

2010 SPE Improved Oil Recovery Symposium

Changes/additions after 08 April 2010 may not be reflected

Monday, 26 April 10:30 to 12:00

Madrid I

POLYMERFLOODING I

Session Chairpersons: David Smith, Occidental Permian
Stan McCool, University of Kansas

- 10:30 129200 **New Insights Into Polymer Rheology in Porous Media** R.S. Seright, T. Fan, K. Wavrik, New Mexico Tech; R.D. Balaban, University Federal Rio Grande do Norte
- 11:00 129927 **Propagation of Colloidal Dispersion Gels in Laboratory Corefloods** K. Spildo, A. Skauge, T. Skauge, CIPR/Uni Research
- 11:30 129884 **How to Get the Best Out of Hydrophobically Associative Polymers for IOR? New experimental insights** G. Dupuis, D. Rousseau, R. Tabary, Institut Francais du Petrole; B. Grassl, IPREM/EPCP

Alternate

- 129890 **The Effect of Redox Potential and Metal Solubility on Oxidative Polymer Degradation** D. Levitt, W.S. Slaughter, G.A. Pope, University of Texas at Austin; S. Jouenne, Total Petrochemicals

Monday, 26 April 10:30 to 12:00

Madrid II

HEAVY OIL NONTHERMAL

Session Chairpersons: Betty Felber, Consultant
Christopher Reddick, BP

- 10:30 129914 **Emulsion Flooding of Heavy Oil** R. Kumar, E. Dao, K.K. Mohanty, University of Texas at Austin
- 11:00 129902 **Enhanced Oil Recovery of Viscous Oil by Injection of Water-in-Oil Emulsion Made With Used Engine Oil** X. Fu, D.D. Mamora, Texas A&M University
- 11:30 130096 **Effect of Reservoir Wettability on Performance Characteristics of VAPEX Process** N. Rezaei, O. Mohammadzadeh, R. Parsaei, I. Chatzis, University of Waterloo

Monday, 26 April 10:30 to 12:00

Madrid III

IOR STRATEGIES

Session Chairpersons: Mark Holtz, Praxair
Baosheng Liang, Chevron

- 10:30 129768 **Development of Improved Hydrocarbon Recovery Screening Methodologies** J.L. Dickson, A. Leahy-Dios, ExxonMobil Upstream; P.L. Wylie, Mobil Producing Nigeria
- 11:00 129989 **Field Applications of Behind-Pipe Saturation Evaluation in a Miscible**

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- 11:30 129728 **CO₂ Flood** R.G. Hughes, Louisiana State University; S. Amadi, ConocoPhillips; D. D'Souza, Denbury Resources
Swelling/Extraction Test of a Small Sample Size for Phase Behavior Study J. Tsau, L.H. Bui, G. Willhite, University of Kansas

Monday, 26 April 10:30 to 12:00

Seville II

RESERVOIR CHARACTERIZATION

Session Chairpersons: Andrew Cockin, BP
James Smith, Devon Energy Corporation

- 10:30 129974 **Investigations of Pore-Scale Mixed Wettability** M. Kumar, A. Fogden, T. Senden, M.A. Knackstedt, Australian National University
11:00 129098 **Identifying Reservoir Pathways in a Fractured Dolomitic Heavy Oil Reservoir** S. Joshi, E. Thabet, Y. Abugreen, Schlumberger; M.A. Samir, W. Hassan, M. Omara, Scimitar Production Egypt
11:30 129965 **Application of the Multiwell Productivity Index-Based Method to Evaluate Interwell Connectivity** D. Kaviani, University of Calgary; P.P. Valko, Texas A&M University; J.L. Jensen, University of Calgary

Monday, 26 April 13:30 to 17:00

Madrid I

POLYMERFLOODING II

Session Chairpersons: Hossein Kazemi, Colorado School of Mines
Paul Willhite, University of Kansas

