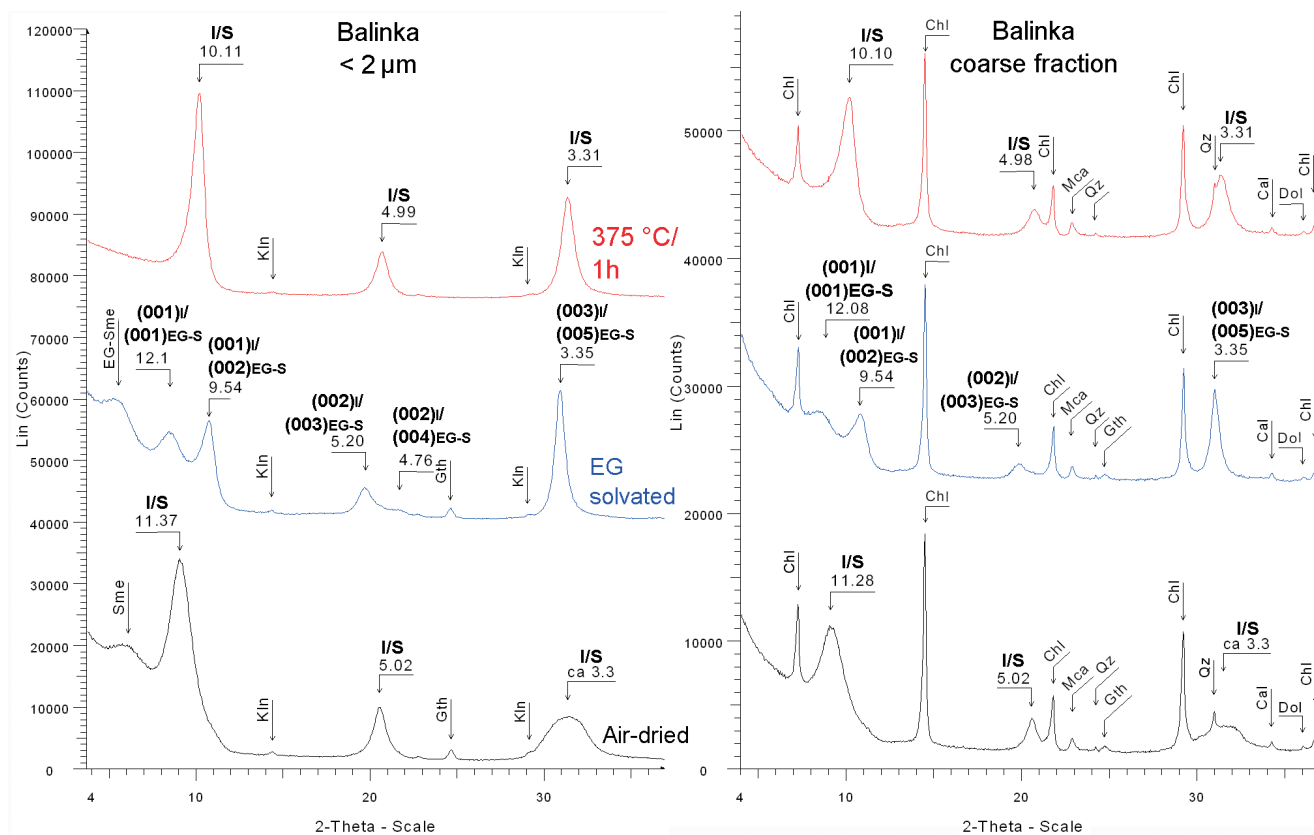
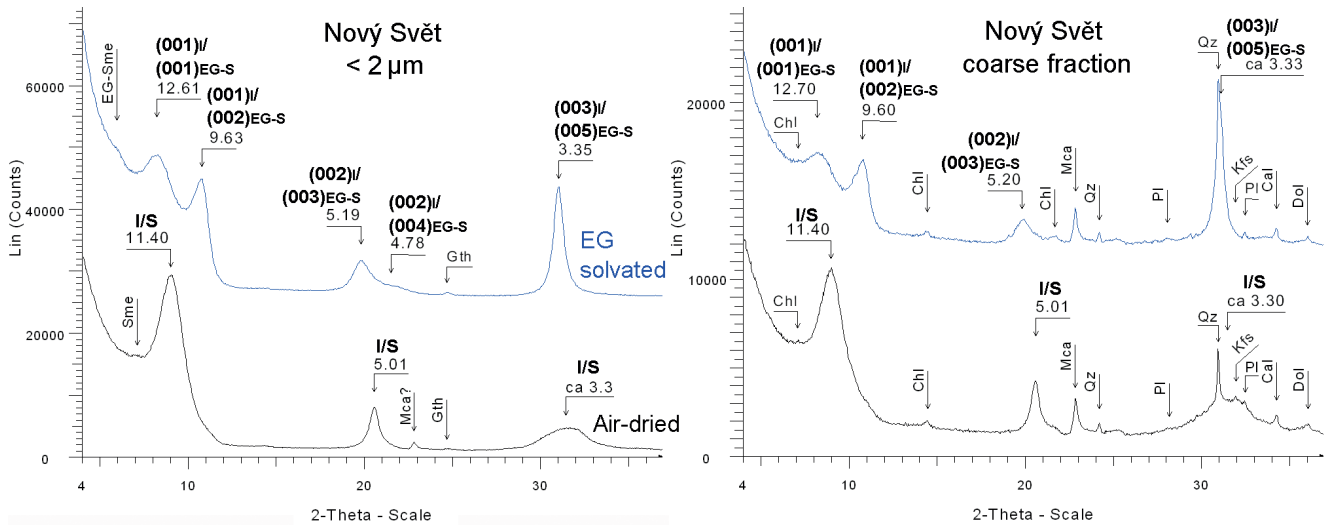


