

## Petrographic and geochemical characteristics of dolomites in the Golbogazı Formation (Upper Devonian) at SW of Hadim, (Konya - Turkey)

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Upper Devonian units, locating Central Taurus composed of thick dolomite with massive limestones layers and thinner dolomite layers with intercalated limestone are described. Various dolomite types include: Type I) dolomite formed as dolomicrite as mimic replacement, Type II) the planar-e texture dolomites are scattered in a micritic matrix, Type III) fracture and void filling dolomite (zoned dolomite, overgrowth and saddle), Type IV) brecciated dolomite, and V) polymodal dolomite.

The Sr content in the Golbogazı Formation (184 to 74 ppm in the early dolomites, and 105 to 78 ppm in the late dolomites, respectively) is compatible with the Sr concentration mixing-zone dolomites. The Na content in the Golbogazı Formation (593 to 148 ppm in the early dolomites, and 519 to 297 ppm in the late dolomites, respectively) is

REE	Samples		Normalized values			
	Rocks	Str. Sed.	Chondrite	Peridotite	MORB	NASC
La	22,1	24,1	67,0	22,3	6,0	0,7
Ce	44,8	49,2	52,1	17,0	3,9	0,6
Pr	5,4	5,3	44,8	15,8	3,0	0,6
Nd	20,7	20,3	33,3	11,5	2,1	0,7
Sm	4,1	4,1	20,3	7,5	1,2	0,7
$\Sigma_{LREE}$	97,1	103				
Eu	0,8	0,9	11,4	3,8	0,6	0,6
Gd	3,7	3,8	13,8	5,0	0,8	0,7
Tb	0,7	0,7	13,7	4,9	0,8	0,7
Dy	3,8	4	11,6	4,0	0,7	0,7
Ho	0,7	0,8	10,3	3,4	0,6	0,6
Er	2,4	2,5	11,0	4,0	0,7	0,7
Tm	0,4	0,4	12,0	4,0	1,1	0,7
Yb	2,4	2,5	10,8	4,0	1,1	0,8
Lu	0,3	0,4	12,3	3,7	1,0	0,8
$\Sigma_{HREE}$	15,2	16				
$\Sigma_{REE}$	112,3	119				

compatible with the Na concentration mixing-zone dolomites. The investigated dolomites exhibit -1.95 to -3.46 PDB in  $\delta^{18}O$  values relative to their  $\delta^{13}C$  values (1.33 to -1.33 PDB) in the early diagenetic dolomites. The late diagenetic dolomites display -3.96 to -9.44 PDB in  $\delta^{18}O$  values relative to their  $\delta^{13}C$  values (2.52 to -1.58 PDB).

As a result, the Golbogazı Formation dolomites have been formed as early diagenetic at the shallow marine environment and as the late diagenetic at the shallow-deep burial depths.

## Comparison of REE concentrations between the Bozkır ophiolitic rocks and stream sediments derived from these rocks in the Bozkır Region (Konya – Turkey)

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The study area located in south and east of Bozkır (Konya-TURKEY), covers approximately 250 km<sup>2</sup>. The units cropped out in the study area are Geyikdağı (slightly metamorphic detritious and carbonaceous rock), Bozkır (ophiolitic rocks such as serpentinite, pyroxenite, gabbro, radiolarite, chert, limestone) and Bolkardağ (generally limestones) tectonic units from bottom to top. This study aims investigation of REE concentration of the rocks and stream sediment samples derived from Bozkır Ophiolitic Melange and comparison between the two mentioned groups [1, 2].

REE contents of the rock samples higher than those of the chondrite and peridotite while lower than that of NASC.  $\Sigma_{REE}$ , HREE<sub>(La-Sm)</sub> and LREE<sub>(Gd-Lu)</sub> of the rocks are 112.2, 97 and 15.2 ppm respectively. REE contents of stream sediments higher than that of the rock samples (Table 1).

**Table 1.** REE contents of the rock and stream sediment and normalized values to the some reference rocks.

Some normalized values of the rock samples to the chondrite such as La/Lu, Gd/Yb, Eu/Eu\* and Ce/Ce\* are 5.44, 1.27, 0.68 and 0.93.

- [1] Öztürk (2008) PhD Thesis *Selcuk Univ. N.A.S.I* 222p.  
[2] Öztürk (2010) *Geology of Nat. Sys.\_ Geo* 209–210p.