- 13:30 129971 **Development of a Viscoelastic Property Database for EOR Polymers** D.H. Kim, S. Lee, C.H. Ahn, C. Huh, G.A. Pope, University of Texas at Austin
14:00 129756 **Improved Oil Recovery Using Thermally and Chemically Protected Compositions Based on Co- and Ter-Polymers Containing Acrylamide** N. Gaillard, B. Giovannetti, C. Favero, SNF SAS
14:30 129798 **Accounting for Heterogeneity in Scale-Up of Apparent Polymer Viscosity for Field Scale Application** J.Y. Leung, S. Srinivasan, C. Huh, University of Texas at Austin
15:30 129227 **Research on Reutilization Technology of Residual Polymer in Formation After Polymer Flooding** C. Dai, Q. You, F.Y. Wang, F. Zhao, China University of Petroleum; P. Shuler, ChemEOR
16:00 129910 **Inaccessible Pore Volume of Associative Polymer Floods** M. Pancharoen, Stanford University; M.R. Thiele, Streamsim Technologies; A.R. Kavscek, Stanford University
16:30 129899 **Potential for Polymer Flooding Reservoirs With Viscous Oils** R.S. Seright, New Mexico Petroleum Recovery Research Center

Alternate

- 129926 **A Designer Water Process for Offshore Low-Salinity and Polymer**

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Flooding Applications S.C. Ayirala, E. Uehara-Nagamine, A.N. Matzakos, R.W. Chin, P.H. Doe, P. Van den Hoek, Shell International E&P

Monday, 26 April 13:30 to 17:00

Madrid II

HEAVY OIL THERMAL I

Session Chairpersons: Mohammad Fassihi, BHP Billiton
Sanjay Srinivasan, University of Texas at Austin

- 13:30 129686 Reservoir Simulation of Steam Fracturing in Early Cycle cyclic Steam Stimulation** M. Cokar, M. Kallos, I.D. Gates, University of Calgary
- 14:00 129904 Analytical Formulae for In-Situ Combustion** A.A. Mailybaev, Institute of Mechanics, Moscow State Lomonosov University; J. Bruining, Delft University of Technology; D. Marchesin, Instituto Macional de Matematica pura e Aplicado
- 14:30 129730 Multiphase Fluid Flow Simulation of Heavy Oil Recovery by Electromagnetic Heating** M.A. Carrizales, L.W. Lake, R.T. Johns, University of Texas at Austin
- 15:30 129660 A Comprehensive Kinetic Theory to Model Thermolysis, Aquathermolysis, Gasification, Combustion, and Oxidation of Athabasca Bitumen** P.R. Kapadia, M.S. Kallos, I.D. Gates, University of Calgary
- 16:00 128621 Laboratory Evaluation of a Chemical Additive to Increase Production in Steam Assisted Gravity Drainage** P. Srivastava, J. Debord, V. Sadetsky, B.J. Stefan, Baker Hughes; B. Orr, Nexen
- 16:30 129694 One Relationship Between Completion Design, Reservoir Characteristics, and Steam Conformance Achieved in Steam-Based Recovery Processes Such as SAGD** W. Wei, I.D. Gates, University of Calgary

Alternate

- 129963 Simulation of Expanding Solvent: Steam Assisted Gravity Drainage in a Field Case Study of a Bitumen Oil Reservoir** J. Akinboyewa, Colorado School of Mines; S.K. Das, Marathon Oil Company; Y. Wu, H. Kazemi, Colorado School of Mines

Monday, 26 April, 13:30 to 17:00

Madrid III

MEOR

Session Chairpersons: Dane Cantwell, Legado Resources
Larry Lake, University of Texas at Austin

- 1330 129657 Microbial EOR: Critical Aspects Learned From the Lab** S.C. Jackson, A.W. Alsop, E.R. Choban, B. D'Schille, R.D. Fallon, J. Fisher, E.R. Hendrickson, DuPont; L. Hnatow, formerly DuPont; S. Keeler, A. Luckring, R. Nopper, J. Norvell, M. Perry, B. Rees, D. Suchanec, S. Wolstenholme, DuPont; D. Thrasher, G. Pospisil, BP

