

Public Abstract

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Title:CRUSTAL STRESS ACROSS THE NORTHERN ARABIAN PLATE AND THE RELATIONSHIP WITH THE PLATE BOUNDARY FORCES

The main goals of this study is to address the present day tectonic crustal stress fields for the study area using focal mechanisms acquired by multiple methods, primarily first motion and moment tensor techniques. Additionally, the study examines the efficiency of these methods based on the geological setting and the available seismic data. In addition to relative plate motion and stress field orientation, the results of this study have implications for broader understanding of the orogenic processes as well as regional earthquake hazards.