DOLOMITE

Chemical formula: $CaMg(CO_3)_2$

Crystal system: trigonal

Color in thin section: colorless

Form: usually allotriomorphic grains or aggregates of grains; rhombohedrons

Cleavage: perfect rhombohedral

Indices of refraction: n_ω = 1.679 – 1.690 n_ε = 1.500 – 1.510

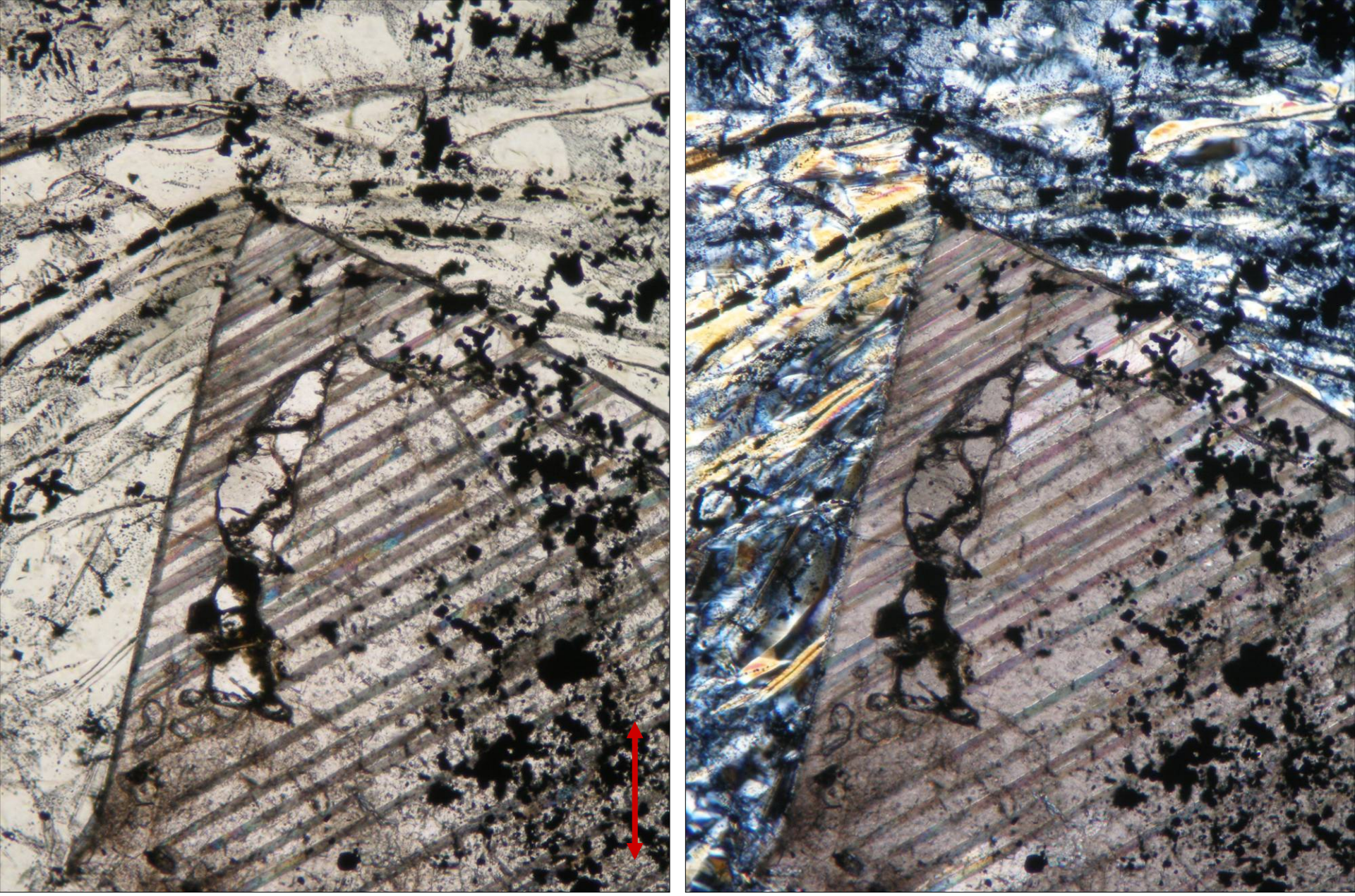
Birefringence: 0.179 – 0.182

Optic sign: uniaxial negative

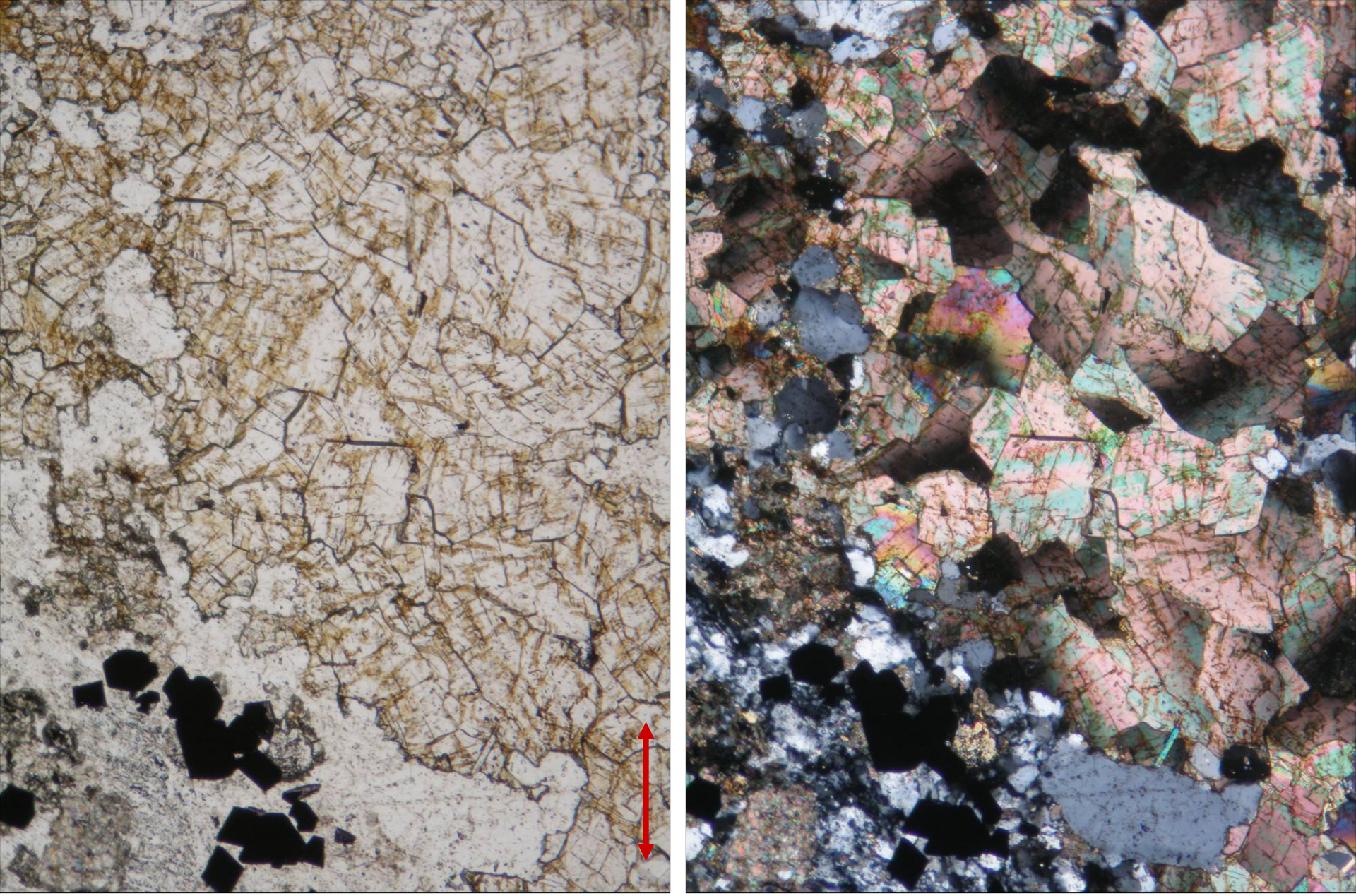
