



Evidence of Jurassic rifting in the Arabian passive continental margin of the Neo-Tethys from the Lurestan region (Iran).

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The Arabian passive margin formed at the southern margin of the Neo-Tethys ocean during the breakup of Pangea. The deformed Arabian continental paleo-margin exposed in the Lurestan region of the Zagros consists of distinct crustal domains, including a proximal sector and a distal continental ribbon, separated by the deep-water Radiolarite Basin. The differentiation of these domains occurred during continental rifting and reflects timing and style of continent separation. Rifting is generally assumed to be Permo-Triassic in age. However, syn-sedimentary extensional faults, unconformities and facies changes in the Mesozoic stratigraphic succession of the Lurestan region point to a major Jurassic rifting stage. In detail, tectono-stratigraphic evidence indicates that extension reached its climax during the Early Jurassic, when it caused the drowning of the Triassic to Early Jurassic carbonate platform and led to the transition from shallow to deep water sedimentation in a wide area of the proximal domain of the Arabian margin, coevally with the development of the Radiolarite deep-water Basin. Our findings indicate the occurrence of a two-step continental rifting in this area, with a first Permo-Triassic phase followed by an Early Jurassic one.