## SUPPLEMENTARY MATERIAL TO:

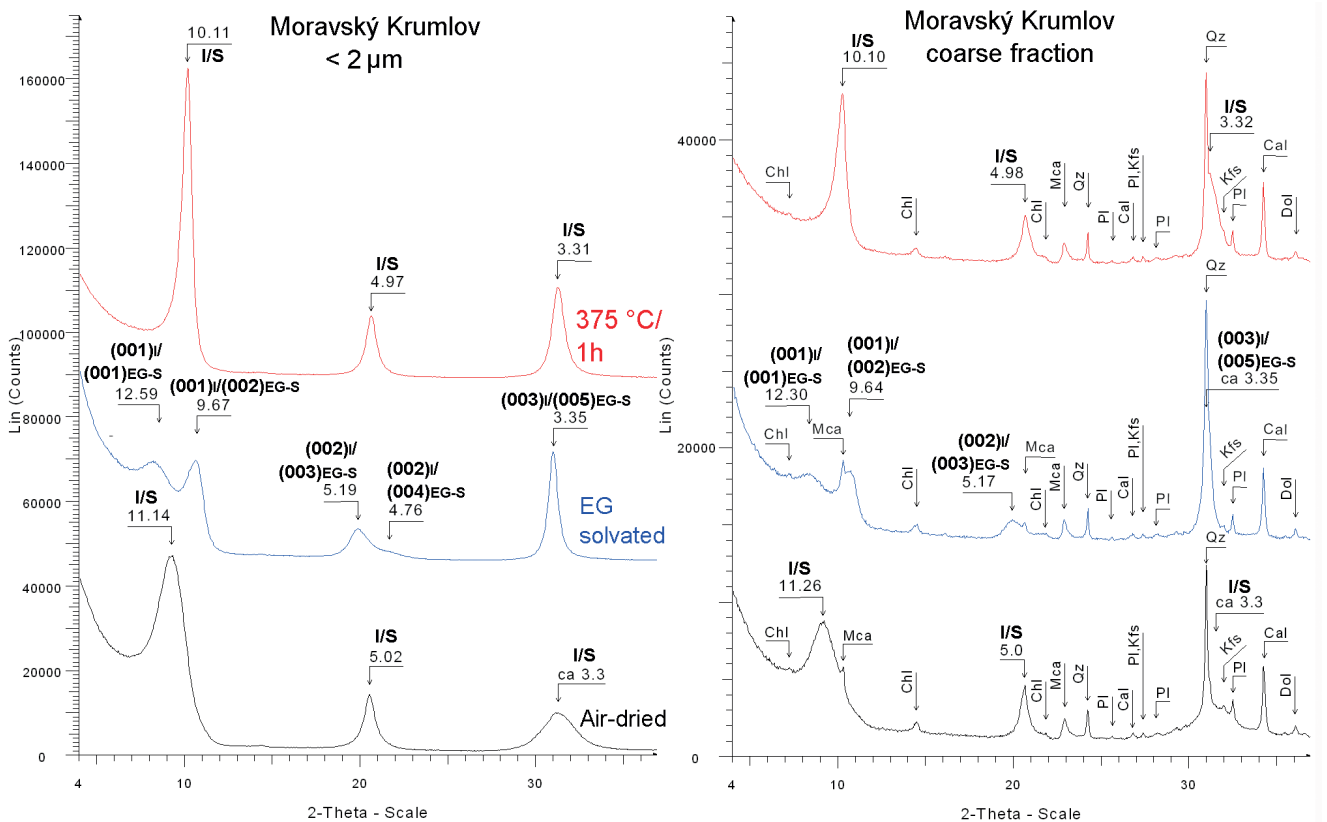
Hršelová, P., Houzar, S., Buriánek, D., Všianský, D., Szczerba, M., Ciesielska, Z., Štelcl, J. & Nehyba, S., 2023. Chromium-rich illite/smectite in the basal Balinka Conglomerate of the Upper Carboniferous-Permian Boskovice Basin (Bohemian Massif). *Annales Societatis Geologorum Poloniae*, 93: 195–210.