Occurrence: metamorphic rocks (marble, soapstone), carbonatites; hydrothermal veins

Similar minerals in thin sections: titanite (higher indices of refraction, different cleavage), calcite, ankerite, and siderite (it may be difficult or impossible to distinguish these carbonates optically)

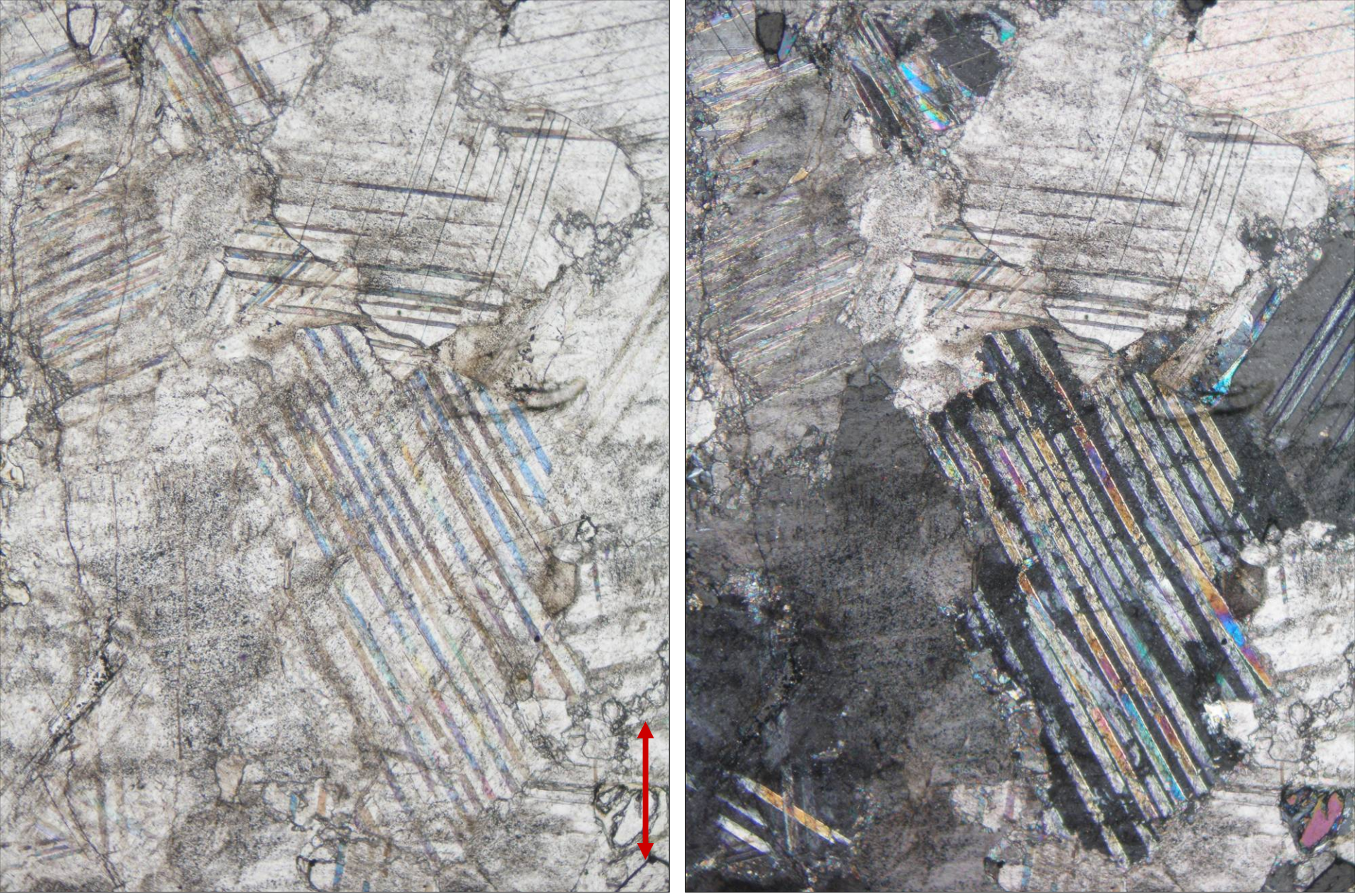
Note: lamellar twinning is moderately common



