







Q

Home ► All Journals ► Engineering & Technology ► Journal of Dispersion Science and Technology ► List of Issues ► Volume 34, Issue 2 ► Dynamic Interfacial Tensions Between Off

Journal of Dispersion Science and Technology >

Volume 34, 2013 - <u>Issue 2</u>

159 19 0 Views CrossRef citations to date Altmetric

Original Articles

Dynamic Interfacial Tensions Between Offshore Crude Oil and Enhanced Oil Recovery Surfactants

Xin-Wang Song, Rong-hua Zhao, Xu-Long Cao, Ji-Chao Zhang, Lei Zhang, Lu Zhang 🔀 & ...show all

Pages 234-239 | Received 02 Dec 2011, Accepted 03 Jan 2012, Accepted author version posted online: 10 Feb 2012,

Published online: 30 Jan 2013

Figures & data



Reprints & Permissions

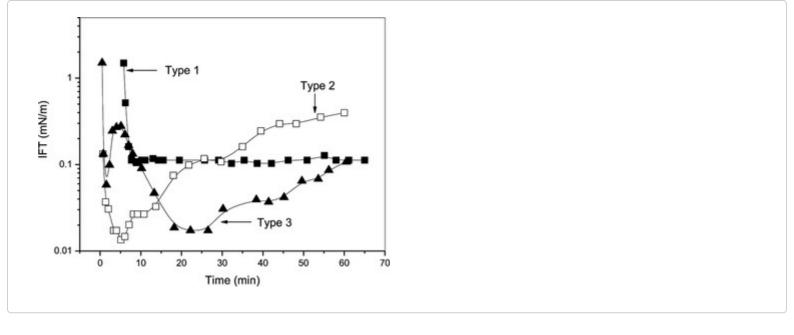
Read this article



Abstract

Full Article

The dynamic interfacial tensions between offshore crude oil and different types of EOR surfactants were investigated by spinning drop method at 65 degree under the condition of weak base (pH \sim 8) in the present work. Effects of surfactant concentration on the dynamic interfacial tension were investigated. In the presence of weak alkali, the active components of crude oil can react at the interface to produce surface-active species in situ. The interactions among the added surfactants, the petroleum active components and in situ produced surface-active species together determine the dynamic interfacial tension behaviors, whose curves show "L", "V," and "W" shapes, respectively. Surfactant type and concentration play the crucial roles on dynamic interfacial tension behaviors.



Keywords:

Crude oil dynamic interfacial tension enhanced oil recovery surfactant

Acknowledgements

The authors thank financial supports from the National Science & Technology Major Project (2011ZX05011-004) and National High Technology Research and Development Program (2008AA092801) of China.

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources by email



Sign me up











Accessibility



Copyright © 2025 Informa UK Limited Privacy policy Cookies Terms & conditions



Registered in England & Wales No. 01072954 5 Howick Place | London | SW1P 1WG