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Geochemistry and tectonostratigraphy of a Carnian-Norian open-marine Hallstatt limestones section in the Budva Zone (Montenegro)

MISSONI, S.¹, GAWLICK, H.J.¹, RICHOSZ, S.², GORICAN, S.³, PROCHASKA, W.¹, LEIN, R.⁴, KRYSSTYN, L.⁴

¹ Montanuniversitaet Leoben, Department Applied Geosciences Geophysics, Peter-Tunner-Straße 5, 8700 Leoben, Austria
email: sigrid.missoni@unileoben.ac.at

² University of Graz, Institute of Earth Sciences, NAWI Graz, Heinrichstraße 26, 8010 Graz, Austria

³ Ivan Rakovec Institute of Paleontology ZRC SAZU, Gosposka 13, Novi trg 2, SI-1000 Ljubljana, Slovenia

⁴ University of Vienna, Department for Paleontology, Althanstraße 14, 1090 Vienna, Austria

In the Budva zone of Montenegro deposition of hemipelagic sediments started in the Late Anisian to ?Early Ladinian with dark grey radiolarian cherts. Ladinian radiolarite deposition gradually passed to open-marine limestone deposition, similar to deep-water Hallstatt limestone successions elsewhere in the Alpine/Carpathian/Dinaride realm. During Carnian to Early Norian a more than 50 metres thick sequence is characterized by (1) a long lasting sub-marine gap (Mid Carnian to early Late Carnian), and (2) a thick middle Late Carnian to Early Norian succession with two intercalated polymictic breccia horizons (one around the Tuvanian 2/3 boundary and another from the Carnian/Norian boundary onwards during the Ladian 1-2).

The trend of the open-marine Hallstatt limestone succession in the Budva zone can be directly correlated with other high resolution Hallstatt limestone successions, dated by means of conodonts in the e.g. Eastern Alps, West Carpathians, Dinarides and Turkey. A deposition in an independent deep-water basin, which should be connected to the Mirdita-Pindos oceanic realm, is not reflected by depositional characteristics, tectonostratigraphic events, isotope excursions or the paleo-seawater geochemistry.

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