

Petroleum Geoscience

The journal is abstracted and/or indexed in *Current Contents*, *Science Citation Index*, *GeoArchive*, *GeoRef*, *Geobase*, *Petroleum Abstracts*, *Geological Abstracts*, *Mineralogical Abstracts* and *Cambridge Scientific Abstracts*

CONTENTS – Volume 22, No 2

- Integration of Cretaceous Morro do Chaves rock properties (NE Brazil) with the Holocene Hamelin Coquina architecture (Shark Bay, Western Australia) to model effective permeability**
P W M Corbett, R Estrella, A M Rodriguez, A Shoeir, L Borghi & A C Tavares 105
- Fault linkage across weak layers during extension: an experimental approach with reference to the Hoop Fault Complex of the SW Barents Sea**
R H Gabrielsen, D Sokoutis, E Willingshofer & J I Faleide 123
- Variability and heterogeneity of the petrophysical properties of extensional carbonate fault rocks, Malta**
E A H Michie & T J Haines 136
- Petrophysical and numerical seismic modelling of CO₂ geological storage in the E6 structure, Baltic Sea, offshore Latvia**
K Shogenov, D Gei, E Forlin & A Shogenova 153
- Reservoir characterization using electrofacies analysis in the sandstone reservoir of the Norne Field (offshore Norway)**
G G Correia & D J Schiozer 165
- A workflow for vertical and horizontal near-wellbore permeability modelling in the McMurray Formation**
O Babak & J Resnick 177
- A measure of facies mixing in data upscaling to account for information loss in the estimation of petrophysical variables**
S Lajevardi & C V Deutsch 191
- Investigation of CO₂ storage in a saline formation with an angular unconformity at the caprock interface**
S M Shariatipour, G E Pickup & E J Mackay 203

Chief Editor:

P A F Christie, Schlumberger Gould Research, UK
(e-mail: pafc1@slb.com)

Co-Editors:

S Geiger, Heriot Watt University, Edinburgh, UK
(e-mail: s.geiger@hw.ac.uk)
B Levell, Oxford University, UK
(e-mail: Bruce.Levell@earth.ox.ac.uk)
P Ringrose, Statoil E & P, Norway
(e-mail: phiri@statoil.com)
G Yielding, Badley Geoscience Ltd, UK
(e-mail: graham@badleys.co.uk)

Production Editor:

S Oberst, Geological Society Publishing House, Bath
(e-mail: sally.oberst@geolsoc.org.uk)

To advertise in *Petroleum Geoscience* contact:

Ollie Kirkman
Tel: +44 (0) 1727 739193;
e-mail: ollie@centurypublishing.ltd.uk
Century One Publishing Ltd, Alban Row,
27–31 Verulam Road, St Albans AL3 4DG

Petroleum Geoscience (ISSN 1354-0793) is published in February, May, August and November by the Geological Society Publishing House for the Geological Society, London and the European Association of Geoscientists and Engineers.

Subscription rates 2016 (volume 22, 4 parts)

All correspondence relating to trade subscriptions should be addressed to the Journal Subscription Department, Geological Society Publishing House, Unit 7, Brassmill Enterprise Centre, Brassmill Lane, Bath, UK, BA1 3JN (Tel: +44 (0) 1225 445046; Fax: +44 (0) 1225 442836; e-mail: sales@geolsoc.org.uk). The subscription prices for 2016 are as follows: online only £440 + VAT for UK, EU and ROW users; online + print £529 + VAT for UK, EU and ROW users. More information about subscription prices can be found at www.geolsoc.org.uk/lcaccess

Periodical postage paid at Middlesex, N.J.

Postmaster: send address changes to *Petroleum Geoscience*, The Geological Society, c/o Pronto Mailers, PO Box 177, Middlesex, NJ 08846.

© The Geological Society of London and EAGE 2016. No reproduction, copy or transmission of all or part of this publication may be made without the prior written permission of the publisher. In the UK, users may clear copying permissions and make payment to The Copyright Licensing Agency Ltd, Saffron House, 6–10 Kirby Street, London EC1N 8TS, UK, and in the USA to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Other countries may have a local reproduction rights agency for such payments. Full information on the Geological Society's permissions policy can be found at www.geolsoc.org.uk/permissions

Publishing disclaimer: www.geolsoc.org.uk/pub_ethics

Cover image

Plaster-silicone polymer experiment from a series of experiments designed to investigate the mechanisms and dynamics of vertical and horizontal fault segment linkage in a mechanically stratified sediment sequence (see paper Gabrielsen *et al.* 2016, *Petroleum Geoscience*, 22, 123–135). Note composite geometry of the master fault and the contrast in fault pattern between the two sand sequences separated by silicone polymer. This would be equivalent to sandstone layers in nature separated by salt or water-saturated mud.