



## **Upper Triassic (Norian-Rhaetian) dinoflagellate cyst zonation of Nayband Formation, Tabas Block, East - Central Iran**

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Due to lack of well-preserved fossils and appropriate data on the Upper Triassic strata in Iranian Plate and importance of the strata in terms of hydrocarbon source potential, paleoenvironmental and paleoclimate investigations of Tethys basin. In this research we applied a palynological study on the Late Triassic (Norian-Rhaetian) Nayband Formation, East- Central Iran, to evaluate precise age of the rock unit, its stratigraphic framework and related palaeoenvironmental changes. The studied section attains a thickness of 800 meters and consists of shales, sandstones and some interbedded limestones. Palynological assessments deduced reasonably diverse and moderately preserved terrestrial and marine palynomorphs which lead to identification of Rhaetogonyaulax rhaetica Zone of the Rhaetogonyaulax Superzone and led to an age of Norian-Rhaetian for the rock units. The recovered palynofloras comprise 23 species belong to 15 genera, including radially symmetrical and monolete spores. Representatives of trilete spores as Dictyophyllidites mortonii, Kyrtonisporis laevigatus, and Gleicheiniidites senonicus are essentially abundant in the palynofloras examined. The assigned age is also confirmed by the association of some key misopore species as Annulispora folliculosa and Polycingulatisporites mooniensis. The recovered dinoflagellate cysts exhibit close resemblances with those recorded in Australia, Northwest Europe, Arctic Canada and Northern Iran. Additionally, based on the detected marine palynomorph associations, accompanied by spore grains, a nearshore depositional environment has been suggested for the studied deposits in Tabas Block of Iran.