

EGU24-3623, updated on 07 Feb 2025

<https://doi.org/10.5194/egusphere-egu24-3623>

EGU General Assembly 2024

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## The role of post-salt carbonates on salt tectonic minibasin formation

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Salt tectonics on passive margins is driven by sediment loading and gliding with minimal influence from basement-involved tectonics and is associated with variable and complex salt structures such as minibasins and diapirs. A major enigma in salt tectonics is the origin of load-driven diapir-flanked minibasins, synclinal depocenters formed by localized subsidence of syn-kinematic sediments into salt. How can less-dense clastic sediments sink into the denser salt promoting diapirism at their flanks? We use 2D numerical modelling of lithospheric extension including syn- and post-rift sedimentation to understand the evolution of salt-tectonic minibasins along rifted passive margins. Our results show that these minibasins are driven by the deposition of dense early post-salt carbonates and then amplified during the progradation of less dense and compacting clastics. In contrast, basin-scale salt flow driven by clastic progradation alone, without deposition of early post-salt carbonates, does not produce minibasins as observed on salt-bearing passive margins.