PETROGRAPHY AND ORIGINE OF THE MIDDLE DEVONIAN DOLOMITES (ŞAFAKTEPE FM.) IN THE GEYİKDAĞI UNIT (EAST TAURUS), TUFANBEYLİ-SAİMBEYLİ

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ABSTRACTS.- The middle Devonian dolomites exposed in the Autochthonous Geyikdağı unit (East Taurus) had resulted in dotomitization of Amphipora-bearing reefal limestones along with ostracod-algal laminated limestones. The dolomitic unit is composed of homogenous, mottled, laminated and banded (zebroid) types of dolomites. Dolomitization took place in the different timing, namely early and late diagenetic. The early diagenetic ones underwent mixing-water diagenesis (marine-fresh water) on a tidal flat environment. Their isotopic signature ($d^{18}O$= -2.48 to 0.039‰; $d^{13}C$= 0.079 to 3.18‰) also fits this dotomitization model. The second type, late diagenetic dolomites (epigenetic dolomite) are coarser crystalline than the earlier ones, and their isotopic composition became more negative or greatly diminished ($d^{18}O$= -10.75 to -8.36‰; 5 C= -0.63 to 1.45‰), this suggests increasing temperature during dolomitization. The late diagenetic dolomitization invoked recrystallization and dissolution of the early diagenetic dolomites. Additionally, coarsely crystalline white dolomites (saddle dolomites) precipitated in the dissolution vughs, and subsequently some ore deposits emplaced within the late diagenetic dolomites.