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- 1400 129742 **MEOR Success in Southern California** B. Zahner, Venoco; A. Sheehy, B. Govreau, Titan Oil Recovery
- 1430 129930 **A Microbial Enhanced Oil Recovery Field Pilot in a Brazilian Onshore Oilfield** R. Reksidler, A.G. Volpon, L.F. Barbosa, C.G. Brasileiro, H.C. Nicolau, J.A. Calasans, Petrobras
- 1530 129701 **MEOR From Lab to Field** D.R. Thrasher, D.A. Puckett, A. Davies, G. Beattie, G. Pospisil, G. Boccardo, BP; S.C. Jackson, DuPont
- 1600 129707 **Effect of Wettability and Interfacial Tension on Microbial Improved Oil Recovery With Rhodococcus sp. 094** M. Shabani Afrapoli, S. Alipour, O. Torsaeter, Norwegian University of Science and Technology

Monday, 26 April, 13:30 to 17:00

Seville II

AIR, ENRICHED GAS

Session Chairpersons: Sam Cho, Swift Energy Company
Mark Holtz, Praxair

- 1330 129691 **Impact of Distillation on the Combustion Kinetics of High-Pressure Air Injection** Y. Barzin, R.G. Moore, S.A. Mehta, M.G. Ursenbach, F. Tabasinejad, University of Calgary
- 1400 127719 **Experimental and Numerical Modeling of Three-Phase Flow Under High-Pressure Air Injection Reservoir Conditions** E. Niz Velasquez, R.G. Moore, K.C. Van Fraassen, S.A. Mehta, M.G. Ursenbach, University of Calgary
- 1430 129882 **Water Alternating High-Pressure Air Injection** D.W. Van Batenburg, A.H. De Zwart, Shell Intl. E&P Company; M. Doush, Al Furat Petroleum Company
- 1530 129837 **The Mechanism of Oil Recovery by Water-Alternating-Gas Injection at Near-Miscible Conditions in Mixed Wet Systems** K.S. Sorbie, M.I. Van Dijke, Heriot-Watt University
- 1600 129945 **Prediction of Three-Phase Gravity Drainage From Two-Phase Capillary Pressure Curves** M. Mirzaei, D.A. DiCarlo, M. Ashouripashaki, H. Dehghanpour, B. Aminzadeh, University of Texas at Austin

Tuesday, 27 April, 08:30 to 12:00

Madrid I

ALKALINE SURFACTANT I

Session Chairpersons: Akhil Datta-Gupta, Texas A&M University
Paul Willhite, University of Kansas

- 0830 129661 **Mechanistic Modeling of Chemical Transport in Naturally-Fractured Oil Reservoirs** Y. Abbasi Asl, G.A. Pope, M. Delshad, University of Texas at Austin
- 0900 129769 **Application of Internal Olefin Sulfonates and Other Surfactants in EOR. Part 2: The Design and Execution of an ASP Field Test** M.A. Buijse, R.M. Prelicz, Shell International E&P; J.R. Barnes, Shell Global Solutions; C. Cosmo, Salym Petroleum Development

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- 0930 129923 **A New Process for Manufacturing and Stabilizing High-Performance EOR Surfactants at Low Cost for High-Temperature, High-Salinity Oil Reservoirs** S. Adkins, P.J. Liyanage, W.P. Gayani, P. Arachchilage, T. Mudiyansele, U. Weerasooriya, G.A. Pope, University of Texas at Austin
- 1030 129865 **An Integrated Workflow for Chemical EOR Pilot Design** P. Moreau, M. Morvan, P. Rivoal, B. Bazin, F. Douarache, J-F. Argillier, R. Tabary, IFP
- 1100 129978 **Low-Cost, High-Performance Chemical Enhanced Oil Recovery** H. Yang, C. Britton, P.J. Liyanage, S. Solairaj, D.H. Kim, Q. Nguyen, U. Weerasooriya, G. Pope, University of Texas

