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Criterion of phase stability of asphaltenes in crude oils

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Abstract

Associate formation processes in crude oils are investigated by viscometry and dielectric spectroscopy. It is shown that fluidity decline in the 36-40 C range is typical for crude oils with a high resin and asphaltene content ratio. The critical polar resin concentration in stable asphaltene nanoaggregates is determined. © 2013 Springer Science+Business Media New York.

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Keywords

asphaltenes, crude oil disperse systems, crude oil stability, dielectric spectroscopy, phase transitions, viscometry