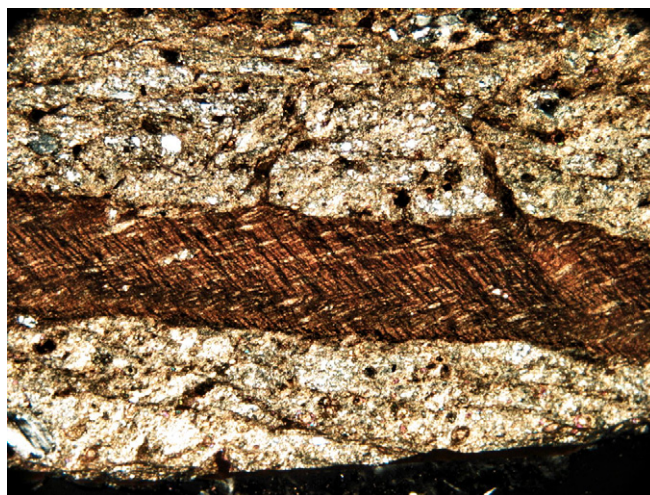




Photograph of the Month



Photomicrograph showing a deformed, foliated and crenulated pseudotachylyte band hosted in mylonitic gneiss from the Gavilgarh–Tan Shear Zone, central India. The mylonitic fabric was produced by Proterozoic amphibolite facies sinistral shearing of granitoids. This event was followed by reactivation involving slip along pre-existing foliation planes during upper greenschist facies dextral shear, leading to the generation of pseudotachylyte veins. The veins were then plastically deformed during continued dextral shearing leading to the development of an oblique mica-rich foliation which runs from bottom left to top right, anticlockwise of the vein margin (e.g. Chattopadhyay et al., 2008). A minor phase of later sinistral shear then overprinted the gneisses at shallower crustal depths, leading to the development of a local crenulation cleavage in the fine-grained mica-rich foliation solely within the pseudotachylyte vein (dark stripes oriented clockwise of vein margin).

Horizontal length of photograph = 4mm

Reference

- Chattopadhyay, A., Khasdeo, L., Holdsworth, R.E., Smith, S.A.F., 2008. Fault reactivation and pseudotachylyte generation in the semi-brittle and brittle regimes: Examples from Gavilgarh–Tan shear zone, central India. *Geol. Mag* 145 (6), 766–777.

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