Tuesday, 27 April, 08:30 to 12:00

Madrid II

HEAVY OIL THERMAL II

Session Chairpersons: Gaoming Li, University of Tulsa
Craig Walters, Anadarko Petroleum Corporation

- 0830 130050 **Interfacial Stability and Displacement Efficiency in Thermal Solvent Processes** J. Sharma, I.D. Gates, University of Calgary
- 0900 129705 **The Displacement of Heavy Oil From Diatomite Using Hot Water and Steam** J.K. Dietrich, Dietrich Corporation
- 0930 129847 **Improving Steam-Assisted Gravity Drainage Using Mobility Control Foams: Foam-Assisted SAGD** Q. Chen, M. Gerritsen, A.R. Kovscek, Stanford University
- 1030 129869 **Compositional Simulation of In-Situ Combustion EOR: A Study of Process Characteristics** P. Jain, E.H. Stenby, N.V. Solms, Technical University of Denmark
- 1100 129909 **The influence of Salt Concentration in Injected Water on Low-Frequency Electrical-Heating Assisted Bitumen Recovery** I. Bogdanov, J. Torres, H.A. Akhlaghi, A.M. Kamp, CHLOE, University of Pau
- 1130 130011 **Pore-Level Visual Investigation of Heavy Oil and Bitumen Recovery Using Hybrid SAGD Process** O. Mohammadzadeh, N. Rezaei, I. Chatzis, University of Waterloo

Alternate

- 129739 **Numerical Coupling of Geomechanical and Effects During Steam Injection in SAGD** S. Zandi, Institut Francais du Petrole; G. Renard, J. Nauroy, N. Guy, M. Tijani, ENSMP

Tuesday, 27 April, 08:30 to 12:00

Madrid III

LOW SALINITY

Session Chairpersons: Todd Buikema, BP
Ken Oglesby, IMPACT Technologies

- 0830 129692 **Demonstration of Low-Salinity EOR at Interwell Scale, Endicott Field, Alaska** J.C. Seccombe, A. Lager, G. Jerauld, B. Jhaveri, T. Buikema, S.

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- 0900 129564 **Low-Salinity Water Flooding, Proof of Wettability Alteration on a Field-Wide Scale** Bassler, J. Denis, K. Webb, A. Cockin, E. Fueg, BP
P. Vledder, J.C. Fonseca, T. Wells, I. Gonzalez, D. Ligthelm, Shell
- 0930 129722 **Low-Salinity Oil Recovery: Increasing Understanding of the Underlying Mechanisms** S.Y. Lee, BPI; K.J. Webb, I. Collins, A. Lager, BP; S. Clarke, M. O'Sullivan, A. Routh, X. Wang, BPI
- 1030 129877 **Snorre Low-Salinity Water Injection, Core Flooding Experiments and Single-Well Field Pilot** K. Skrettingland, Statoil; T. Holt, Sintef Petroleum Research; M.T. Tweheyo, I. Skjevraak, Statoil
- 1100 129833 **A Proposed Pore-Scale Mechanism for How Low Salinity Waterflooding Works** K.S. Sorbie, Heriot-Watt University; I. Collins, BP
- 1130 129976 **A Comprehensive EOR Study Using Low-Salinity Water in Sandstone Reservoirs** M.B. Alotaibi, R.M. Azmy, H.A. Nasr-El-Din, Texas A&M University
- Alternate
129767 **Chemical Mechanism of Low-Salinity Water Flooding in Sandstone Reservoirs** T. Austad, A. Rezaeidoust, T. Puntervold, University of Stavanger

Tuesday, 27 April, 08:30 to 12:00

Seville II

CASE STUDIES

Session Chairpersons: Mohammad Fassihi, BHP Billiton
James Smith, Devon Energy Corporation

