

Burial Corrosion as a Major Porosity Forming Process in Carbonates*

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*Abstract from 2011-2012 AAPG Foundation Distinguished Lecture presentation.

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The view that carbonate porosity is lost with progressive depth is being questioned as more examples are found of reservoirs exhibiting the effects of late stage dissolutional processes having operated even at depths of several kilometres. A range of processes are typically invoked including corrosion caused by acids released during source rock maturation, acidity related to TSR (thermochemical sulphate reduction), mixing corrosion and retrograde solubility. Such effects can create seismic scale collapse zones as well as being a major cause of microporosity in limestones. This presentation will illustrate the range of features associated with burial corrosion, including the subtle controls of primary textures and fractures on later corrosion, as well as discussing the problems in identifying the mechanisms for dissolution.