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PII: S0264-8172(17)30286-6

DOI: [10.1016/j.marpetgeo.2017.07.031](https://doi.org/10.1016/j.marpetgeo.2017.07.031)

Reference: JMPG 3013

To appear in: *Marine and Petroleum Geology*

Received Date: 24 March 2017

Revised Date: 22 July 2017

Accepted Date: 25 July 2017

Please cite this article as: Sales de Oliveira, C.E., Pe-Piper, G., Piper, D.J.W., Zhang, Y., Corney, R., Integrated methodology for determining provenance of detrital quartz using optical petrographic microscopy and cathodoluminescence (CL) properties, *Marine and Petroleum Geology* (2017), doi: 10.1016/j.marpetgeo.2017.07.031.

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# **Integrated methodology for determining provenance of detrital quartz using optical petrographic microscopy and cathodoluminescence (CL) properties**

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Keywords:

quartz; provenance; Jurassic; Cretaceous; Bandol-1; Newfoundland

Highlights:

- New work flow for identifying provenance of quartz grains in sandstones
- Combines panchromatic SEM-CL, optical microscopy, and hot-cathode microscope attachment
- Hot cathode CL provides better discrimination of types of metamorphic quartz
- Three phases of detrital quartz supply in Mesozoic at Bandol-1 well offshore Newfoundland

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