1999**, 40, 1735.
93. 2-Acetylamino-6-methylpyridine-N-oxide monohydrate. Goswami, S., **Ghosh, K.**, Razak, S. S., Raj, S., Fun, H. K. *Acta. Cryst.* **1999**, C55, 579.
94. Novel motif of hydrogen bonds in the water-assisted supramolecular self-assembly of 2-acetylamino-6-methylpyridine-N-oxide and hetero-assembly of 1:1 co-crystal and *o*-phenylenediamine with catechol. Goswami, S., **Ghosh, K.**, *Supramolecular Chem*, **1999**, 11, 191.
95. 2-Aminopyridine-terephthalic acid (1:1) complex. Goswami, S., Mahapatra, A. K. **Ghosh, K.**, Nigam, G. D., Chinnakali, K., Fun, H. K. *Acta Cryst.* **1999**, C55, 87.
96. Three point hydrogen bondings of carboxyl group in recognition of carboxylic acid and amino acid with designed synthetic receptors, Goswami, S., **Ghosh, K.**, Mukherjee, R. *Ind. J. Chem.*, **1999**, 76, 661.

### 1997

97. Molecular recognition: Chain length selectivity studies of dicarboxylic acids by the cavity of a new Troger's base receptor. Goswami, S., **Ghosh, K.** *Tetrahedron Lett*, **1997**, 38, 4503.
98. Molecular recognition: Connection and Disconnection of hydrogen bonds –design and synthesis of artificial receptors for some biochemically important substrates. Goswami, S., **Ghosh, K.**, Mahapatra, A. *Ind. J. Chem.* **1997**, 36, 513.

### 1996

99. Molecular recognition: Connection and disconnection of hydrogen bonds, a case study with dimeric and highly associated monocarboxylic acids with simple receptors. Goswami, S., **Ghosh, K.**, Dasgupta, S. *Tetrahedron*, **1996**, 52, 12223.