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Titolo Tectonic Evolution of the Moroccan High Atlas: A Paleomagnetic

Perspective: Magnetic Techniques (Anisotropy of Magnetic

Susceptibility and Paleomagnetism) Applied to the Understanding of the Evolution of an Intra-Plate Mountain Chain / / edited by Pablo Calvín, Antonio M. Casas-Sainz, Teresa Román-Berdiel, Juan J. Villalaín

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Nota di contenuto The geological setting of the Moroccan High Atlas and its plate

tectonics context -- Structure of the Central High Atlas (Morocco). Constraints from potential field data and 3D models -- Magnetic properties of the remagnetized carbonates of the Central High Atlas (Morocco) -- Paleomagnetism of the Central High Atlas. The widespread Cretaceous Remagnetization and structural implications -- Geodynamic evolution during the Mesozoic and Cenozoic in the Central High Atlas of Morocco from Anisotropy of Magnetic Susceptibility --

Kinematics of structures and basin evolution in the Central High Atlas. Constraints from AMS and paleomagnetic data.

Sommario/riassunto This book presents a significant amount of structural, paleomagnetic

and magnetic fabric data in the Central High Atlas (Morocco). The authors thoroughly described and analyzed the present-day structure of this intraplate chain through 22 of cross-sections, potential field data analysis and 3D reconstruction. In addition, the authors propose a palinspastic reconstruction of the structure of the basin at 100 Ma (i.e., post-extension and pre-compression) to finally evaluate its Mesozoic

and Cenozoic geodynamic evolution. This books presents (1) a unique three-dimensional model at the chain scale, (2) an analysis of the ca. 100 Ma remagnetization, to perform palinspastic restorations of most representative structures, (3) as well as the interpretation of the magnetic fabrics in order to unravel the tectonic or deformation setting that the rocks underwent in different parts of the basin. This book is of interest to structural geologists in Northern Africa, the Mediterranean and Iberia, as well as to those interested in inverted intraplate basins and paleomagnetists from around the planet. Also, this book is intended to help students to understand better the geological evolution of the Atlas and therefore Morocco and surrounding areas.