

Article title: Provenance of Upper Paleozoic Sandstones from the Western Carpathians (Slovakia): Petrofacies analysis and U–Pb detrital zircon geochronology

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Fig. S1. Correlation scheme of lithostratigraphic units in the Western Carpathians Carboniferous-Permian sequences. Description of individual lithostratigraphic units in the following works: Bouček & Přibyl 1959 (ZU); Bajaník et al. 1981 (NGU, SGU); Grecula & Együd 1982 (ZU); Vozárová & Vozár 1988 (TAU, NVU, SVU, HU, ZU); Vozárová 1992 (TU); Vozárová 1996 (NGU); Mello, Reichwalder & Vozárová 1998 (BN).

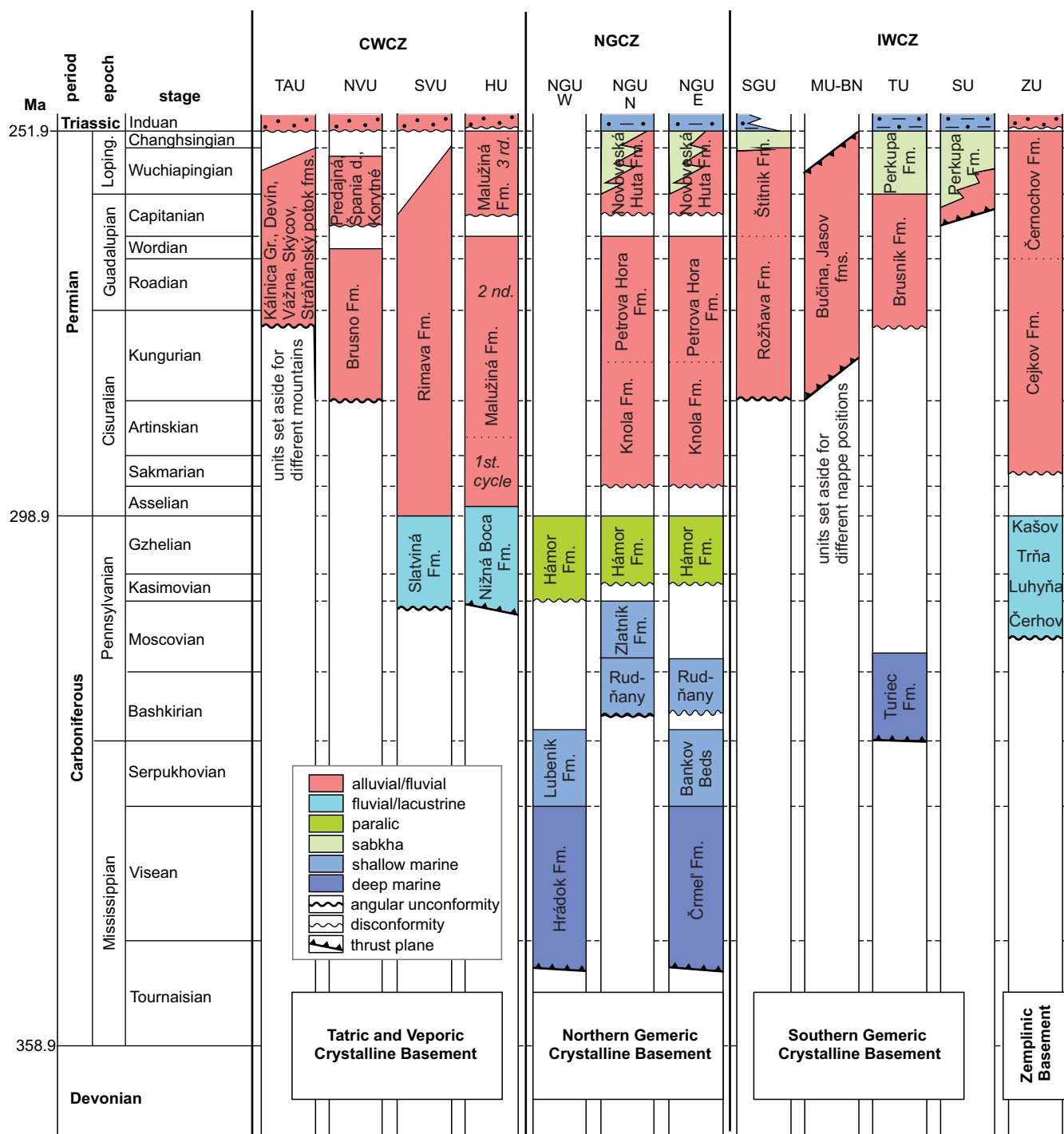


Fig. S2. The Western Carpathians Carboniferous–Permian sandstones photomicrographs, with marking of basic diagnostic grains.