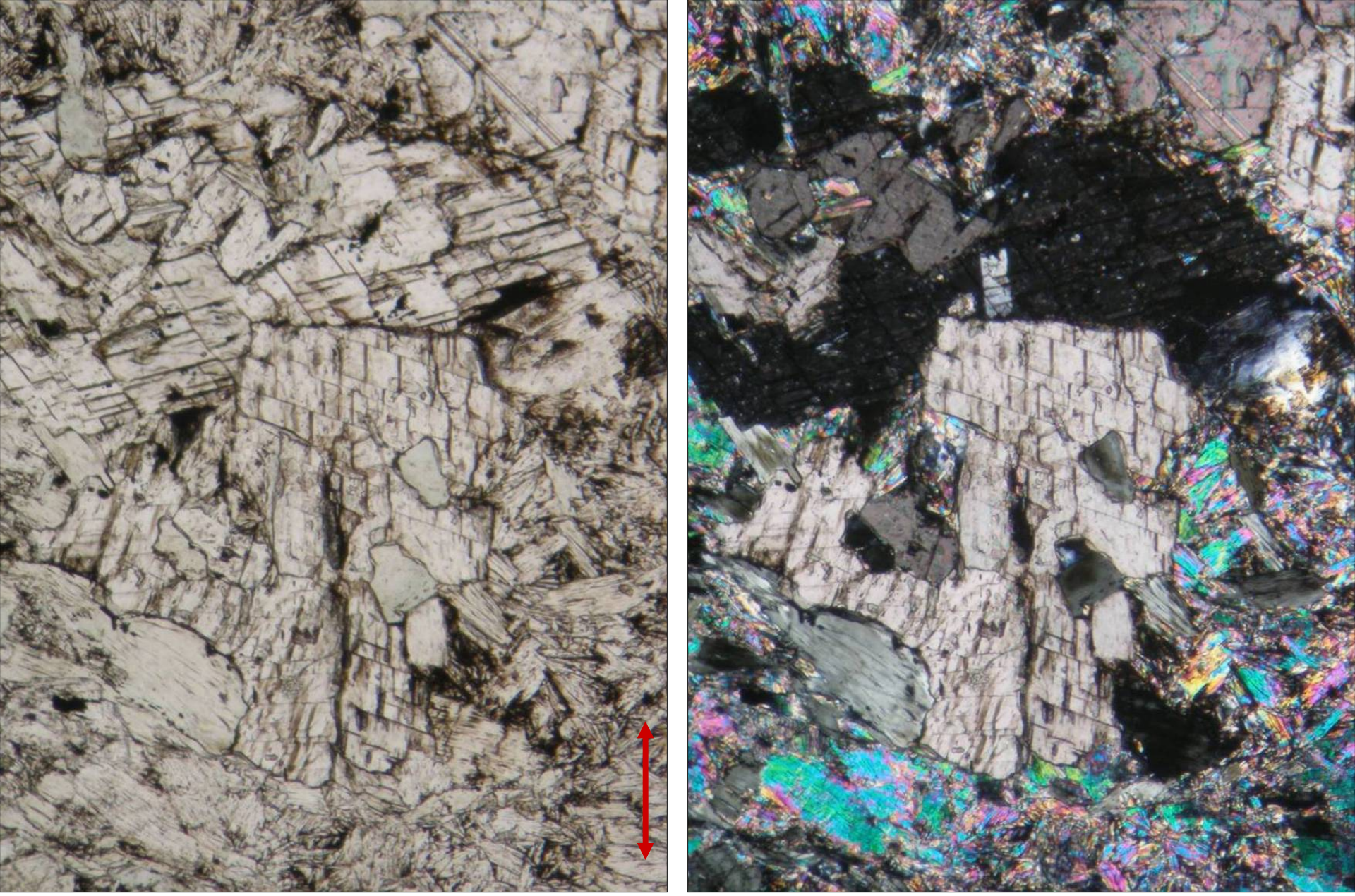
Dolomite in serpentinite from Vernířovice, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.8 mm. Photo: JiZi.