- 0830 129796 **Selective Polymer Treatments Improve Oil Recovery in Five Mature Southern Oklahoma Waterfloods** J.T. Portwood, Eclipse IOR Services; S.H. Lackey, S.W. Abel, Citation Oil and Gas Corporation
- 0900 129191 **Application of Novel Chemical and Mechanical IOR Techniques to Northwest Louisiana Fields** J. Reynolds, Parker Oil Company; P.D. Berger, Oil Chem Technologies
- 0930 126029 **Application of Chemical Tracers in IOR: A Case History** M. Asadi, ProTechnics; G.M. Shook, Chevron ETC
- 1030 130113 **EOR: Current Status and Opportunities** E.J. Manrique, C. Thomas, R. Ravikiran, M. Izadi, M. Lantz, J. Romero, Tiorco; V. Alvarado, University of Wyoming
- 1100 129749 **Modeling and Assessment of Wettability Alteration Processes in Fractured Carbonates Using Dual Porosity and Discrete Fracture Approaches** M. Farhadinia, M. Delshad, University of Texas at Austin

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Madrid I

ALKALINE SURFACTANT II

Session Chairpersons: Sunil Kokal, Saudi Aramco
Gerard Renard, Institut Francais du Petrole

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- 1330 129840 **Application of Gas for Mobility Control in Chemical EOR in Problematic Carbonate Reservoirs** M. Srivastava, Q.P. Nguyen, University of Texas at Austin
- 1400 129086 **Experimental Investigation of Caustic Steam Injection for Heavy Oils** R.M. Madhavan, International Gas Consulting; D.D. Mamora, Texas A&M University
- 1430 130007 **The Role of Co-Solvents and Co-Surfactants in Making Chemical Floods Robust** V. Sahni, R.M. Dean, C. Britton, D.H. Kim, U. Weerasooriya, G.A. Pope, University of Texas at Austin
- 1530 129879 **Chemical Degradation of Polyacrylamide Polymers Under Alkaline Conditions** D. Levitt, Total Petrochemicals; G.A. Pope, University of Texas; S. Jouenne, Total Petrochemicals
- 1600 129550 **Non-Estrogenic Alkylphenol Derivatives for EOR** P.D. Berger, C.H. Lee, Oil Chem Technologies
- 1630 129766 **Application of Internal Olefin Sulfonates and Other Surfactants in EOR. Part 1: Structure—Performance Relationships for Selection at Different Reservoir Conditions** J.R. Barnes, H. Dirkzwager, J.R. Smit, J.P. Smit, R.C. Navarrete, B.H. Ellison, M.A. Buijse, Shell Global Solutions

Tuesday, 27 April, 13:30 to 17:00

Madrid II

CO₂ I

Session Chairpersons: Lanny Schoeling, Kinder Morgan CO₂ Company
Ken Oglesby, IMPACT Technologies

- 1330 129846 **Mechanisms for High-Displacement Efficiency for Low-Temperature CO₂ Floods** R. Okuno, Japan Petroleum Exploration Company; R.T. Johns, K. Sepehrnoori, University of Texas at Austin
- 1400 129666 **Scale Dependence of Diffusion in Naturally-Fractured Reservoirs for CO₂ Injection** S. Alavian, C.H. Whitson, Norwegian University of Science and Technology
- 1430 129709 **Limitations of Current Method of Characteristic Methods to Predict MMPs for Complex Gas/Oil Displacement** K. Ahmadi, R.T. Johns, University of Texas at Austin; K. Mogensen, Maersk Oil Qatar; R. Noman, Qatar Petroleum
- 1530 129710 **Laboratory Investigations of CO₂ Near-Miscible Application in Arbuckle Reservoir** L.H. Bui, J. Tsau, G. Willhite, University of Kansas
- 1600 129925 **Nanoparticle-Stabilized Supercritical CO₂ Foams for Potential Mobility Control Applications** D. Espinosa, F. Caldelas, K. Johnston, S.L. Bryant, C. Huh, University of Texas at Austin
- 1630 129907 **CO₂-Soluble Surfactants for Improved Mobility Control** D. Xing, B. Wei, K. Trickett, A. Mohamed, J. Eastoe, Y. Soong, R. Enick University of Bristol; B. Wei, University of Pittsburgh