Plate A: **a, b** – Permian of the Tatric Unit, Strážanský potok Fm.; **c, d, e, f** – Permian of the Northern Veporic Unit, Brusno Fm.; **g, h** – Pennsylvanian of the Hronic Unit, Nižná Boca Fm. *Abbreviations:* Qm–monocrystalline quartz; Qp–polycrystalline quartz; P–plagioclase; K–potassium feldspar; Lv–volcanic, metavolcanic lithic grains; Lms–sedimentary, metasedimentary lithic grains; F–feldspar together; Tur–tourmaline.

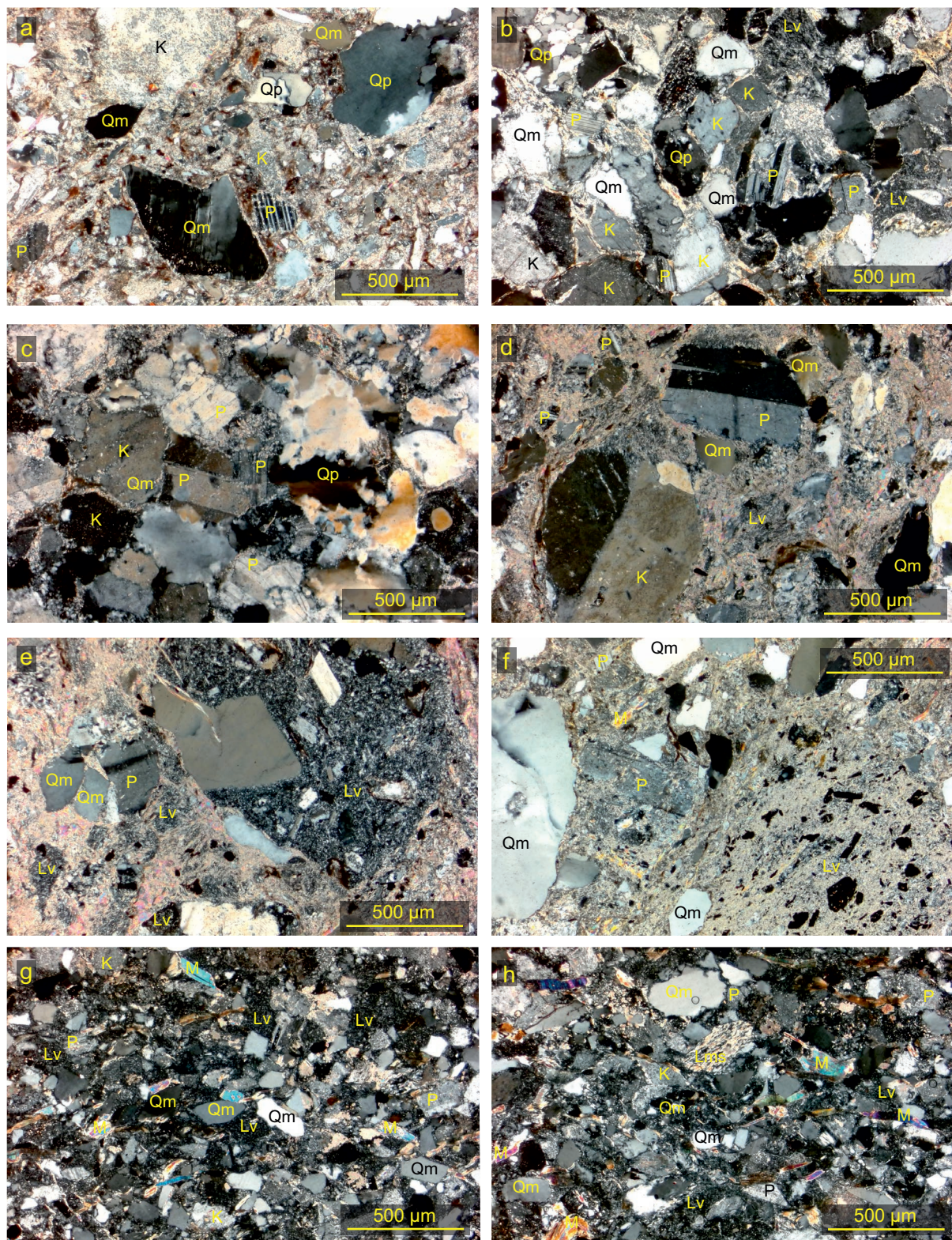


Fig. S2. The Western Carpathians Carboniferous–Permian sandstones photomicrographs, with marking of basic diagnostic grains.

