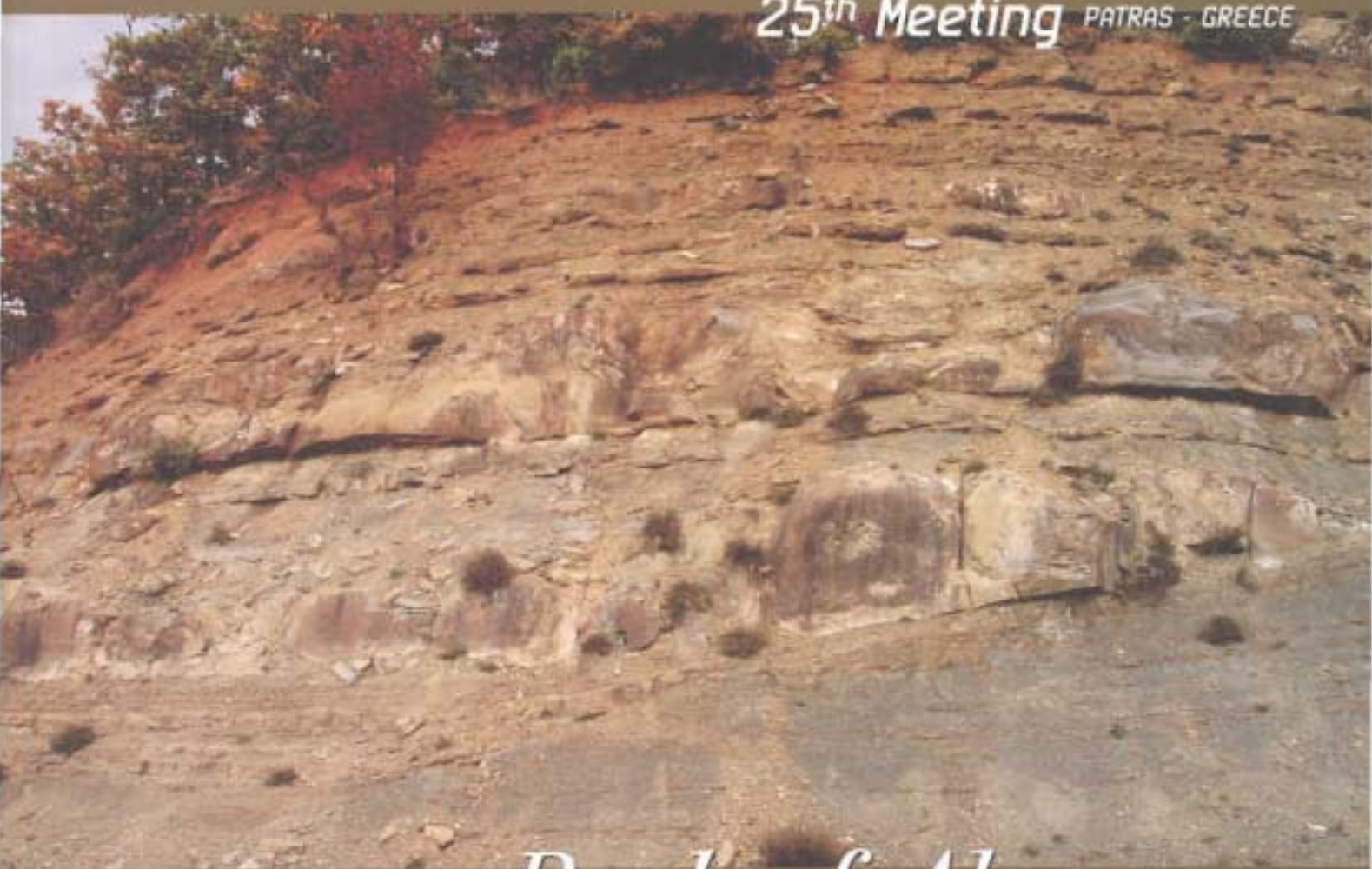




IAS 2007

25th Meeting PATRAS - GREECE



Book of Abstracts

4-7th September 2007 **IAS**

CONFERENCE & CULTURAL CENTRE OF THE UNIVERSITY OF PATRAS



INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS REGIONAL MEETING
25th IAS MEETING OF SEDIMENTOLOGY
Patras, Greece, 4th–7th September 2007

*It is a great pleasure to welcome you to the 25th Regional Meeting
of the International Association of Sedimentologists.*

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at the Conference and Cultural Center in the University of Patras, in Patras.
We are especially grateful for the assistance of the technical staff and the postgraduates students
of the Department of Geology in providing technical support during the conference,
running audio-visual equipment, registration, provision of poster boards,
and all of the other jobs involved in hosting a conference*

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*We are also pleased to acknowledge the allocation of funds by the IAS to provide
student travel grants to 26 conference participants.*

*The Organizing Committee wishes you a stimulating and enjoyable conference
and an interesting short stay in Patras.*

ON BEHALF OF THE ORGANIZING COMMITTEE

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Sandstone petrofacies and geochemical imprints in a multihistoried intracratonic Rift basin (Iberian Basin)

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During the most active stages of rifting in the intracratonic Iberian Basin (Rift 1: Permian–Triassic; Rift 2: Late Jurassic–Early Albian) thick sequences of continental clastic deposits were generated. Sandstone records in both rift stages show similarities in composition and can be grouped in two elemental petrofacies: sedimentoclastics and plutoniclastics.

Sedimentoclastic petrofacies developed during early rifting stages through the recycling of prerift sediments. These petrofacies comprise a thin succession (<100 m) of mature quartzose and quartzolithic sandstones. These have been identified in the base of megasequences both in Rift cycle 1 (Saxonian facies, PT–1) and Rift cycle 2 (JC–1 and JC–3; Tithonian and Valangian, respectively). In the two rift stages, sedimentoclastic petrofacies evolve towards the top to plutoniclastic, reflecting periods of high tectonic activity accompanied by substantial erosion of plutonites. These feldspar–rich petrofacies form thick successions (1000–4000m) and correspond to the Buntsandstein (PT–2) in Rift cycle 1, and

Hauterivian–Early Albian deposits (JC–4) in Rift cycle 2 in the North Iberian Basin (Camerós Basin). Geochemical data (i.e., CIA) concur with weathering inferences and with lithology at the sources

Sedimentoclastic plus plutoniclastic petrofacies form a “provenance cycle” that records a complete clastic cycle within a rifting period. Thus petrofacies PT–1 and PT–2 represent the “provenance cycle” during Rift–1. In the the North Iberian Basin (Camerós Basin), two provenance cycles may be discerned during Rift cycle 2, related to the Tithonian–Berriasian and the Valanginian–Early Albian megasequences.

Tectonics is the main factor controlling petrofacies and geochemical imprints. Other factors (i.e., maturation during transport, local supply) may modulate the compositional signatures of the petrofacies yet their main character persists and even outlines the hierarchy of the main bounding surfaces between depositional sequences in the intracontinental Iberian Rift Basin.