

5th Delft Summer School on

3 - 7 July 2017, Department of Geosciences and Engineering, Delft, The Netherlands

Wettability and Low-Salinity Water Flooding

This school covers the basics of wettability and low-salinity waterflooding. The physics/chemistry of low-salinity water injection is discussed from pore-level mechanisms to field-scale application, with an emphasis on surface chemistry, relative-permeability measurements, practical reservoir-engineering design tools, and fitting simulation parameters to laboratory and field data. The concept of wettability and the effect of salinity on the nature of rock-fluid interactions, and relevance of these complex phenomena to field-scale performance are also presented.

Instructors

Prof. Pavel Bedrikovetsky (Adelaide University)
Dr. Patrick Brady (Sandia National Laboratories)
Prof. George Hirasaki (Rice University)
Dr. Shehadeh Masalmeh (Shell)
Prof. William Rossen (Delft University of Technology)

Topics Covered

- Thermodynamics of wettability
- Oil-recovery mechanisms of low-salinity waterflooding
- SCAL measurements for low-salinity waterflooding
- Mineral/Oil surface chemistry
- Well Injectivity during (low-salinity) water injection
- Fractional-flow analysis of low salinity waterflooding

Registration fee

- \$2500 attendees from industry
- \$1000 academic staff and Post doc researchers
- \$600 PhD students and Post doc researchers

We can admit limited number of participants. People who register earlier will have priority. Registration deadline is 15 April 2017.

For more information, visit www.delftsummerschool.citg.tudelft.nl

Sponsored by:



Registration

For registration please send an email to delftsummerschool-citg@tudelft.nl

Instructors:

Pavel Bedrikovetsky is Professor of Petroleum Engineering at the University of Adelaide. He authored a seminal book on reservoir engineering and over 200 papers in academic journals and SPE. His research covers (low-salinity) waterflood, formation damage and EOR. He holds an MSc in Applied Mathematics, PhD in Fluid Mechanics and DSc in Reservoir Engineering, all from Moscow Gubkin Oil-Gas University. In 1991-1994 Pavel was a Visiting Professor at Delft University of Technology and at Imperial College of Science and Technology. Since 1994 he is a Petrobras Staff Consultant. He has 40 years of industrial experience in Russia, Europe, Brazil and Australia. He served as Section Chairman, short course instructor and Program Committee member at numerous SPE Conferences. Pavel is 2008-2009 and 2016-2017 SPE Distinguished Lecturer.



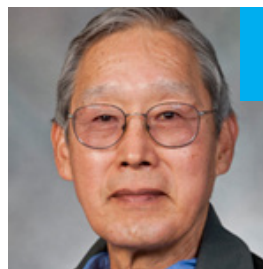
Prof. Pavel
Bedrikovetsky
University of Adelaide



Patrick V. Brady
Senior Scientist Sandia
National Laboratories

Patrick V. Brady is a Senior Scientist at Sandia National Laboratories in Albuquerque, New Mexico, USA. He received his Bachelors and Ph.D. degrees in Geology from the University of California at Berkeley and Northwestern University, respectively, and did a Post-doc at ETH-EAWAG, Dübendorf, Switzerland. He has authored or co-authored several dozen peer-reviewed journal articles, books and book chapters, as well as 16 patents, in the fields of EOR, mineral surface chemistry, and geochemistry. His present focus is mineral/oil surface chemistry controls over wettability alteration and enhanced oil recovery. He joined Sandia in 1993 and is also adjunct Assistant Professor of Civil and Environmental Engineering at New Mexico Institute of Mining and Technology, Socorro, New Mexico (since 1998).

George J. Hirasaki had a 26-year career with Shell Development and Shell Oil Companies before joining the Chemical Engineering faculty at Rice University in 1993. At Shell, his research areas were reservoir simulation, enhanced oil recovery, and formation evaluation. At Rice, his research interests are in NMR well logging, reservoir wettability, surfactant enhanced oil recovery, foam mobility control, gas hydrate recovery, asphaltene deposition, and emulsion separation. He received the SPE Lester Uren Award in 1989. He was named an Improved Oil Recovery Pioneer at the 1998 SPE/DOE IOR Symposium. He was the 1999 recipient of the Society of Core Analysts Technical Achievement Award. He is a member of the National Academy of Engineers.



Prof. G.J. Hirasaki
Rice University



Shehadeh Masalmeh
EOR and SCAL
Expert with ADNOC

Shehadeh Masalmeh is currently working as an EOR and SCAL Expert with ADNOC. Previously, he worked as a principal EOR reservoir engineer at Shell Technology Oman. Masalmeh holds a PhD in Physics from Leiden University and joined Shell in 1997, where he worked in the SCAL team and then had several international assignments. His research interests include fluid flow in porous media, wettability, hysteresis, and Chemical and Gas EOR. Masalmeh has authored and co-authored more than 50 papers for symposiums and journals and he holds several patents. Masalmeh is Shell principal technical expert in SCAL and subject-matter expert in EOR. Masalmeh is the recipient of the 2015 SPE Regional (Middle East) Reservoir Description and Dynamics Award.

William R. Rossen is Professor in Reservoir Engineering in the Department of Geoscience and Engineering, Delft University of Technology. He has more than 90 journal publications and has delivered invited lectures and taught courses worldwide. Prof. Rossen's current research concerns use of foams for diverting fluid flow in porous media, modeling complex transport processes in networks, and understanding flow in naturally fractured geological formations. Prof. Rossen was named Best Instructor at Delft University of Technology in 2011. In 2012 he was named an IOR Pioneer at the SPE/DOE Symposium on Improved Oil Recovery, Tulsa, OK, USA. He is a Distinguished Member of SPE.



Prof. W.R. Rossen
Delft University of
Technology

Organizing committee

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