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Madrid III

2010 SPE Improved Oil Recovery Symposium

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NANOTECHNOLOGY

Session Chairpersons: Larry Lake, University of Texas at Austin
Sanjay Srinivasan, University of Texas at Austin

- 1330 129885 **Nanoparticle-Stabilized Emulsions for Applications in Enhanced Oil Recovery** T. Zhang, D. Davidson, S.L. Bryant, C. Huh, University of Texas at Austin
- 1400 129933 **Nano-Sized Particles for EOR** T. Skauge, K. Spildo, A. Skauge, Uni CIPR
- 1430 129531 **How EOR Can be Transformed by Nanotechnology** A. Fletcher, Parr Systems; J. Davis, University of Bristol
- 1530 129850 **Effects of Magnetic Field on the Motion of Multiphase Fluids Containing Paramagnetic Particles in Porous Media** M. Prodanovic, S. Ryoo, A. Rahmani, R. Kuranov, C. Kotsmar, T. Milner, K.P. Johnston, S.L. Bryant, C. Huh, University of Texas at Austin
- 1600 129887 **Transport and Retention of Aqueous Dispersions of Paramagnetic Nanoparticles in Reservoir Rocks** H. Yu, C. Kotsmar, K.Y. Yoon, D.R. Imgram, K.P. Johnston, S.L. Bryant, C. Huh, University of Texas at Austin
- 1630 129901 **Interfacially Active SWNT/Silica Nanohybrid Used in Enhanced Oil Recovery** L.C. Villamizar, P. Lohateeraparp, J.H. Harwell, D.E. Resasco, B. Shiao, University of Oklahoma

Tuesday, 27 April, 13:30 to 17:00

Seville II

CONFORMANCE

Session Chairpersons: Todd Buikema, BP
David Smith, Occidental Permian

- 1330 129967 **Results of a Three-Well Waterflood Sweep Improvement Trial in the Prudhoe Bay Field Using a Thermally Activated Particle System** M.E. Husband, D.S. Ohms, H. Frampton, BP EPTG; S.R. Carhart, B.H. Carlson, BP; J. Morgan, Jimtech; K. Chang, Nalco
- 1400 129732 **Deep Conformance Control by a Novel Thermally-Activated Particle System To Improve Sweep Efficiency in Mature Waterfloods of the San Jorge Basin** J.L. Mustoni, Pan American Energy; C. Norman, Tiorco ; P. Denyer, BP
- 1430 129908 **Performed Particle Gel Transport Through Open Fractures and Its Effect on Water Flow** H. Zhang, B. Bai, Missouri University of Science and Technology
- 1530 129940 **Water Shut-off Polymer Systems: Design and Efficiency Evaluation Based on Experimental Studies** I. Vega, W. Morris, J.L. Robles, H. Peacock, San Antonio Internacional; A. Marin, SNF Floerger
- 1600 129663 **Coning Control and Recovery Improvement Using In-Situ Water Drainage/Injection in Bottom-Water-Drive Reservoir** L. Jin, A.K. Wojtanowicz, Louisiana State University
- 1630 129960 **New Gel Aggregates for Water Shut-Off Treatments** G. Lei, China University of Petroleum; L. Li, H.A. Nasr-El-Din, Texas A&M University

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Alternate

- 129848 **Water Shut-Off With Polymer Gels in a High-Temperature Horizontal Gas Well: A Success Story** G.A. Al-Muntasheri, Saudi Aramco; L. Sierra, Halliburton; F. Garzon, J.D. Lynn, Saudi Aramco; G. Izquierdo, Halliburton

Wednesday, 28 April, 08:30 to 12:00

Madrid I

SURFACTANT POLYMER

Session Chairpersons: Akhil Datta-Gupta, Texas A&M University
Sunil Kokal, Saudi Aramco

