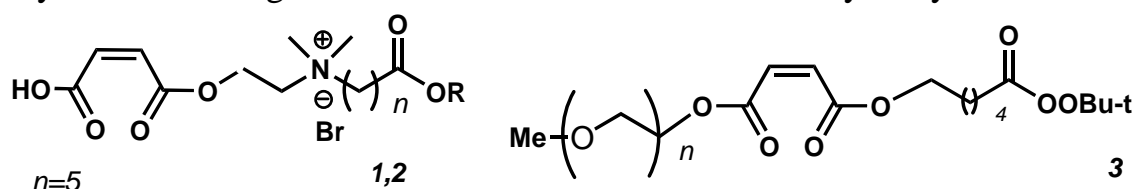


SYNTHESIS AND PROPERTIES OF SURFACE ACTIVE MONOMERS BASED ON DERIVATIVES OF HYDROXY AND AMINO ACIDS

Lviv Polytechnic National University; Lviv, Ukraine

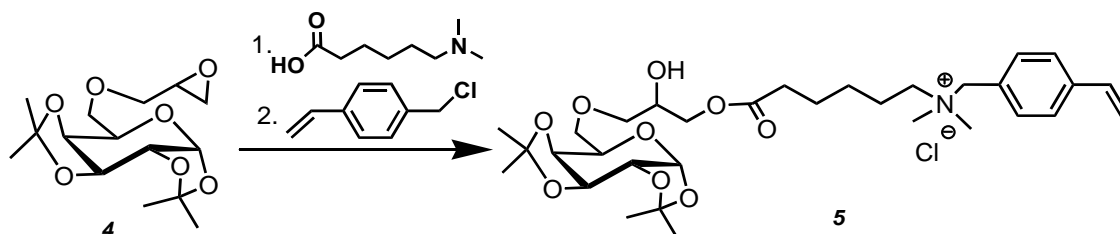
Surface-active monomers that have also been known as surfmers have shown the wide capability for creating reactive oligomers, polymeric particles with functionalized surface. The surface-active monomers consist of polymerizable fragment and various hydrophilic and lipophilic blocks that provide surface-active properties. In addition, modern surfmers also contain different functional groups.

Various functional surface active monomers that have polymerizable group abstracted from the anchor functional group due to the spacers that have different length and nature seem to be prospective compounds for obtaining colloidal systems with functionalized interface. Among various bifunctional compounds lactones seem to be the attractive reagents for obtaining functional monomers. It is known that the reactions with ring opening of lactone lead to various functional derivatives of hydroxyacids. Novel classes of surface active monomers with lipophylic alkylic, tert-butylperoxyalkylic, saccharide blocks and hydrophilic polyethylene glycolic, sulphopropyl or tetraalkylammonium blocks have been obtained. These surfmers were synthesised using various functional derivatives of ω -hydroxy acids.



R= C₁₆H₃₃; PEG MME 750

Novel types of surface active monomers based on 6-(dimethylamino) hexanoic acid and 6-maleimido –hexanoic acid have been obtained.



The value of cmc of these surface active monomers depends on nature of hydrophilic and lipophilic fragments. The polymerizable ability of obtained monomers has been also studied.