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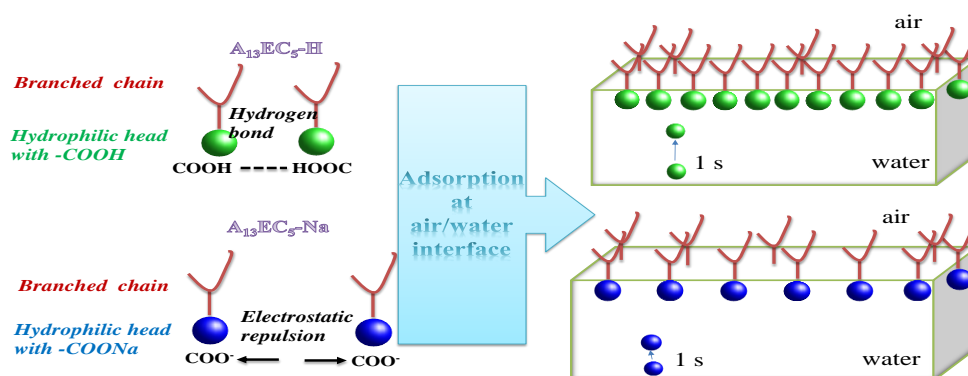
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Adsorption behavior of branched polyoxyethylene ether carboxylate surfactants

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Graphical abstract



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Abstract: In our work, branched anionic surfactant (3, 5, 7-trimethyl decanol polyoxyethylene ether carboxylate ($A_{13}EC_5-Na$)) has been successfully synthesized and characterized by fourier transform infrared (FT-IR) spectra. Static equilibrium surface tension, contact angle and dynamic surface tension of alcohol ether carboxylic acid ($A_{13}EC_5-H$), alcohol ether carboxylate ($A_{13}EC_5-Na$) and linear chain carboxylate ($A_{12}EC_5-Na$, as comparison) were investigated to study their spreading and adsorption behaviors. Electrolyte tolerance of anionic surfactants ($A_{13}EC_5-Na$ and $A_{12}EC_5-Na$) was also studied to explore the application in enhanced oil recovery. The results

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