- 0830 129675 **Surfactant Systems for IOR in High-Temperature, High-Salinity Environments** M. Puerto, G.J. Hirasaki, C.A. Miller, Rice University; J.R. Barnes, Shell Global Solutions
- 0900 129892 **Evaluation and Manufacturing Quality Control of Chemicals for Surfactant Flooding** P. Zhao, A.J. Howes, V. Dwarakanath, S. Thach, T. Malik, A. Jackson, O. Karazincir, C. Campbell, J. Waite, Chevron
- 0930 129763 **Experimental Study of Foam Flow in Fractured Oil-Wet Limestone for Enhanced Oil Recovery** A. Haugen, M.A. Ferno, A. Graue, University of Bergen; H.J. Bertin, Trefle ENSAM
- 1030 129867 **Single-Well Simulation Study of Form EOR in the Gas Cap Oil of the Naturally-Fractured Cantarell Field** M. Abbaszadeh, Innovative Petrotech Solutions, University of Texas; F. Rodriguez-de la Garza, Pemex; C. Yuan, G.A. Pope, Innovative Petrotech Solutions, University of Texas
- 1100 129175 **A Novel Ultralow Interfacial Tension Foam Flooding Agent to Enhance Heavy Oil Recovery** W. Kang, S. Liu, L.W. Meng, D. Cao, H. Fan, China University of Petroleum
- 1130 127391 **Optimized Surfactant IFT and Polymer Viscosity for Surfactant-Polymer Flooding in Heterogeneous Foundations** Y. Wang, F. Zhao, China University of Petroleum Beijing; B. Bai, Missouri University of Science and Tech; J. Zhang, W. Xiang, X. Li, W. Zhou, China National Offshore Oil Corporation

Wednesday, 28 April, 08:30 to 12:00

Madrid II

CO₂ II

Session Chairpersons: Dane Cantwell, Legado Resources
Craig Walters, Anadarko Petroleum Corporation

- 0830 129601 **Modeling of Transport of a CO₂-Foaming Agent During CO₂-Foam Processes in a Fractured Chalk Rock** J. Zuta, I. Fjelde, B. Roman, IRIS; L.H. Vartdal, O. Henrik, University of Stavanger
- 0900 129760 **In-Situ Phase Identification and Saturation Determination in Carbon Dioxide Flooding of Water Flooded Chalk Using X-ray Computed Tomography** B. Niu, W. Yan, A. Shapiro, E.H. Stenby, Technology University of Denmark
- 0930 129966 **Simultaneous Water- and Gas-Injection Performance Under Loss of**

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- 1030 129893 **Miscibility** R. Ghanbarnezhad, L. Lake, University of Texas at Austin
Improved Chemical Flood Efficiency by In-Situ CO₂ Generation B. Shiau, T. Hsu, J.H. Harwell, University of Oklahoma
- 1100 128205 **Hydrodynamic Trapping of CO₂ Geosequestered in Saline Aquifers**
R.G. Larkin, R.G. Larkin Consulting
- 1130 129844 **General Strategy for Stability Testing and Phase-Split Calculations in Two and Three Phases** Z. Li, A. Firoozabadi, Z. Li, RERI, Yale University

Wednesday, 28 April, 08:30 to 12:00

Madrid III

SIMULATION

Session Chairpersons: Sam Cho, Swift Energy Company
Gaoming Li, University of Tulsa

- 0830 129658 **Control of Numerical Dispersion in Simulation and Augmented Waterflooding** A.M. Al-Sofi, M.J. Blunt, Imperial College
- 0900 129604 **Probabilistic History Matching With the Capacitance-Resistance Model in Waterfloods: A Precursor to Numerical Modeling** M. Sayarpour, Chevron ETC; S. Kabir, Hess Company; K. Sepehrnoori, L.W. Lake, University of Texas at Austin
- 0930 129724 **Interpreting Single Well Chemical Tracer Tests** G. Jerauld, H. Mohammadi, K.J. Webb, BP
- 1030 129685 **History Matching Channelized Reservoirs Using Reversible Jump Markov Chain Monte Carlo Methods** J. Xia, A. Mondal, Y. Efendiev, B. Mallick, A. Datta-Gupta, Texas A&M University
- 1100 129774 **Analytical Upgrading of Geocellular Model To Preserve Dynamic Flow Behavior in the Presence of Gravity Dominated Displacement** A. Rittirong, M.G. Kelkar, University of Tulsa
- 1130 129183 **A New Adaptively Scaled Production Data Integration Approach Using the Discrete Cosine Parameterization** E. Bhark, B. Jafarpour, A. Datta-Gupta, Texas A&M University

