lherzolite tectonically thinned the orebearing section around the petrologic moho, entrapping massive ore pods along the thrust surface; (iii) Primary oceanic structures are overprinted by ductile cataclasis that preferentially affects ore sites, and in turn by brittle emplacement structures, so that all structrures appear to reconcile a single "emplacement strain" orientation. Potentiel ore "traps" are located along the thinned "moho" surface where mylonitic form lines rotate from the NW into conjugate shear zones.

GEOCHEMICAL AND ISOTOPIC (Sr, Nd) VARIATION IN MAGMATIC SERIES FROM THE BODRUM VOLCANIC COMPLEX (SE AEGEAN).

Ur. Robert and J. Foden

Déepartment de Pétrologie, Université Pierre et Marie Curie, 4, place Jussieu, 75252 PARIS CEDEX 05, France Department of Geology and Geophysics, University of Adelaide.

Upper Miocene magmatism in the Aegean Sea forms two igneous provinces: the Central Aegean or Cycladic Province to the west where granitoids are predominant, and the Dodecanese Province to the east where both, intrusive and extrusive facies of subalkalic character occurd these show potassic affinities and form series from malic to felsic rock types. The most important center of this province, the Bodrum Volcanic Complex on the turkish coast, is a partly eroded stratovolcano whose major activity (10 to 9 Ma) produced a variety of basaltic rocks, and two differentiated rock series, one Si-undersaturated, the other oversaturated. The dominant products of the latter, however, are of intermediate composition.

Rock types vary from basalts to either Ne-trachyandesites and alkalitrachytes, or to latites, trachydacites and rhyolites but show no systematic temporal evolution, except that rhyolites are restricted to the early stage. Their chemical compositions extend from 48 to 73% silica. The differentiated series are well discriminated above 53% silica by K, Ba, Sr, REE, Zr and Nb contents. Their major and trace element data show trends reflecting fractionation in shallow-level magma chambers, coupled with more complex mixing processes in the oversaturated series.

The basaltic rocks show a range of isotopic compositions with $^{87}Sr/^{86}Sr$ spanning from 0.7058 to 0.7071 and $^{143}Nd/^{144}Nd$ from 0.51264 to 0.51246 and include highly LIL element-enriched ultrapotassic basalts with characteristics of poorly evolved mantle-derived magmas. These are evidence for the existence of an "enriched mantle" component. The isotopic compositions of both differentiated series are well in the range of values for the basalts. The Siundersaturated rocks show little variation for initial $^{87}Sr/^{86}Sr$ and $^{143}Nd/^{144}Nd$. This suggests that crustal contamination was minor and fractionation non-related to assimilation processes occurred. Likewise, Sr isotopic

compositions in the oversaturated rocks, slightly higher, do not favor an entirely crustal origin for these series, although some correlation with differentiation parameters exists. These isotopic characteristics confirm the different setting of the Dodecanese Province as compared to the contemporaneous Central Aegean Province where crustal contribution was important.

SETTING OF THE PARNASSUS CARBONATE PLATFORM IN THE MESOZOIC PINDUS OCEAN: EVIDENCE FROM THE KERASSIA-MILIA COMPLEX

A.H.F. Robertson and P. Degnan

Department of Geology and Geophysics, University of Edinburgh Edinburgh, EH9 3JW U.K.

The Kerassia-Milia Complex is a narrow, N-S trending melange unit of Mesozoic-Early Tertiary ophiolitic and shallow-to deep-water sedimentary rocks, sandwiched between Early Tertiary terrigenous flysch of the Pindos Zone. It provides evidence of an igneous floored, deep marine basin between the Apulian continental margin to the west and an intra-oceanic carbonate platfrom, the Parnassus Zone to the east. Late Triassic basaltic extrusion was accompanied by submarine slumping of shallow-water carbonates from neighbouring build-ups, followed by radiolarian and pelagic carbonate deposition. Faulting in the Upper Cretaceous-Palaeocene time exposed serpentinite, basalt and cover sediments to submarine erosion and redeposition within pelagic carbonates and accreted into terrigenous flysch during Early Tertiary basin closure and finally deformed within a west wards propagating fold and thrust belt of Eocene-Oligocene age.

PRELIMINARY FIELD RESULTS ON METAMORPHOSED METALLIFEROUS DEPOSITS FROM THE PELAGONIAN ZONE, GREECE

A.H.F. Robertson and S.P. Varnavas

Department of Geology & Geophysics Grant Institute, Edinburgh University, West Mains Road, Edinburgh EH 9 3JW.

New field, mineralogical and geochemical work (in progress) shows that metamorphosed metalliferous deposits are present into two settings within the central Pelagonian Zone, E Greece. This area has undergone two main phases of regional metamorphosish, first under HT greenschist/amphibolite facies, then HP/LT blueschist facies