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METAL-COMPLEXING ABILITY OF TROMETHAMOL-MODIFIED SILOXANE SURFACTANTS

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Abstract

Tromethamol-modified siloxane surfactants (disiloxane and siloxane copolymers), which have previously been synthesized in the authors' research group, were reacted with metal salts (Cu(II)acetate, Zn(II)acetate and Fe(III)sulfate). The obtained compounds were characterized by FT-IR and ^{1}H-NMR spectroscopy. The evolution of the reactions was followed by UV-Vis spectra and the obtained data proved the afinity of the tromethamol-based siloxane compounds towards metal species. The formed Cu complexes showed significantly higher electronic absorption compared to Cu(II)acetate. The tested siloxane surfactants, which also act as chelating agents, could be used for improving metal detection or in certain decontamination processes.

Key words: metal complex, metal detection, siloxane, surfactant, tromethamol

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