

## PREFACE

The **2018 International Symposium of the Society of Core Analysts (SCA)** was held in Trondheim, Norway between August 27<sup>th</sup> and 31<sup>st</sup>. The theme for the Symposium in 2018 was “*Unconventionals, Carbonates... What Core Analysis can do for Complex Reservoirs?*”. The symposium was attended by 210 representatives from industry, academia and organizations and 28 vendors. With a large variety of vendors, technical veterans, industry leaders, and rising young professionals, the Annual meeting of the Society of Core Analysts is a great opportunity for professional interaction, to share ideas, innovations, knowledge, best practices, products and services.

The collection of articles published in the SHS Web of conferences consists of 24 articles prepared for oral presentations. Twelve (12) proceedings presented in this symposium, published in *Petrophysics* or other journals, and (31) posters are not included in this collection. Here is the list of articles with full text available in [www.scaweb.org](http://www.scaweb.org) and/or other journals

### **Papers presented at the 2018 SCA Symposium published in other journals**

**Reconsidering Klinkenberg's Permeability Data**

*D. Ruth and R. Arabjamaloei*

**In situ saturation monitoring (ISSM) - Recommendations for Improved Processing**

*Jules Reed, Arjen Cense*

**Monitoring Core Measurements with High Resolution Temperature Arrays**

*J. J. Howard and K. Hester*

**In-Situ Investigation of Aging Protocol Effect on Relative Permeability Measurements using high throughput experimentation methods**

*M. Mascle, S. Youssef, H. Deschamps and O. Vizika*

**A review of 60 years of NMR Wettability**

*A. Valori and B. Nicot*

**Links between Geochemistry, Total Organic Carbon, Magnetic Properties and Anisotropy in Shale Core Samples from the Horn River Group, British Columbia, Canada**

*V. T. Ebufegha and D. K. Potter*

**Loading Effects on Gas Relative Permeability of a Low Permeable Sandstone**

*F. Agostini, P. Egermann, L. Jeannin, E. Portier, F. Skoczylas, and Y. Wang*

**A First Step in Evaluating the Role of Diffusion in EOR in Tight Shale Formation**

*S. T. Dang, C. H. Sondergeld, C. S. Rai, A. O. Tinni, and N. Drenzek*

**Review of the Intercept Method for Relative Permeability Correction using a Variety of Case Study Data**

*J. Reed and J. Maas*

**A New Waterflood Initialization Protocol for Pore-Scale Multiphase Flow Experiments**

*Q. Lin, B. Bijeljic, S. C. Krevor, M. J. Blunt, S. Berg, A. Coorn, H. van der Linde, A. Georgiadis, and O. B. Wilson*

**Uncertainty Quantification in Image Segmentation for Image-based Rock Physics in a Shaly-Sandstone**

*J. Howard, S. Lin, and S. Zhang*

**Capillary Desaturation Curves and Insights on Trapped Oil at the Pore Scale, in Water-Wet and Oil-Wet Sandstone**

*H. Berthet, M. Hebert, P. Andriamananjaona, S. Barbouteau, R. Farwati, R. Meftah, G. Quenault, J-P Chaulet, R. Brugidou, and R. Rivenq*

**Papers presented in Poster Sessions**

**Non Destructive Pore Scale Approach To Evaluate Elastic Properties Of Shale Samples By Imaging, Modeling And Simulation**

*W. Lv And L. F. Sun*

**Rock Electrical Properties Form Porous Plate And Resistivity Experiments: Tips To Maximize Data Quality**

*F. Pairoys*

**Insights Into Low Salinity Water Flooding**

*H. N. Al-Saedi; R. E. Flori And P. V. Brady*

**Residual Oil Saturation Under Mixed-Wet Conditions: Optimal Wettability Revisited**

*M. Christensen, Yukie Tanino*

**A New Chemical Remediation Product To Prevent Sand Production From Unconsolidated Porous Media**

*B. Marchand, C. A. Davy, F. Agostini, F. Skoczylas, A. Lange, L. Jeannin, And P. Egermann*

**Measurement Of The Organic Saturation And Organic Porosity In Shale**

*Q. Sang, S. Zhang, Y. Li, M. Dong, And S. Bryant*

**Formation Damage In The Inter-Well Zones: Experiments And Advanced Analytics**

*D. Orlov And D. Koroteev*

**Continuous Core Measurements: Applications For Optimized Petrophysical And Geomechanical Modelling In Sne Field, Senegal.**