Plate B: **a, b** –Permian of the Hronic Unit, Malužiná Fm.; **c, d**–Mississippian of the Northern Gemeric Unit, Hrádok Fm.; **e, f**–Pennsylvanian (Bashkirian–Moscovian) of the Northern Gemeric Unit, Zlatník Fm.; **g, h**–Pennsylvanian (Bashkirian–Moscovian) of the Northern Gemeric Unit, Rudňany Fm. *Abbreviations:* Qm–monocrystalline quartz; Qp–polycrystalline quartz; P–plagioclase; K–potassium feldspar; Lv–volcanic, metavolcanic lithic grains; Lms–sedimentary, metasedimentary lithic grains; F–feldspar together; Tur–tourmaline.

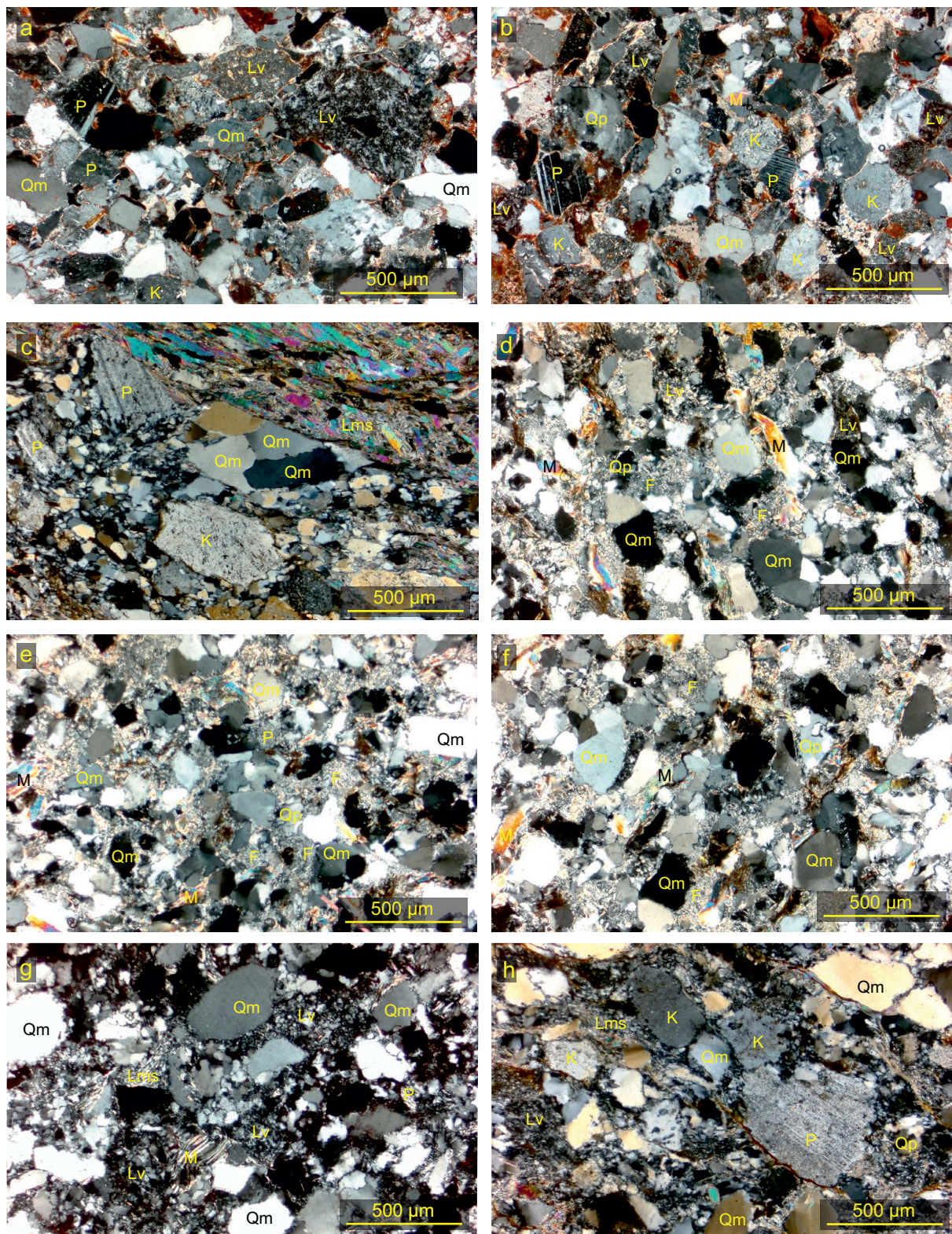


Fig. S2. The Western Carpathians Carboniferous–Permian sandstones photomicrographs, with marking of basic diagnostic grains.

Plate C: **a**–Pennsylvanian (Kasimovian–Ghzelian) of the Northern Gemeric Unit, Hámor Fm.; **b**–Permian of the Northern Gemeric Unit, Petrova Hora Fm.; **c, d**–Permian of the Southern Gemeric Unit, Rožňava Fm.; **e**–Permian of the Southern Gemeric Unit, Štítník Fm.; **f, g, h**–Permian of the Turna Unit, Brusník Fm. *Abbreviations:* Qm–monocrystalline quartz; Qp–polycrystalline quartz; P–plagioclase; K–potassium feldspar; Lv–volcanic, metavolcanic lithic grains; Lms–sedimentary, metasedimentary lithic grains; F–feldspar together; Tur–tourmaline.