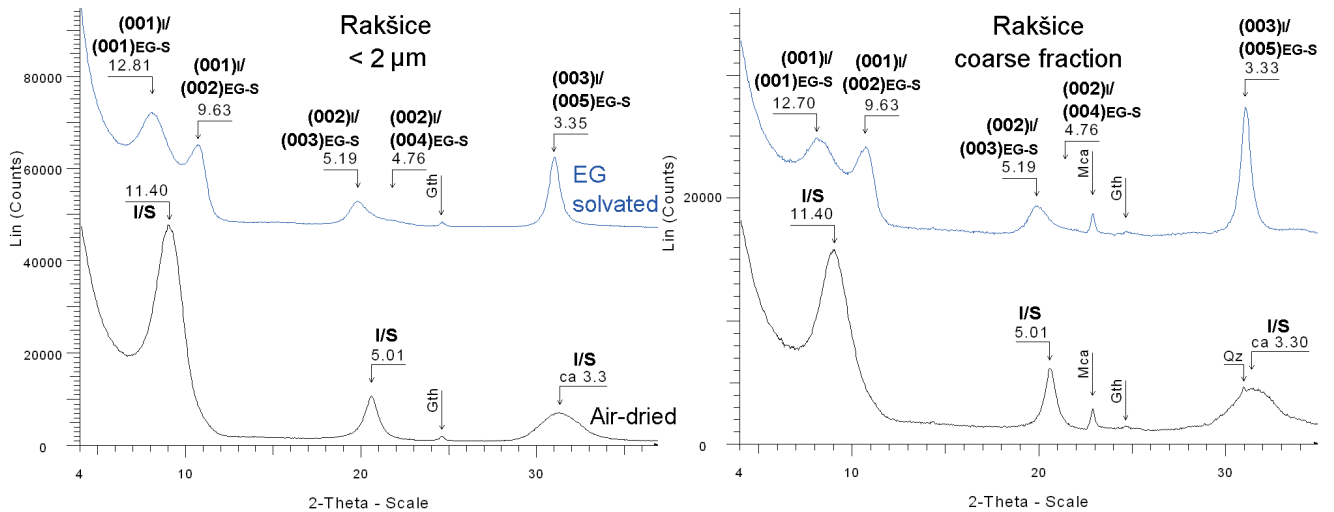
**Fig. S1.** Diffractograms (4–37 °2 $\theta$ ) of air/dried, ethylene glycol solvated and 375 °C/1h heated oriented mounts of < 2 μm and coarse fraction of the Havírna-Balinka sample. Reflections of RI-illite(0.8)/smectite are marked in bold and d-values in Å are given for them. Cal – calcite, Chl – chlorite, Dol – dolomite, I/S – illite/smectite, Sme – smectite, Kfs – K-feldspar, Pl – plagioclase, Gth – goethite, Kln – kaolinite, Mca – mica, Qz – quartz.