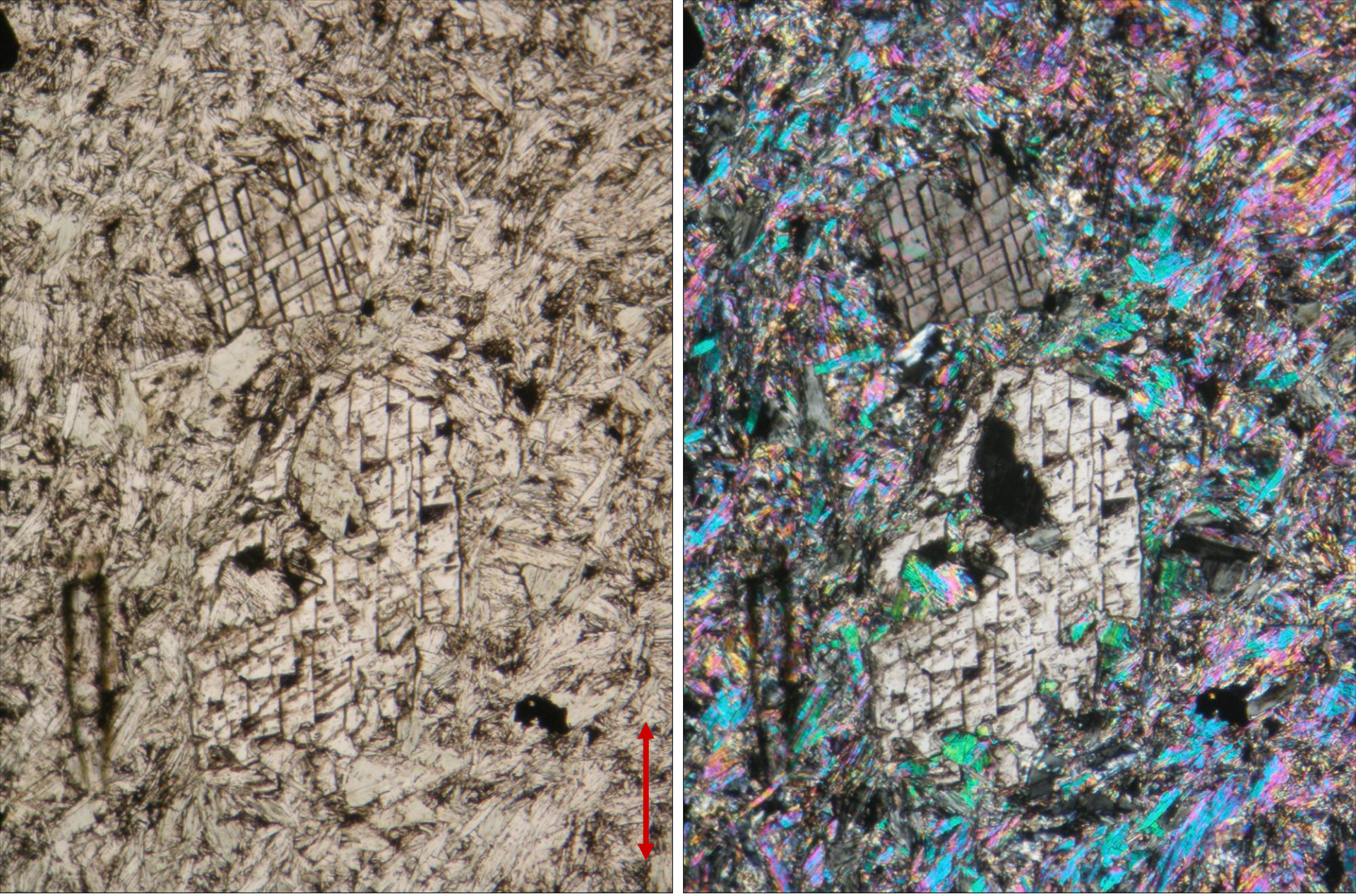
Dolomite in iron ore from Horní Město, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.8 mm. Photo: JiZi.



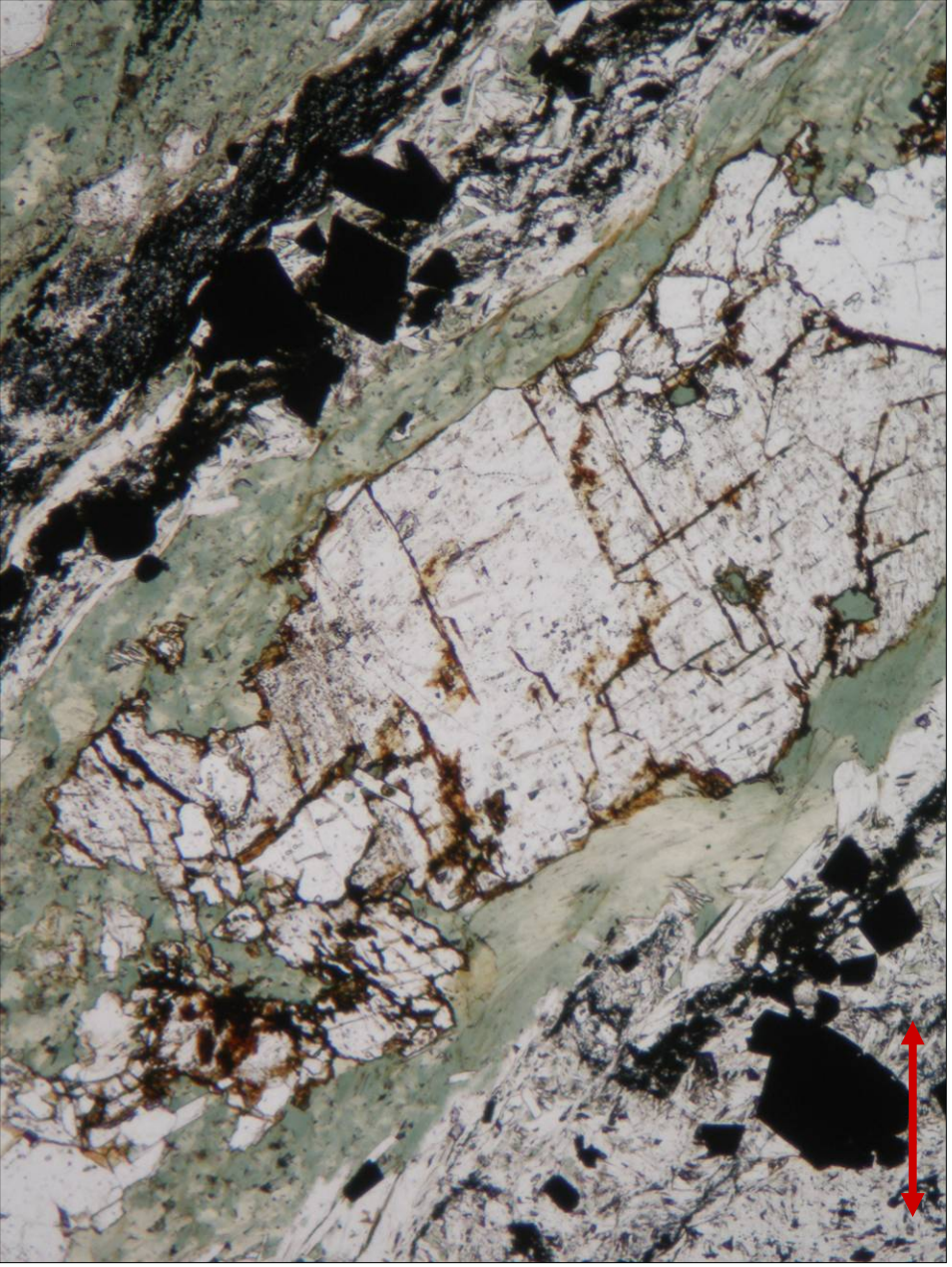
Dolomite in marble from Sokolí, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.8 mm. Photo: JiZi.