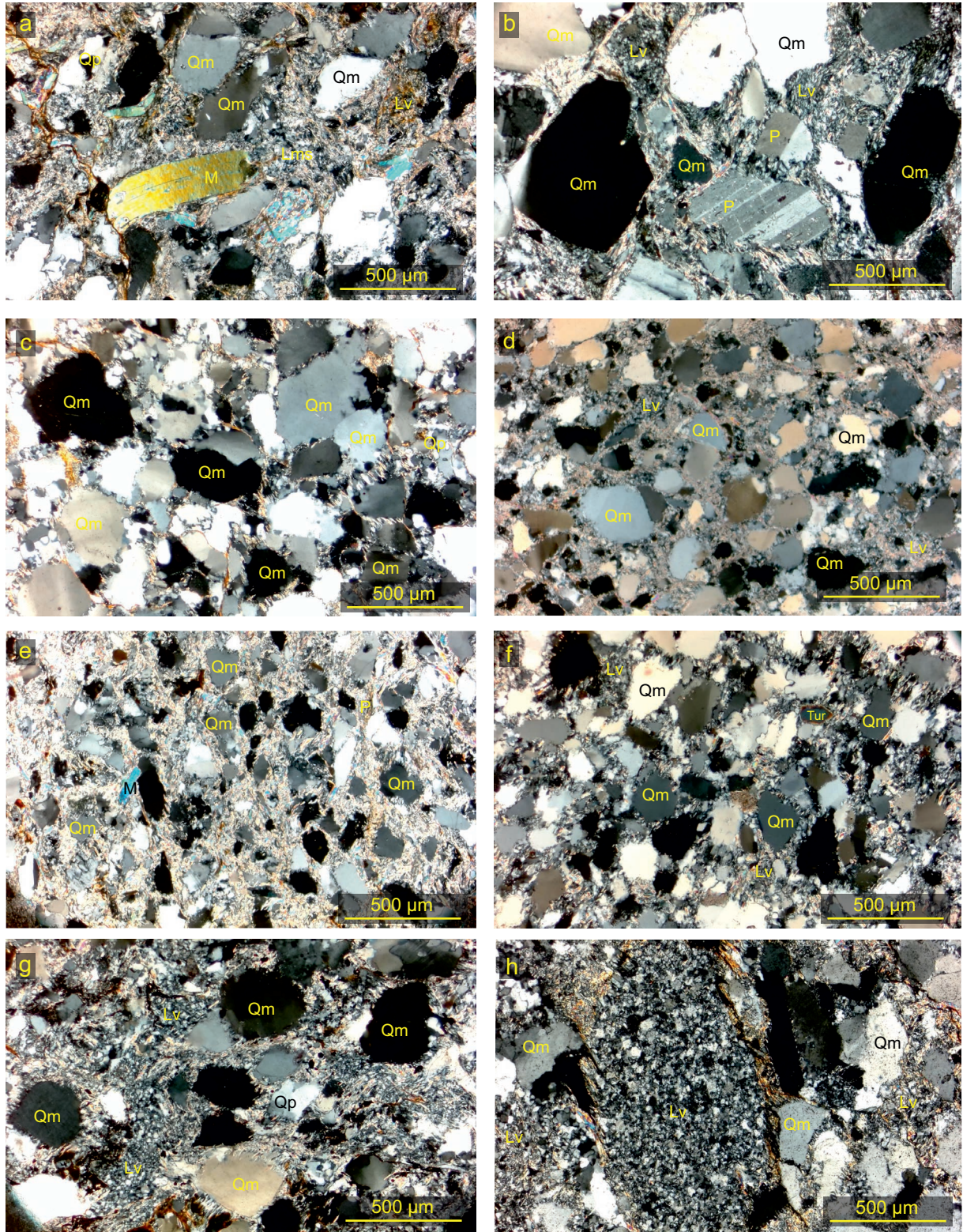


Fig. S2. The Western Carpathians Carboniferous–Permian sandstones photomicrographs, with marking of basic diagnostic grains.

Plate D: **a, b, c**–Pennsylvanian of the Zemplinic Unit, Trňa Fm.; **d, e, f**–Permian of the Zemplinic Unit, Černocho Fm. *Abbreviations:* Qm–monocrystalline quartz; Qp–polycrystalline quartz; P–plagioclase; K–potassium feldspar; Lv–volcanic, metavolcanic lithic grains; Lms–sedimentary, metasedimentary lithic grains; F–feldspar together; Tur–tourmaline.

