

## PUBLICATIONS OF PETROLEUM GEOSCIENCES 2005-2007

### Carbonate Systems and Reservoirs

#### Articles

- Boudagher-Fadel, M. K., and Lokier, S.W., 2005, Significant Miocene Larger Foraminifera From South Central Java: *Revue de Paléobiologie*, v. 24, p.291-309.
- Kaiser, S., Steuber, T., Becker, R.T., and Joachimski, M., 2006, Geochemical evidence for major environmental change at the Devonian-Carboniferous boundary in the Carnic Alps and the Rhenish Massif: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 240, p. 146-160.
- Masse, J.-P., and Steuber, T., in press, Strontium isotope stratigraphy of Lower Cretaceous rudist bivalves: Society for Sedimentary Geology (SEPM), Special Publication; Tulsa.
- Maurer, F., and Brack, P., 2007, Aragonite dissolution, sedimentation rates, and carbon isotopes in deep-water hemipelagites (Livinallongo formation, Middle Triassic, northern Italy): *Sedimentary Geology*, v. 194, p. 279-285.
- Steuber, T., Parente, M., Hagmaier, M., Immenhauser, A. van der Kooij, B., and Frijia, G., in press, Latest Maastrichtian species-rich rudist associations of the Apulian margin of Salento (S Italy) and the Ionian Islands (Greece): Society for Sedimentary Geology (SEPM), Special Publication; Tulsa.
- Steuber, T., and Buhl, D., 2006: Calcium-isotope fractionation in selected modern and ancient marine carbonates: *Geochimica et Cosmochimica Acta*, v. 70, p. 5507-5521.

#### Abstracts

- Al-Mehsin, K., Pierson, B., Al-Menhali, S., Droste, H., Eberli, G., Warrlich, G., and Maurer, F., 2006, Regional Shuaiba facies distribution, stratigraphy, and palaeogeography: Architecture of Carbonate Systems through Time, AAPG Conference, Mallorca, Spain.
- Immenhauser, A., v.d. Land, C., Steuber, T., Graaf, J., Simone, L., v.d. Kooij, B., and Hagmaier, M., 2006, Primary low-Mg calcite ooids from the Cretaceous of Greece and Italy – Implications for ooid genesis and Cretaceous seawater chemistry: 17<sup>th</sup> International Sedimentological Congress; Fukuoka.
- Kaiser, S., Steuber, T., and Becker, T., 2006, Geochemical evidence for major environmental change during the Hangenberg mass-extinction event: GSA Annual Meeting, Pennsylvania, USA.
- Kaiser, S.I., Steuber, T., and Becker, R.T., 2006, A multidisciplinary approach to untangle the Devonian-Carboniferous boundary mass extinction (Hangenberg Event): Carboniferous Conference Cologne; Cologne, Germany.
- Kaiser, S.I., Steuber, T., and Becker, R.T., 2006, A multidisciplinary approach to untangle the Hangenberg mass-extinction event at the Devonian/Carboniferous boundary: First International Conodont Symposium; Leicester, U.K.
- Kaiser, S.I., Becker, R.T., Steuber, T., and Rasser, M.W., 2006, The Devonian/Carboniferous boundary stratotype section (La Serre, Montagne Noire) revisited: Carboniferous Conference Cologne; Cologne; Germany. (Poster)
- Kaiser, S.I., Steuber, T., Becker, R.T., Rasser, M.W., 2006, The Devonian/Carboniferous boundary stratotype section (La Serre, Montagne Noire) revisited: First International Conodont Symposium; Leicester, U.K. (Poster).
- Lokier, S., and Steuber, T., 2007, Seasonal dynamics of a modern sabkha surface: European Geosciences Union, Vienna, Austria.
- Lokier, S., and Steuber, T., 2007, Shoreline advance and sedimentology in a modern epeiric sea, the Arabian Gulf, Abu Dhabi: European Geosciences Union, Vienna, Austria.