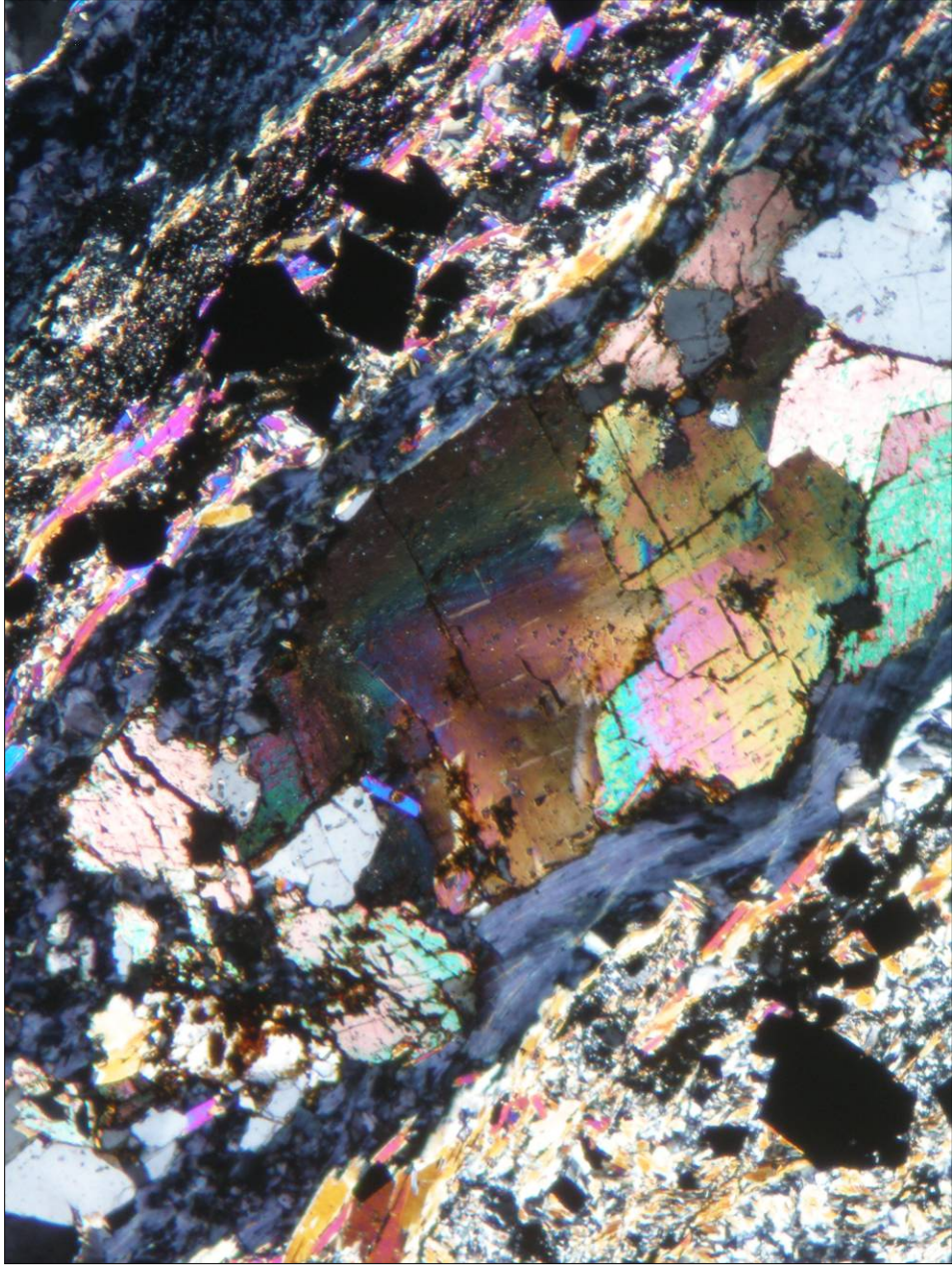


Dolomite in talc schist from Rejhotice, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.5 mm. Photo: JiZi.

