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Gravitational Drainage of Anionic and Nonionic Surfactant Mixtures for Foamability Enhancement SOUMYADIP SETT, RAKESH SAHU, ALEXANDER YARIN, University of Illinois at Chicago — Two surfactant mixture solutions were used to study gravitational drainage from thin vertical planar films and in a settler column. The surfactant mixtures contained anionic surfactant Sodium Dodecyl Sulfate (SDS) and nonionic superspreader trisiloxane SILWET L-77 at different mixing ratios. We found the relation between the lifetime of planar vertical film and foamability of the surfactant solution. Namely, solutions with longer lifetimes in planar film drainage reveal a higher foamability. Also, the foamability of the mixed surfactant systems was found to be greater than the foamability of each of the individual components.

Alexander Yarin
University of Illinois at Chicago

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