GEODYNAMIC IMPLICATION OF GEOCHEMICAL DATA FOR THE EARLY PALEOZOIC METAVOLCANICS FROM THE GEMERIC UNIT (INNER WESTERN CARPATHIANS)

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Early Paleozoic of the Gemeric Unit consists of (from N to S) three lithological groups: (1) Gelnica G., (2) Rakovec G. and (3) Klátov G. Distribution of REE and other incompatible elements supposed to be immobile during metamorphosis have been studied in metabasalts from all three groups. In volcano-sedimentary Gelnica Group, which is composed of mostly low grade metamorphosed calc-alkaline acid volcanics, the rare metabasalt occurrences are concentrated into three east-west trending subparallel belts. In the northernmost belt metabasalts of different types close to N-MORB, CAB and E-MORB have been discerned. Further two belts contain E-MORB-type metabasalts only, but sometimes with the manifestation of the plagioclase fractionation. The Rakovec Group metamorphosed under medium pressure conditions at least is composed of mostly basic metavolcanics with E-MORB characteristics; small amount of pelitic metasediments is present. The Klátov Group is represented by amphibolites and gneisses (probably retrogressed lower crust rocks) with enclaves of garnet amphibolites geochemically close to N-MORB. Based on metabasalts geochemistry, lithology and metamorphism the Early Paleozoic of Gemeric Unit might be considered tectonically reduced destructive plate margin (ensialic island arc?) with manifestations of the back-arc rifting.

CONODONT BIOSTRATIGRAPHY OF THE MIDDLE-UPPER TRIASSIC HALLSTATT LIMESTONE (S.I.) FACIES; EXAMPLES FROM NORTHEASTERN HUNGARY

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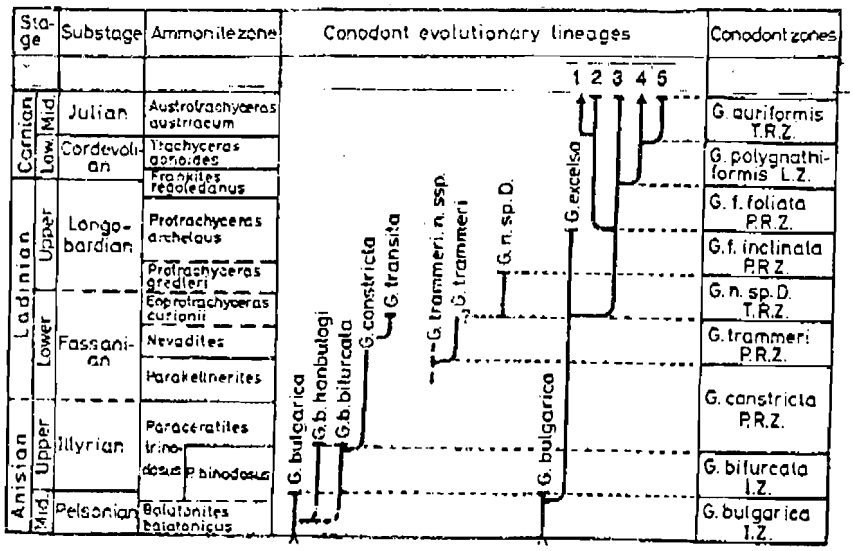
Bed-by-bed investigation of numerous profiles and boreholes drilled with continuous coring in Hallstatt-type Middle-Upper Triassic (eupelagic) sequences of Northeastern Hungary allowed a detailed tracing of conodont evolutionary lineages and distinction of 19 different zones from Middle Anisian (Palsonian) to Upper Norian (Sevatian). Up to the Lower Norian a precision of formerly proposed zonations became possible and establishment of a Gondolella-based one for the Ladinian-Lower Carnian, which can

be used for deep water facies poor in metapolygnathoids. These zones seem to be recognizable in Tethyan Triassic eupelagic facies and permit a precise age-dating of Hallstatt-type (s.l) limestone sequences.



T.R.Z. = Taxon Range Zone
P.R.Z. = Partial Range Zone
L.Z. = Lineage Zone
I.Z. = Interval Zone
C.R.Z. = Concurrent Range Zone

1 G. tadpole
2 G. f. foliata
3 G. f. inclinata
4 G. polygnathiformis
5 G. auriformis

Fig. 1.
Conodont biostratigraphy of the Nádaska Limestone Formation (Kovács, S., 1983)

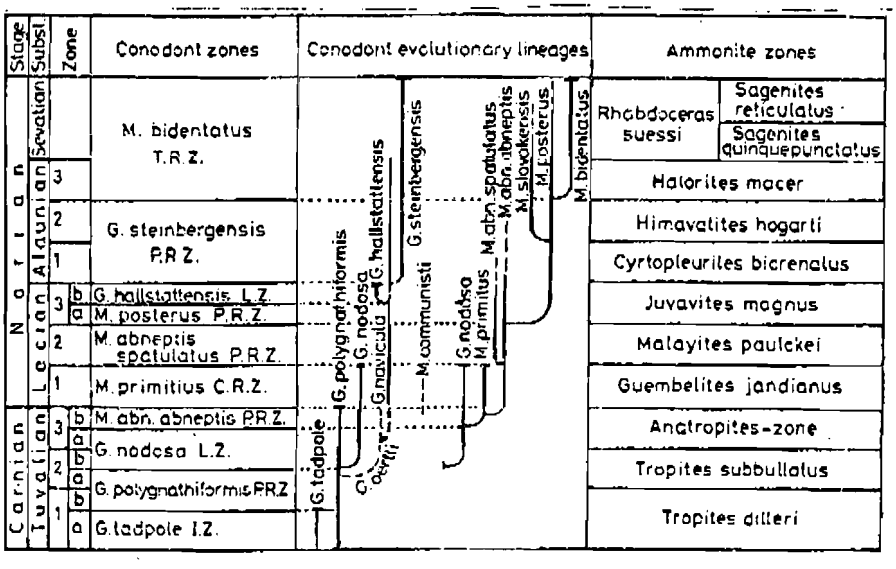


Fig. 2.
Conodont zones of Upper Carnian and Norian stages (Kovács, S., 1985; modified after Krystyn, L., 1980 and Kozur, hH 1980)