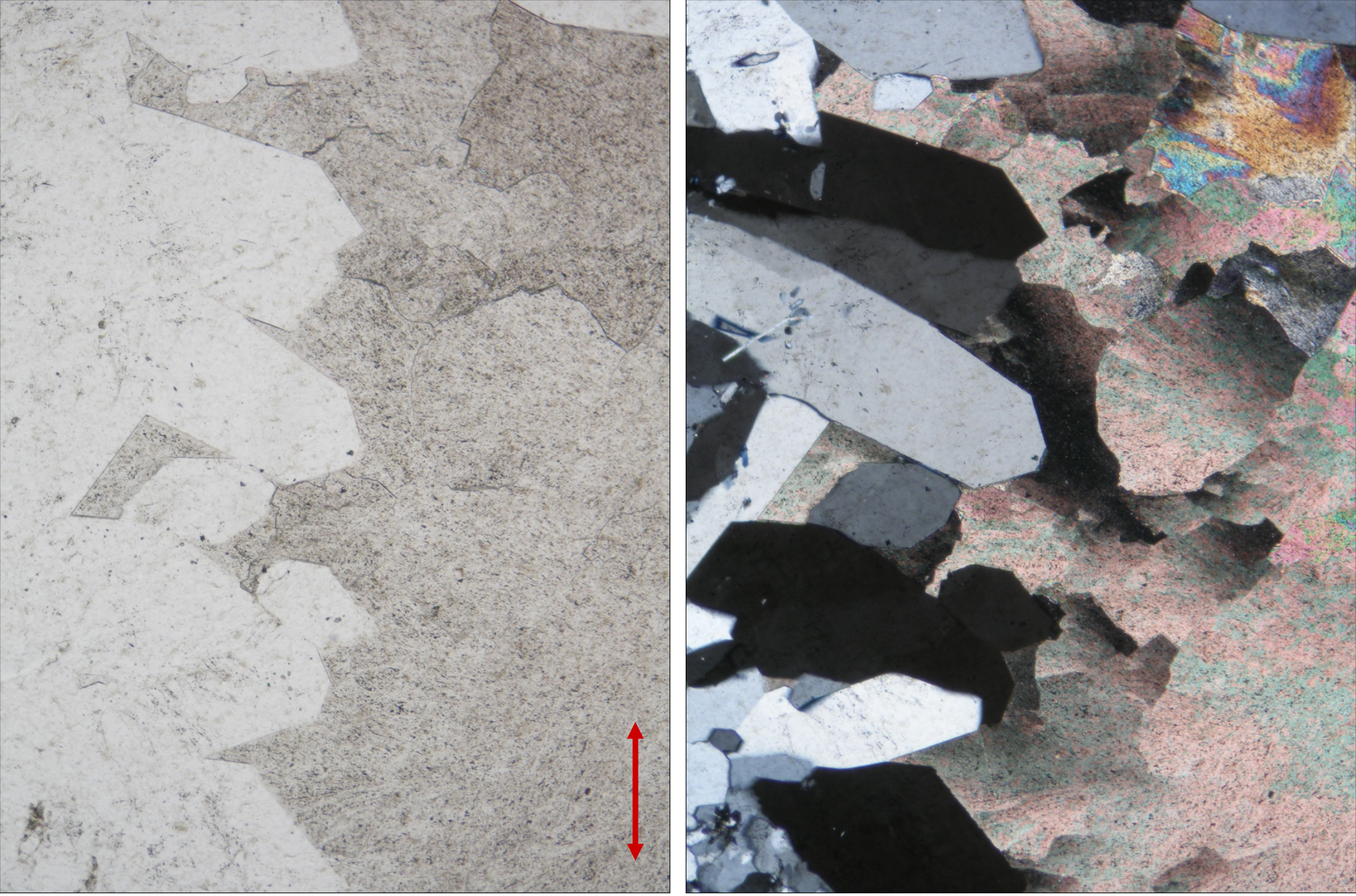


Dolomite in talc schist from Rejhotice, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.7 mm. Photo: JiZi.