- Maurer, F.**, Schlager, W., and Hinnov, L., 2005, Time series analysis and sedimentological tuning of bedding rhythms in a Triassic basinal succession (Southern Alps, Italy): 24<sup>th</sup> IAS Meeting, Muscat, Oman.
- Mutterlose, J., Rexfort, A., **Steuber, T.**, 2006, Stabile Isotopenmuster kretazischer Belemniten: Paläobiologische Aspekte: 76. Jahrestagung der Paläontologischen Gesellschaft; Kiel.
- Schlueter, M., **Steuber, T.**, Parente, M., and Mutterlose, J., 2007, Biostratigraphy and Sr-isotope chemostratigraphy of rudist-bearing carbonate platforms in the central-eastern Mediterranean and Middle East during the latest Cretaceous (Campanian-Maastrichtian): European Geosciences Union, Vienna, Austria.
- Steuber, T.**, 2006, Late Cretaceous rudist bivalves and carbonate platforms: rates of evolution and timing of events correlated by strontium-isotope stratigraphy: GSA Annual Meeting, Pennsylvania, USA.
- Steuber, T.**, 2006, Sea-surface temperature seasonality during cool and warm episodes of the Cretaceous: Implications from isotopic and chemical intra-shell variations in mollusk calcite: 3<sup>rd</sup> European Science Foundation Conference, Bologna, Italy.
- Steuber, T.**, and **Lokier, S.**, 2007, Anthropogenic CO<sub>2</sub> recorded in the isotopic composition of a modern prograding carbonate ramp (Arabian Gulf, Abu Dhabi): European Geosciences Union, Vienna, Austria.
- Steuber, T.**, and **Lokier, S.**, 2007, Carbonate and evaporite precipitation reflected in the hydrochemistry of inter- to supratidal waters of a modern arid coast (Arabian Gulf, Abu Dhabi): European Geosciences Union, Vienna, Austria.
- Van der Kooji, B., Immenhauser, A., **Steuber, T.**, Csoma, A., Hagmaier, M., and Bahamonde, J., 2006, Origin and driving mechanisms of volumetrically important radiaxial fibrous calcite precipitation on deep submarine slopes: 3<sup>rd</sup> European Science Foundation Conference, Bologna, Italy.
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- Van der Kooij, B., Immenhauser, A., **Steuber, T.**, Hagmaier, M., Bahamonde, J., 2006, Origin and driving mechanisms of volumetrically important radiaxial fibrous calcite precipitation on deep submarine slopes: Carboniferous Conference Cologne, Cologne. (Poster)
- Van der Kooji, B., Immenhauser, A., **Steuber, T.**, Sammankassou, E., Bahamonde, J., Hagmaier, M., and Merino Tome, O., 2006, Paleooceanographic significance of red-stained sedimentary intervals in a Pennsylvanian high-rising carbonate platform: 3<sup>rd</sup> European Science Foundation Conference, Bologna, Italy.

## **Geophysics and Rock Physics**

### **Articles**

- Ali, M. Y.**, 2006, Hydrocarbon potential of Somaliland, *First Break*, v. 24, 49-54.
- Vega, S.**, Mavko, G., Prasad, M., and Nur, A., 2006, Detection of stress-induced velocity anisotropy in unconsolidated sands: *The Leading Edge*, v. 25, p. 252-256.
- Truss, S., Grasmueck, M., **Vega, S.**, and Viggiano, D.A., in press, Imaging Rainfall Drainage within the Miami Oolitic Limestone using High-Resolution Time-Lapse GPR: *Water Resources Research*.

### **Abstracts**

- Ali, M. Y.**, 2005, Petroleum geology and hydrocarbon potential of Somaliland: 67<sup>th</sup> EAGE Conference, Madrid, Spain (*extended abstract*).

- Ali, M. Y.**, 2007, Petroleum geology and hydrocarbon potential of Guban basin (Bihendula basin), Somaliland: 69<sup>th</sup> EAGE Conference, London, UK (*extended abstract*).
- Ali, M. Y.**, and Watts, A. B., 2005, Seismic stratigraphy, gravity anomalies, and compensation of the Cape Verde islands by surface and sub-surface loading: SAL 2005 Ocean Island Volcanism workshop, Sal, Cape Verde.
- Berteussen, K.A.**, 2005, Calculating the Expected Monetary Value of 4D Seismic Data, Extended Abstract Accepted for Poster, PDO-Saudi Aramco Workshop on Seismic Reservoir Monitoring, Bahrain
- Berteussen, K.A.**, 2005, Estimating the value of seismic data at survey decision time. Extended abstract, 67<sup>th</sup> EAGE Conference & Exhibition, Madrid, Spain
- Berteussen, K.A.**, 2005, Estimating the value of seismic data before a survey is shot; special reference to 4-D, Extended Abstract, GEO2006, Baharain
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- Berteussen, K.A.**, 2006, Energy supply, technology development and business models – a case study from the seismic industry, Extended Abstract, Invited Talk at the First Annual Energy 2030 Conference, Abu Dhabi, UAE, November 1-2, 200
- Berteussen, K.A.**, 2006, Quantifying the value of data before the measurements are done, as applied to oil exploration and production. Poster at the First Annual Energy 2030 Conference, Abu Dhabi, UAE, November 1-2, 200
- Berteussen, K.A.**, 2006, Quantifying the value of 4D data before the survey. Extended Abstract, SEG 2006 International Exposition and 76th Annual Meeting, New Orleans, USA
- Berteussen, K. A.**, Kolbjørnsen, K., Larsen, D.O. and Kristiansen, P., 2006, Monitoring of an uncontrolled gas flow by sea bottom seismic instruments – a North Sea case study; an old story deserving to be re-told. Extended Abstract accepted for EAGE Workshop on Passive seismic, December 2006, Dubai
- Nehaid, H. A., and **Ali, M. Y.**, 2007, A case study of porosity prediction from seismic inversion in a carbonate oilfield, Abu Dhabi, UAE: 69<sup>th</sup> EAGE Conference, London, UK (*extended abstract*).
- Rode, E. D., and **Ali, M. Y.**, 2007, Application of direct hydrocarbon indicator based on passive seismic surveys in the Middle-East: 15<sup>th</sup> MEOS, Manama, Bahrain.
- Sun, Y. F.**, **Berteussen, K.**, **Vega, S.**, Eberli, G. P., Baechle, G. T., Weger, R. J., Massaferro, J. L., Bracco Gartner, G. L., and Wagner, P. D., 2006, Effects of pore structure on 4D seismic signals in carbonate reservoirs: SEG Expanded Abstracts, 25, 3260, New Orleans, USA.
- Vega, S.**, Grasmueck, M., Truss, S., Or, D., Chen, Y., and Drasdis, J., 2005, Study of rock properties and EM response of the Miami Oolitic Limestone: Workshop: Sound of Geology, Bergen, Norway.
- Vega, S.**, **Sun, Y. F.**, **Berteussen, K. A.**, and Sultan, A. A., 2006, 4D Seismic Rock Physics Modeling: Evaluation of Fluid Substitution in Carbonates: Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract MR11B-0118, San Francisco, USA.

