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**PALYNOSTRATIGRAPHY AND PALAEOGEOGRAPHY OF CAMBRIAN STRATA (ZAIGUN, LALUN, MILA AND ILEBYEK FORMATIONS) FROM THE HIGH ZAGROS MOUNTAIN RANGES, SOUTHERN IRAN**

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The studied areas comprise of Zard-kuh (Tang-e-Ilebyek), Kuh-e Gereh (Tang-e-Putak) and Kuh-e-Dinar (Tang-e-Rag-e-Bavi) (Kuh = Mountain and

Tang =Valley), which are located in the southwest of the Zagros Crush Zone. A thick lower Palaeozoic sequence is well-developed at the above-mentioned

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areas and it has been divided, in ascending stratigraphical order into the Zaigun, Lalun, Mila, Ilebyek, Zard-Kuh and Seyahou formations. A total of two hundred surface samples were collected from the Cambrian rock units (Zaigun, Lalun, Mila and Ilebyek formations) and treated for palynomorph entities. The surface samples of Zaigun and Lalun formations are barren in palynomorphs since these two formations respectively consist of red-brown sandstone, reddish siltstone and purple shale. Therefore, based on stratigraphical position, they have been assigned to Early Cambrian. The Mila Formation consists of fossiliferous limestone and shale, but the Ilebyek Formation mainly comprises of alternation of siltstone, shale and sandstone. Based on trilobite and brachiopod faunas, these formations have been assigned to Middle and Late Cambrian. All surface samples of the Mila and Ilebyek formations contain well-preserved and abundant acritarch taxa. In this study, a total of 17 genera and 28 species were encountered from the Mila and Ilebyek formations, consisting of *Timofeevia lancarae*, *Timofeevia phosphoritica*, *Timofeevia pentagonalis*, *Timofeevia microretis*, *Retisphaeridium howellii*, *Retisphaeridium dichamerum*, *Cristallinium cambriensis*, *Cristallinium ovillense*, *Vulcanisphaera turbata*, *Vulcanisphaera africana*, *Leiofusa stoumonensis*, *Cristallinium randomense*,

*Veryachium dumontii*, *Cymatiogalea virgulta*, *Cymatiogalea aspergillum*, *Impluviculus* sp., *Trunculumarium revinium*, *Dasydiacrodium obsonum*, *Dasydiacrodium caudatum*, *Actinodissus achrasii*, *Rugasphaera terranovana*, *Stellichinatum uncinatum*, *Vulcanisphaera lanugo*, *Eliasum jenessii*, *Adara alea*, *Cymatiogalea cylindrata*, *Lusatia dramatica* and *Acanthodiacrodium angustum*. These acritarch species were arranged in six ascending assemblage zones as the followings: I- *Eliasum jenessii* - *Rugasphaera terranovana* assemblage zone; II- *Adara laea* - *Timofeevia phosphoritica* assemblage zone; III- *Timofeevia pentagonalis* - *Vulcanisphaera turbata* assemblage zone; IV- *Cristallinium randomense* - *Veryhachium dumontii* assemblage zone; V- *Trunculumarium revinium* - *Dasydiacrodium caudatum* assemblage zone; and VI- *Vulcanisphaera Africana* - *Acanthodiacrodium angustum* assemblage zone. The assemblage zones I-III are present in the Mila Formation, suggesting Middle - early Late Cambrian. The assemblage zones IV-VI occur in the Ilebyek Formation, indicating Late Cambrian- early Tremadocian. These acritarch assemblage zones are recorded for the first time from Cambrian strata in the Zagros Basin. These zones are in accordance with those recorded from Middle-Late Cambrian of Belgium, France, Newfoundland and the East European Platform.