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Photograph of the Month

Extension in a multilayer sequence along the Karakoram fault

Outcrop of marble (light layer), amphibolite (dark layer) and calc-silicate (greenish layer) folded and mylonitized along the Tangtse strand of the Karakoram fault (Tangtse Gompa, Ladakh, NW India). The reddish layer, in the lower part of the picture, at the contact between amphibolite and calc-silicate is made of cm-size garnets.

The foliation is vertical and the sense of shear deduced by kinematic indicators in the nearby mylonitic granites is dextral (see Rutter et al., 2007, Jain and Singh, 2009 for a complete description of the Tangtse strand of the Karakoram fault). Extension is accommodated in a different way in the multilayer: the marble shows a completely ductile deformation whereas the more competent amphibolite shows evidences of boudinage and the relatively most competent calc-silicate and garnet-bearing layers develop conjugate small-scale faults. Lens cap for scale 5.5 cm. 34° 01′ 33.23″ N, 78° 10′ 26.13″ E. Photograph R. Carosi. Copyright R. Carosi.

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