*C. Gernay, T. Lhomme, C. Mcphee, And M. Starcher*

**Numerical Simulation Of Nanofluid Injection In Oil Saturated Porous Media With Environmental Applications**

*A. Sikinioti-Lock, K. Terzi, M. Theodoropoulou, And C. Tsakiroglou*

**A Methodology To Predict The Gas Permeability Parameters Of Tight Reservoirs From Nitrogen Sorption Isotherms And Mercury Porosimetry Curves**

*C. D. Tsakiroglou, A. Al Hinai, And R. Rezaee*

**Avoiding Routine Core Analysis Plug Damage By Proper Evaluation Of Core Gamma-Ray, Core Description And Wellsite Core Sampling**

*N. Schleifer, E. Kesse And G. Lawrence*

**Liquid Vapor Isotherms In Nano-Porous Media Under Nmr Observation**

*A. Denisenko*

**X-Ray Computed Tomography Supported By Nuclear Magnetic Resonance And Mercury Porosimetry As Novel Approach In Pore Space Characterization Of Tight Sandstones**

*P. Krakowska, E. Puskarczyk, M. Jędrychowski, M. Habrat, P. Madejski, And M. Dohnalik*

**Core-Floods On Site: Assessing The Options For Water Treatment In Fields With Active Eor Applications**

*T. Gumpenberger, P. Toplack, Ch. Pripfl, W. Vollnhofer, Ch. Einzinger, M. Marx And R. Grillneder*

**An Experimental Setup For The Assessment Of Effects Of Carbonate Rock Dissolution On Complex Electrical Conductivity Spectra**

*M. Halisch, S. Hupfer, A. Weller, R. Dlugosch, H.-P. Plumhoff*

**High Field Mri Of Hydrate Phase Transitions In Sandstone**

*S. Almenningen, J. Gauteplass, V.F. Veland, G.L. Aastveit, P. Fotland, And G. Ersland*

**Characterization Of Fluid-Rock Interaction By Adsorption Calorimetry**

*D. Korobkov, V. Pletneva, And E. Dyshlyuk*

**Measuring Relative Permeability With Nmr**

*M. J. Dick, D. Veselinovic, T. Kenney And D. Green*

**Supercritical Methane Diffusivity In Porous Media**

*N. J. Drenzek, P. K. Bikkina, J. H. Kelsey, C. P. Aichele, And J. L. White*

**Overview Of The Let Family Of Versatile Correlations For Flow Functions**

*F. Lomeland*

**Probe Magnetics As A Rapid, Non-Destructive Screening Tool For Consolidated And Unconsolidated Core In Conventional And Unconventional Reservoirs**

*T. H. To, D. K. Potter, A. Abiola, And V. T. Ebufegha*

**Dynamic Adsorption-Diffusion Model For Simulating Gas Production In Shale**

*Z. Yang, Q. Sang, Y. Li, S. Bryant, And M. Dong*

**Topological Persistence Of Heterogeneous Sandstone**

*A. L. Herring, V. Robins, M. Saadatfar, B. Young, M. Knackstedt, And A. Sheppard*

**Universal, Flow Dependent Relative Permeability Scaling For Steady-State Two-Phase Flows In Porous Media**

*M. S. Valavanides*

**Experimental Investigation Of Stability Of Silica Nanoparticles At Reservoir Conditions For Enhanced Oil Recovery Applications**

*S. Li, Nanji, J. Hadia, N. Y. Hung, H. C. Lau, O. Torsæter, And L. P. Stubbs*

**Investigation Of The Effect Of Temperature And Pressure On Interfacial Tension And Wettability**

*T. M. Okasha*

**Influence Of Aspect Ratio And Wettability On Residual Oil Saturations After Waterflooding And Immiscible Gas Flooding: A Microfluidics Based Study**

*S. Pradhan, G. Kone, R. Antle, C. Aichele, H. Jiang And P. Bikina*

**Study Of The Sulphate Ion Effect On Oil Recovery During Low Salinity Water Injection In Dolomites**

*G. Bueno Aquino De Oliveira, E. Ruidiaz Muñoz, A. Winter, And O. Vidal Trevisan*

**Characteristics Of Carbonate Rock Types In The Middle East**

*M. Dernaika, B. Mansour, And O. Al Jallad*

**Continuous Vs Discontinuous Capillary Desaturation And Implications For Ior/Eor**

*R. Xu, B. Crouse, D. M. Freed, Alfager, G. R. Jerauld, N. Lane, And Q. Sheng*

**Taxonomy Of Steady-State Two-Phase Flows In Porous Media**

*M. S. Valavanides*