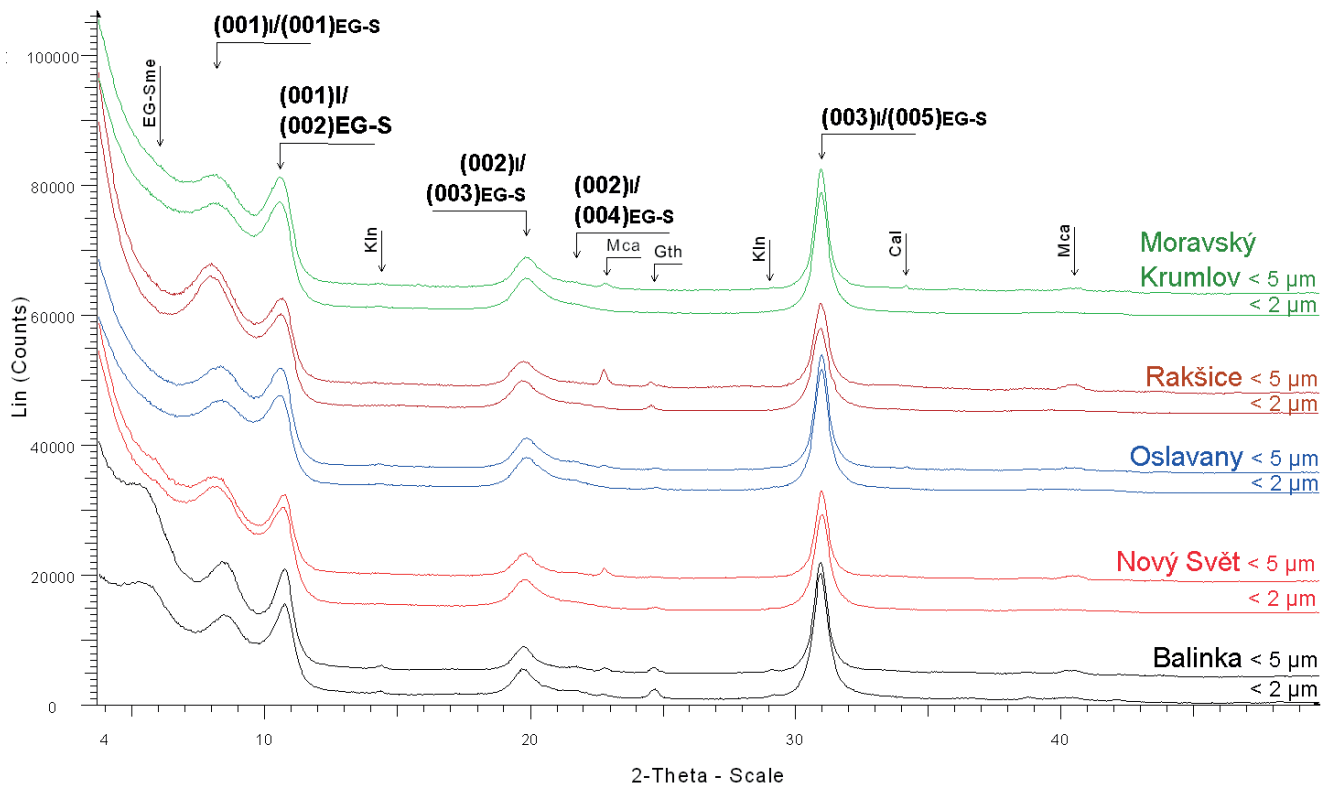
**Fig. S2** Diffractograms ( $4\text{--}37^\circ 2\theta$ ) of air/dried, ethylene glycol solvated oriented mounts of  $< 2\ \mu\text{m}$  and coarse fraction of the Nový Svět sample. Reflections of RI-illite(0.8)/smectite are marked in bold and d-values in Å are given for them. Cal – calcite, Chl – chlorite, Dol – dolomite, I/S – illite/smectite, sme – smectite, Kfs – K-feldspar, Pl – plagioclase, Kln – kaolinite, Gth – goethite, Mca – mica, Qz – quartz.



**Fig. S3** Diffractograms ( $4\text{--}37^\circ 2\theta$ ) of air/dried, ethylene glycol solvated and  $375^\circ\text{C}/1\text{h}$  heated oriented mounts of  $< 2\ \mu\text{m}$  and coarse fraction of the Moravský Krumlov sample. Reflections of RI-illite(0.8)/smectite are marked in bold and d-values in Å are given for them. Cal – calcite, Chl – chlorite, Dol – dolomite, I/S – illite/smectite, Kfs – K-feldspar, Pl – plagioclase, Mca – mica, Qz – quartz.



**Fig. S4.** Diffractograms (4–37 °2θ) of air/dried, ethylene glycol solvated oriented mounts of < 2 μm and coarse fraction of the Rakšice sample. Reflections of R1-illite(0.8)/smectite are marked in bold and d-values in Å are given for them. I/S – illite/smectite, Mca – mica, Gth – goethite, Qz – quartz.



**Fig. S5.** Diffractograms (4–37 °2θ) of ethylene glycol solvated oriented mounts of < 2 μm and of < 5 μm fraction of all samples. Reflections of R1-illite(0.8)/smectite are marked in bold and d-values in Å are given for them. Cal – calcite, I/S – illite/smectite, Sme – smectite, Mca – mica, Kln – kaolinite, Gth – goethite.