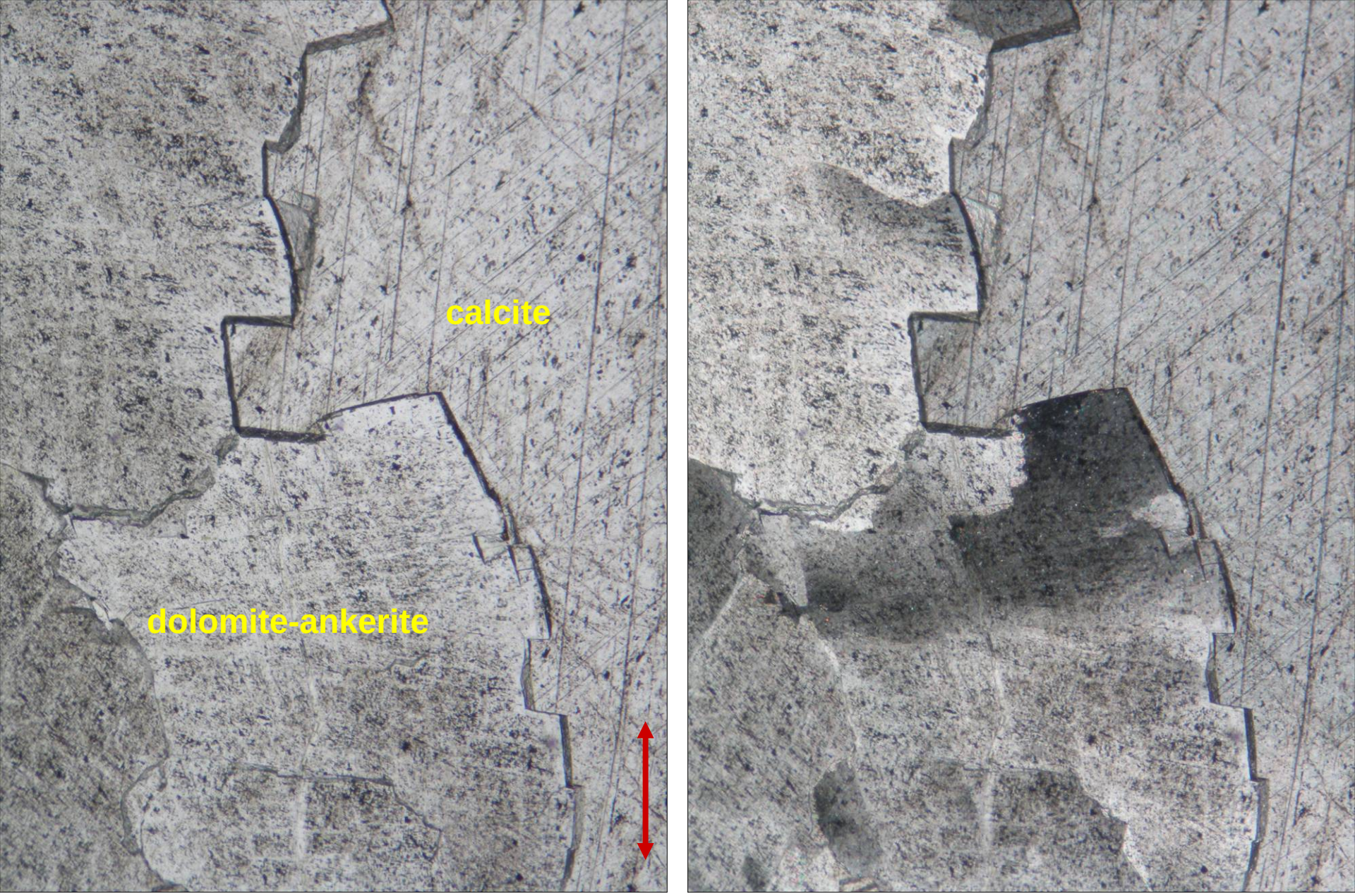




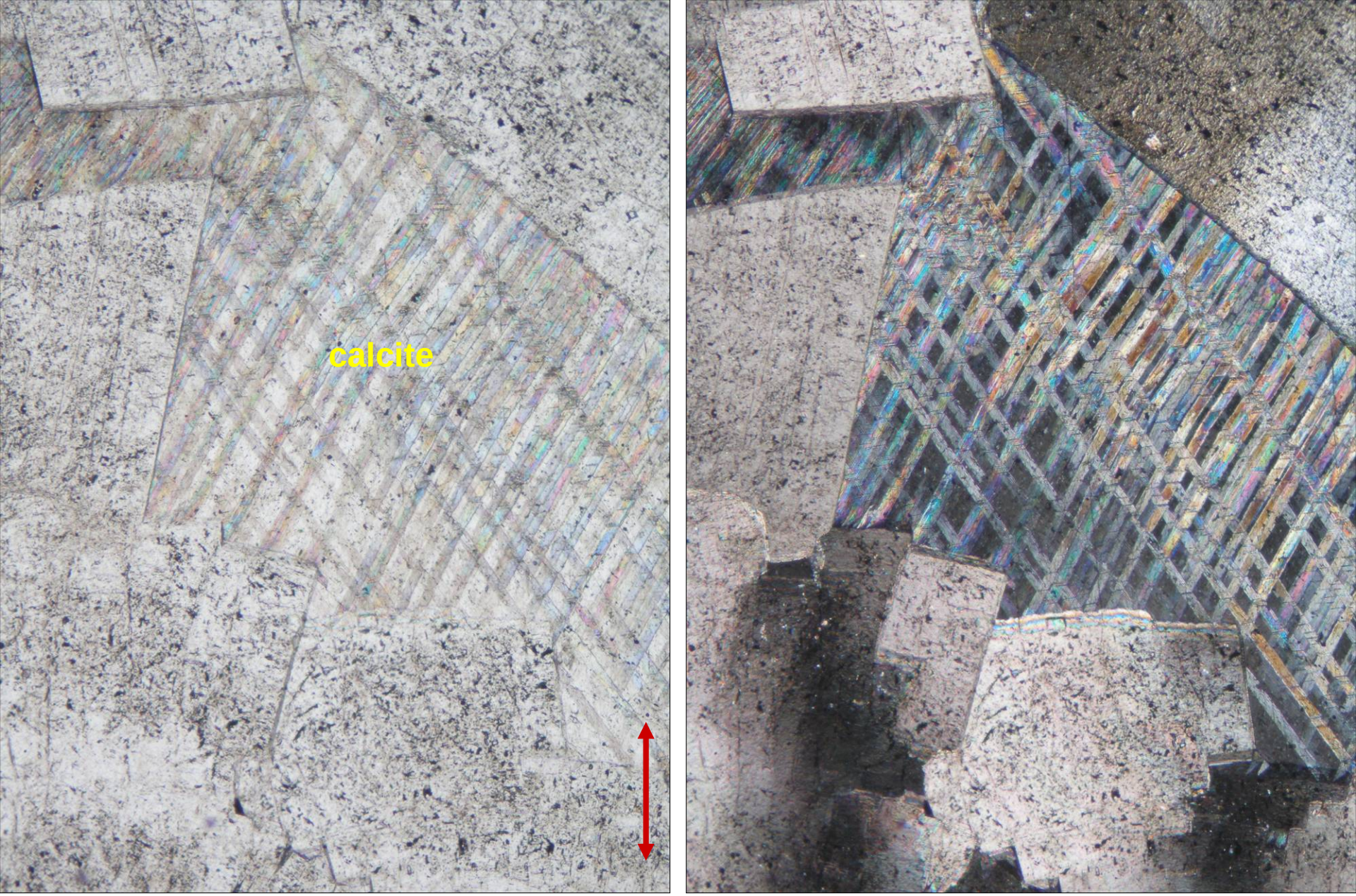
Dolomite with chlorite, magnetite and hematite in iron ore from Horní Město, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.8 mm. Photo: JiZi.



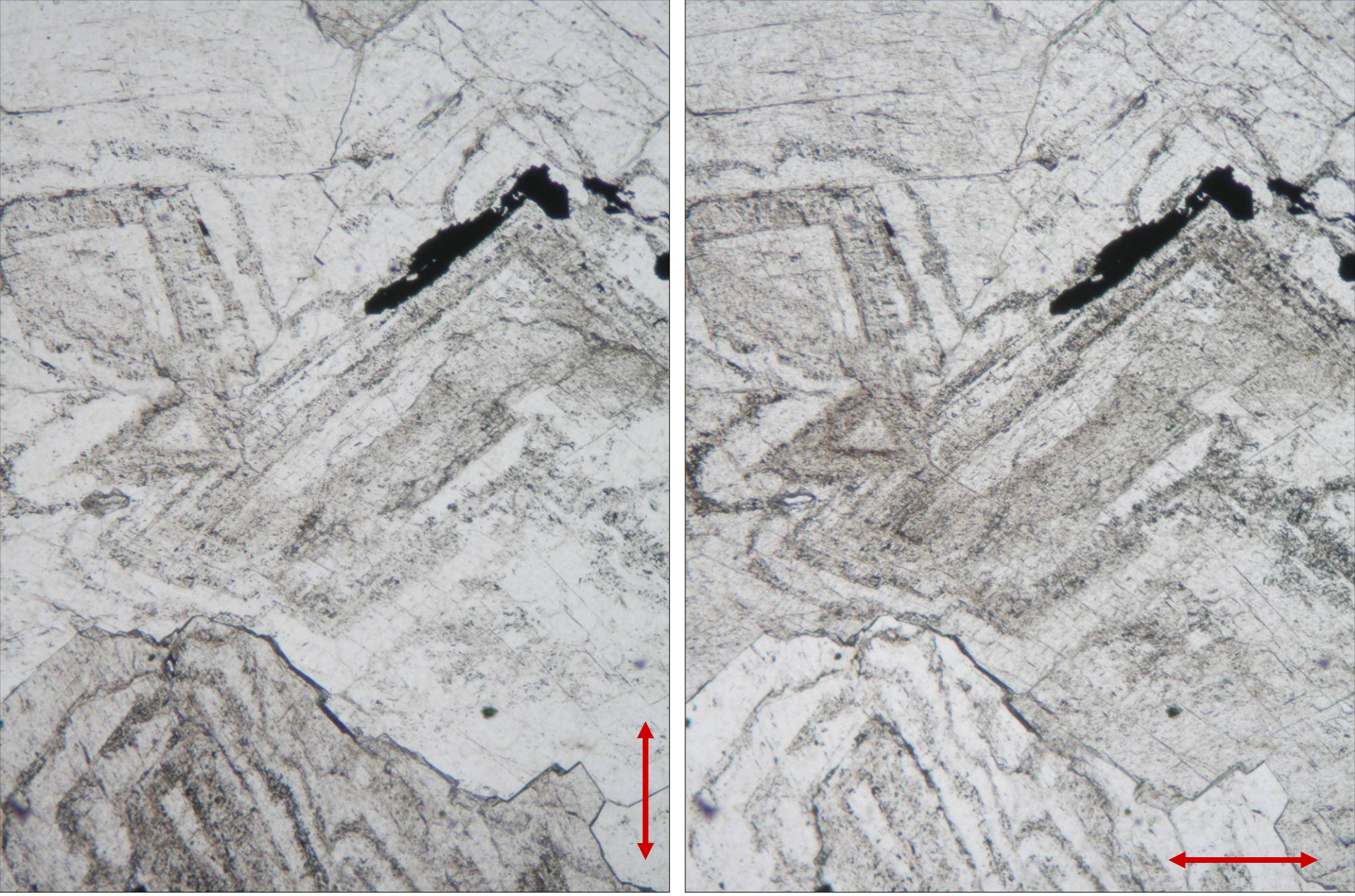
Quartz and carbonate of the dolomite-ankerite series in hydrothermal vein from Hrabůvka, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.6 mm. Photo: JiZi.



