







Smaller the contact angle better is the wetting power. These value shows that synthesized gemini surfactant has good wetting property for steel and Teflon but not for glass at concentration (1mMol/L).

**Table 1:** Contact angle measurement of synthesized (1mMol/L) non-ionic Gemini surfactant with respect to different solid probes.

Sr. No.	Solid probes	Contact angle With respect to	
		Distilled water	Surfactant sol (1mMol/L)
1	Glass	30 <sup>0</sup>	43 <sup>0</sup>
2	Steel	75 <sup>0</sup>	65 <sup>0</sup>
3	Teflon	98 <sup>0</sup>	85 <sup>0</sup>

#### 4. Conclusion

In the present study a new protocol for the synthesis of novel glycerol based non-ionic Gemini surfactant through an environmental friendly process has been described. Non-ionic Gemini surfactants have wide applications because of their high surface activity and low critical micelle concentration. They can be used as emulsifier, dispersants, hydrophobic agent and also act as mild surfactant. Glycerol based nonionic Gemini surfactant was successfully synthesized by using, 1, 2 7, 8-Diepoxyoctane as spacer. The various functional groups present in the surfactant are determined by FTIR spectroscopy. The number of hydrogen atom and carbon atom of synthesized non-ionic gemini surfactant is also assigned by <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectroscopy. SEM analysis shows surface morphology of synthesized surfactant in aqueous solution is somewhat spherical in shape. The performance properties like solubilizing behaviour, Contact angle were studied. It can be concluded that the new glycerol-based non-ionic Gemini surfactant exhibit generally good solubilizing and wetting behaviour.

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