### **Structural Geology and UAE Regional Geology**

#### **Abstracts**

- Ali, M. Y.**, and **Sirat, M.**, 2006, Geophysical investigation of Al Jaww plain, eastern Abu Dhabi: Implications for structure and evolution of the frontal fold belts of Oman Mountains: AGU Annual Meeting, USA.

- Ali, M. Y., Leanderson, J., and Small, J., 2006, Integrating geological and geophysical methods to map a subsurface contact between ultramafic and Hawasina sequences in Al Wadiyein, Buraimi, Oman: GEO2006, Manama, Bahrain.
- Ali, M. Y., Sirat, M., and Small, J., 2006, Geophysical investigation of Al Jaww plain, eastern Abu Dhabi: Implications for structure and evolution of the frontal fold belts of Oman Mountains: AGU, San Francisco, USA.
- Ali, M. Y., and Small, J., 2007, Gravity and magnetic investigation of southeast of Al Ain, UAE: Implications for evolution of frontal fold belts of Oman: 69<sup>th</sup> EAGE Conference, London, UK (*extended abstract*).
- Ali, M. Y., and Watts, A. B., 2006, Stratigraphy, subsidence and uplift history, and tectonic evolution of the United Arab Emirates foreland basin: AGU, San Francisco, USA.
- Sirat, M., 2006, The impact of current stress regimes and fractures geometry on hydraulic conductivity: a case study; the Äspö HRL-Sweden: EAGE Workshop, Abu Dhabi, UAE.
- Sirat, M. and Sun, Y., 2006, Oil and Gas in the UAE: Present and Future Production: Energy 2030 International Conference, 1-2 November, Abu Dhabi (*extended abstract*)
- Sirat, M., de Jong, S, Werener, E, Sokoutis, D., Willingshofer, E. and Ali, M., 2007, The Tectonic Evolution of Jebel Hafit and Al-Jaww Plain: Structural Style and Fracture Analysis: European Geosciences Union, Vienna, Austria.

### Other—Artificial Neural Networks

#### Articles

- Sirat, M., 2007, Prognosis of Groundwater Contamination Utilizing Neural Networks; a Case Study: United States Mid-Continent: ICMASAO'07, 2nd International Conference on Modeling, Simulation and Applied Optimization, Abu Dhabi – UAE).

#### Other Professional Activities

- Ali, M. Y., 31 January 2007, Stratigraphy, subsidence and uplift history, and tectonic evolution of the United Arab Emirates foreland basin: ESG presentation, Abu Dhabi, UAE.
- Berteussen, K.A., 2004, Multi-Component Ocean Bottom Cable data in Gas-Hydrate Investigation. Presentation to the Dahrn Geoscience Society.
- Berteussen, K.A., 2005, Multi Component Marine Seismic for Gas Hydrate Quantification. Presentation to ESG
- Berteussen, K.A., 2005, Research pays off, Gulf News Special Report on Norway
- Berteussen, K.A., 2005, A tale of two nations, Gulf News Special Report on Norway
- Berteussen, K.A., 2005, The value of seismic data? Presentation at IO-METF 2005, Hatta
- Berteussen, K.A., 2006, 4D Seismic: What is it and why do it? Presentation at IO-METF 2006, Jebel Ali
- Berteussen, K., 2007, Distinguished Lecturer, European Association of Geoscientists and Engineers.
- Lokier, S.W., 2006-, Associate Editor of Sedimentology
- Sirat, M., 2005, Fracture Systems Characterization and Structural Modeling of the Äspö Hard Rock Laboratory, SE Sweden: RMS user conference, Abu Dhabi, UAE.
- Sirat, M., 16-17 March, Structural style and fracturing of carbonate rocks analogous to reservoir units: SPE presentation and field excursion to Jebel Hafit.
- Steuber, T., 27 February 2007, Interactions between secular variations in seawater composition and Cretaceous carbonate sedimentation: ESG presentation, Abu Dhabi, UAE

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