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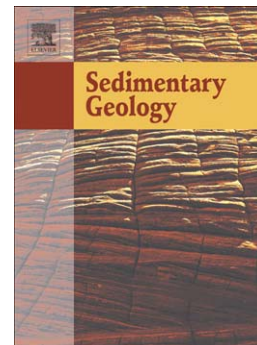
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Sedimentary controls on modern sand grain coat formation

Patrick J. Dowey ^{a*1}, Richard H. Worden^a, James Utley^a, David M. Hodgson^b

^a*School of Environmental Sciences, University of Liverpool, 4 Brownlow Street, Liverpool L69
3GP, UK*

^b*Stratigraphy Group, School of Earth and Environment, University of Leeds, Leeds, LS2 9JT,
UK*

¹*Present address: School of Earth and Environmental Sciences, University of Manchester,
M13 9WJ Manchester, UK*

**corresponding author: patrick.dowey@manchester.ac.uk*

Abstract

Clay coated quartz grains can influence reservoir quality evolution during sandstone diagenesis. Porosity can be reduced and fluid flow restricted where grain coats encroach into pore space. Conversely pore-lining grain coats can restrict the growth of pore-filling quartz cement in deeply buried sandstones, and thus can result in unusually high porosity in deeply buried sandstones. Being able to predict the distribution of clay coated sand grains within petroleum reservoirs is thus important to help find good reservoir quality. Here we report a modern analogue study of 12 sediment cores from the Anllóns Estuary, Galicia, NW Spain, collected from a range of sub-environments, to help develop an understanding of the occurrence and distribution of clay coated grains. The cores were described for grain size, bioturbation and sedimentary structures, and then sub-sampled for electron and light

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