



Presently the work is being carried to synthesize and evaluate the cationic surfactants both from renewable as well as non renewable raw materials. The surfactants are being synthesized by using well known reaction methodology of co-halogenation and / or epoxy ring opening reaction. The surfactants are also being evaluated for their surface and biological properties using various physico – chemical methodologies.

**Three most recent publications**

1. Synthesis of Glycerol-Based Pyridinium Surfactants and Appraisal of Their Properties, **Sukhprit Singh**, Avinash Bhadani, Hardeep Kataria, Gurcharan Kaur, and Raman Kamboj, *Ind. Eng. Chem. Res.*, 48 (2009) 1673 - 1677.
2. Novel Gemini Pyridinium Surfactants: Synthesis and study of their Surface activity, DNA binding and Cytotoxicity, Avinash Bhadani and Sukhprit Singh, *Langmuir*, 25 (2009) 11703 - 11712.
3. Synthesis of  $\beta$ -Amino Alcohols from Methyl Epoxy Stearate, Sukhprit Singh and Raman Kamboj, *Ind. Eng. Chem. Res.*, 49 (2010) 3106 - 3111.

**Research Projects (Ongoing)**

1. Synthesis and Evaluation of Lubricants from Vegetable Oils (**UGC**)
2. Synthesis of Some New Cationic Amphiphiles and Evaluation of their Surface and Biological Properties (**DST**)

**Research Projects (Completed)**

1. Antioxidant Activity of the Extracts of a few Indian spices and Chemical Studies on Some Usual and Unusual Fatty acids / Esters (**CSIR**)
2. Synthesis and Evaluation of Some New Surfactants (**CSIR**)