Wednesday, 28 April, 08:30 to 12:00

Seville II

WETTABILITY MODIFICATION

Session Chairpersons: Betty Felber, Consultant
Lanny Schoeling, Kinder Morgan CO₂ Company

- 0830 129178 **Fractured Carbonates: A Methodology To Evaluate Surfactant Performances** M. Chabert, M. Morvan, Rhodia; R. Tabary, Institut Francais du Petrole
- 0900 129919 **Pore-Network Prediction of Residual Oil Saturation Based on Oil Layer Drainage in Mixed-Wet Systems** A.V. Ryazanov, M.I. Van Dijke, K.S. Sorbie, Heriot-Watt University
- 0930 129542 **Effect of Clay, Brine and Chemical Treatment in the Wettability Alteration of Berea Rock** S. Wu, A. Firoozabadi, Reservoir Engineering Research Institute

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- 1030 129668 **Surfactant-Induced Spreading and Wettability Effects in Condensate Reservoirs** Y. Zheng, D.N. Rao, Louisiana State University
- 1100 129678 **Comparison of the Methods for Drainage Relative Permeability Estimation From Displacement Tests** F. Hussain, Y. Cinar, University of New South Wales; P.G. Bedrikovetsky, University of Adelaide
- 1130 129972 **Wettability Challenges in Carbonate Reservoirs** M.B. Alotaibi, R.A. Nasralla, H.A. Nasr-El-Din, Texas A&M University

Alternate

- 129962 **Two-Phase and Three-Phase Saturation Routes and Relative Permeability During Fast Drainage** H. Dehghanpour, D.A. DiCarlo, B. Aminzadeh, M. Mirzaei, University of Texas at Austin

**Wednesday, 28 April, 08:30 to 12:00
Room**

BEST OF PARIS

Session Chairpersons: Bill Lawson, The University of Tulsa
Thais McComb, Chevron

- 0830 B 17 **Automated History Matching of Combustion Experiments Using the Ensemble Kalman Filter** N. Hoogerheide, Delft University of Technology; D.W. van Batenburg, A.H. De Zwart, S.G. Douma, D.R. Brouwer, Shell; E.S.J. Rudolph, D. Jansen, Delft University of Technology & ShellExperiments Using the Ensemble Kalman Filter
- 0900 B 14 **4D Seismic Modelling Applied to SAGD Process Monitoring** O. Lerat, F. Adjemian, A. Auvinet, A. Baroni, E. Bemer, R. Eschard, G. Etienne, G. Renard, G. Servant, IFP; S. Rodriguez, E. Bathellier, E. Forgues, CGGVeritas
- 0930 B 19 **Reservoir Surveillance Technologies for Thermal EOR Projects** D.F. Hohl, J. Lopez, R. Bos, K.P. Maron, Shell
- 1030 A 30 **Cyclic Solvent Injection – Unlocking the Oil Left Behind after CHOPS** J.M. Alvarez, R. Coates, T. Hamida, R. Sawatzky, Alberta Research Council)
- 1100 B 28 **Single-well Tracer Tests (SWTT) Experience in the Mature Handil Field-Evaluating Stakes before Launching an EOR Project** E C. Romero, F. Aubertin, E. Cassou, P. Chenevière, Total E&P Indonesia; J.S. Tang, JTang Tracer; J. Odiorne, Chemical Tracers of Texas; P. Cordier, J. Batias Total