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Publications:

Influence of Adsorption and Capillary Pressure on Phase Equilibria Inside Shale Reservoirs
Publication: Research - peer-review › Journal article – Annual report year: 2018

Modeling of Shale Gas Adsorption and its Influence on Phase Equilibrium
Publication: Research - peer-review › Journal article – Annual report year: 2018

Near-wellbore modeling of a horizontal well with Computational Fluid Dynamics
Publication: Research - peer-review › Journal article – Annual report year: 2018

RAND-Based Formulations for Isothermal Multiphase Flash
Publication: Research - peer-review › Journal article – Annual report year: 2018

17th International Conference on Petroleum Phase Behavior and Fouling
Publication: Research - peer-review › Editorial – Annual report year: 2017

Application of a Crossover Equation of State to Describe Phase Equilibrium and Critical Properties of n-Alkanes and Methane/n-Alkane Mixtures
Publication: Research - peer-review › Journal article – Annual report year: 2017

Calculation of Multi-phase Chemical Equilibrium by the Modified RAND Method
Publication: Research - peer-review › Journal article – Annual report year: 2017

Calculation of simultaneous chemical and phase equilibrium by the method of Lagrange multipliers
Publication: Research - peer-review › Journal article – Annual report year: 2017

Comparison of GERG-2008 and simpler EoS models in calculation of phase equilibrium and physical properties of natural gas related systems
Publication: Research - peer-review › Journal article – Annual report year: 2016
Density and Compressibility of Multicomponent n-Alkane Mixtures up to 463 K and 140 MPa
Publication: Research - peer-review › Journal article – Annual report year: 2017

Electrical Double-Layer and Ion Bridging Forces between Symmetric and Asymmetric Charged Surfaces in the Presence of Mono- and Divalent Ions
Publication: Research - peer-review › Journal article – Annual report year: 2017

Evaluation of equations of state for simultaneous representation of phase equilibrium and critical phenomena
Publication: Research - peer-review › Journal article – Annual report year: 2017

Extension of modified RAND to multiphase flash specifications based on state functions other than (T,P)
Publication: Research - peer-review › Journal article – Annual report year: 2017

General approach to characterizing reservoir fluids for EoS models using a large PVT database
Publication: Research - peer-review › Journal article – Annual report year: 2016

Heat capacity and Joule-Thomson coefficient of selected n-alkanes at 0.1 and 10 MPa in broad temperature ranges
Publication: Research - peer-review › Journal article – Annual report year: 2017

High pressure phase equilibrium of ternary and multicomponent alkane mixtures in the temperature range from (283–473) K
Publication: Research - peer-review › Journal article – Annual report year: 2017

Modeling Study of High Pressure and High Temperature Reservoir Fluids
Publication: Research › Ph.D. thesis – Annual report year: 2017

Phase Equilibrium Modeling for Shale Production Simulation
Publication: Research › Ph.D. thesis – Annual report year: 2017

Density and phase equilibrium of the binary system methane + n-decane under high temperatures and pressures
Publication: Research - peer-review › Journal article – Annual report year: 2016

General Approach to Characterize Reservoir Fluids Using a Large PVT Database
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Release of Crude Oil from Silica and Calcium Carbonate Surfaces: On the Alternation of Surface and Molecular Forces by High- and Low-Salinity Aqueous Salt Solutions
Publication: Research - peer-review › Journal article – Annual report year: 2016

The Phase Envelope of Multicomponent Mixtures in the Presence of a Capillary Pressure Difference
Publication: Research - peer-review › Journal article – Annual report year: 2016

Densities of the Binary Systems n-Hexane + n-Decane and n-Hexane + n-Hexadecane up to 60 MPa and 463 K
Publication: Research - peer-review › Journal article – Annual report year: 2015

Modeling the liquid-liquid equilibrium of petroleum fluid and polar compounds containing systems with the PC-SAFT equation of state
Publication: Research - peer-review › Journal article – Annual report year: 2015

Phase Envelope Calculations for Reservoir Fluids in the Presence of Capillary Pressure
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015
PVT modeling of reservoir fluids using PC-SAFT EoS and Soave-BWR EoS
Publication: Research - peer-review › Journal article – Annual report year: 2015

A new approach to model strain change of gelled waxy crude oil under constant stress
Publication: Research - peer-review › Journal article – Annual report year: 2014

Distribution of gas hydrate inhibitor monoethylene glycol in condensate and water systems: Experimental measurement and thermodynamic modeling using the cubic-plus-association equation of state
Publication: Research - peer-review › Journal article – Annual report year: 2014

Negative Flash for Calculating the Intersecting Key Tie lines in Multicomponent Gas Injection
Publication: Research - peer-review › Journal article – Annual report year: 2014

On petroleum fluid characterization with the PC-SAFT equation of state
Publication: Research - peer-review › Journal article – Annual report year: 2014

On solving the Rachford-Rice equation with higher order methods
Publication: Research - peer-review › Journal article – Annual report year: 2014

Thermodynamic modeling of complex systems
Publication: Research › Ph.D. thesis – Annual report year: 2015

A Comparative Study of Reduced-Variables-Based Flash and Conventional Flash
Publication: Research - peer-review › Journal article – Annual report year: 2013

