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Natural quartz grains compressed as single crystals in a diamond-anvil cell and then decompressed to ambient conditions (large grain, ~120 micrometers long). The formation of amorphous phases (pink) at high pressure within the crystalline phase (blue and orange) indicates pressure-induced shear instability. Similar amorphous phases can be observed in silicates subjected to high-stress conditions in a wide range of geologic environments and may have a common, solid-state origin. See page 666; also see page 663. [Photomicrograph: Kathleen J. Kingma, with cross-polarized light]

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