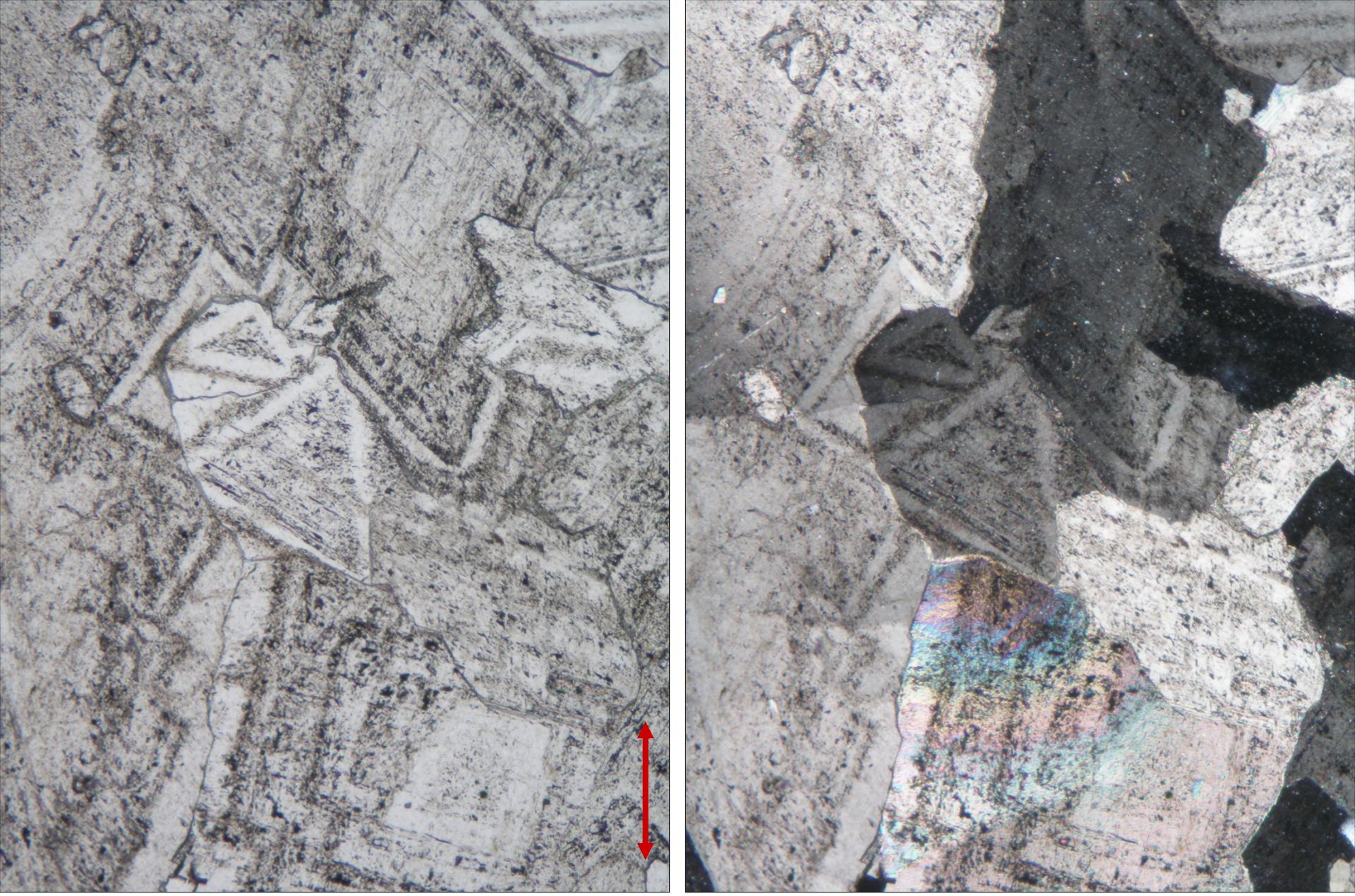
Dolomite-ankerite and calcite in a hydrothermal vein from Hrabůvka, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.7 mm. Photo: JiZi.



Dolomite-ankerite and calcite in a hydrothermal vein from Hrabůvka, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.7 mm. Photo: JiZi.



Zoning of dolomite-ankerite in a hydrothermal vein from Hrabůvka, the Czech Republic; PPL. Width of fields of view is ca. 1.8 mm. Photo: JiZi.



Zoning of dolomite-ankerite in a hydrothermal vein from Hrabůvka, the Czech Republic; PPL (left) and XPL (right). Width of fields of view is ca. 1.7 mm. Photo: JiZi.