Distribution of MEG and methanol in well-defined hydrocarbon and water systems: Experimental measurement and modeling using the CPA EoS
Publication: Research - peer-review › Journal article – Annual report year: 2013

Online measurement of mass density and viscosity of pL fluid samples with suspended microchannel resonator
Publication: Research - peer-review › Journal article – Annual report year: 2013

Prediction of the vapor–liquid equilibria and speed of sound in binary systems of 1-alkanols and n-alkanes with the simplified PC-SAFT equation of state
Publication: Research - peer-review › Journal article – Annual report year: 2013

Speeding up compositional reservoir simulation through an efficient implementation of phase equilibrium calculation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Study on the Application of the Tie-Line-Table-Look-Up-Based Methods to Flash Calculations in Compositional Simulations
Publication: Research - peer-review › Journal article – Annual report year: 2013

A Comparative Study of Reduced Variables Based Flash and Conventional Flash
Publication: Research › Paper – Annual report year: 2012

Approach to Improve Speed of Sound Calculation within PC-SAFT Framework
Publication: Research - peer-review › Journal article – Annual report year: 2012

Calculation of minimum miscibility pressure using fast slimtube simulation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012
Tertiary Carbon Dioxide Flooding of Low Permeable Chalk with In-Situ Saturation Determination using X-Ray Computed Tomography
Publication: Research - peer-review › Poster – Annual report year: 2010

The Influence of CO2 Solubility in Brine on Simulation of CO2 Injection into Water Flooded Reservoir and CO2 WAG
Publication: Research - peer-review › Conference article – Annual report year: 2010

Application of the CPA equation of state to reservoir fluids in presence of water and polar chemicals
Publication: Research - peer-review › Journal article – Annual report year: 2009

Coupling Miscible Flow and Geochemistry for Carbon Dioxide Flooding into North Sea Chalk Reservoir
Publication: Research › Article in proceedings – Annual report year: 2009

Measurements and Modelling of CO2 Solubility in Brine and CO2-Saturated Brine Densities at High Pressures
Publication: Research › Poster – Annual report year: 2009

Phase Identification and Saturation Determination in Carbon Dioxide Flooding of Water Flooded Chalk Using X-Ray Computed Tomography
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Phase Identification and Saturation Determination in Carbon Dioxide Flooding of Water Flooded Chalk Using X-Ray Computed Tomography
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

The Influence of CO2 Solubility in Brine on CO2 Flooding Simulation
Publication: Research › Article in proceedings – Annual report year: 2009

Capture and Storage Projects at IVC-SEP
Publication: Research - peer-review › Poster – Annual report year: 2008

The Influence of CO2 Solubility in Brine on CO2 Flooding Simulation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Comments on "Measurement and modeling of the solubility of water in supercritical methane and ethane from 310 to 477 K and pressures from 3.4 to 110 MPa"
Publication: Research - peer-review › Letter – Annual report year: 2007

Application of CPA to Reservoir Fluids in Presence of Water and Other Associating Compounds
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Application of CPA to Reservoir Fluids in Presence of Water and Other Associating Compounds
Publication: Research - peer-review › Poster – Annual report year: 2006

Application of Advanced Thermodynamic Models for Complex Fluids and Reservoirs
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Three-phase Compositional Streamline Simulation and Its Application to WAG
Publication: Research - peer-review › Paper – Annual report year: 2004

Compositional Streamline Simulation: Progress Report No. 4
Publication: Research - peer-review › Report – Annual report year: 2003
Interfacial Tension of (Methane + Nitrogen) + Water and (Carbon Dioxide + Nitrogen) + Water Systems

Projects:

Characterization of the non-uniform fluid distribution in tight petroleum reservoirs
Project: PhD

Experimental investigation of gas injection processes for enhanced oil recovery
Project: PhD

High Pressure Phase Behavior of Asymmetric Mixtures for Oil Production
Project: PhD

Analysis of reservoir water samples and injected sea water for enhanced oil recovery
Project: PhD

Estimation of Matrix Flow contribution in naturally fractured reservoirs
Project: PhD

Application of an association equation of state to enhanced oil recovery processes
Project: PhD

Computation of Simultaneous Phase and Chemical Equilibrium
Project: PhD

Compositional Simulation of Heavy Oil Production with Steam and Solvent
Project: PhD

Compositional Reservoir Simulation Involving Complex Phase Equilibria
Project: PhD

Modeling of Asphaltene systems with Association Models
Project: PhD

Study of High Pressure and High Temperature Reservoir Fluids
Project: PhD

Enhanced Oil Recovery with Application of Microorganisms
Project: PhD

Enhanced Oil Recovery with Application of Enzymes
Project: PhD

Thermodynamic modelling in oil-sea water mixtures
Project: PhD

Measurement and modelling of phase equilibrium of oil-water,polar chemicals
Project: PhD
Advanced Waterflooding in Low Permeable Carbonate Reservoirs  
Project: PhD

Multiphase flows in porous media  
Project: PhD

Enhanced Oil Recovery with Surfactant Flooding  
Project: PhD

Distribution of Complex Chemicals in Oil-Water Systems  
Project: PhD

Co2 Injection in Low Permeable Oil and Gas Reservoir  
Project: PhD