

## **Formation of high-pressure and ultrahigh-pressure rocks in the overriding plate of convergent orogens**

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High-pressure (HP) and ultrahigh-pressure (UHP) metamorphic rocks typically form in the down going plate of convergent margins before they are exhumed back to Earth's surface for geologists to study. HP blueschists and associated eclogites form in the accretionary prism of the subducting slab in Pacific-type margins, whereas UHP continental eclogite terranes are most commonly derived from the downgoing plate in a continent-continent collisional setting. In a few examples, the geology requires that the HP and UHP metamorphism formed in the upper plate of the system. I will describe two different examples of UHP metamorphism in the overriding plate—one from the Greenland Caledonides, which is analogous to Tibet in the Himalayan orogeny, and the other from the Yukon–Tanana terrane, where subduction erosion carried slices of the overriding arc to great depths. These outliers suggest that the mere presence of HP or UHP rocks is insufficient evidence for identifying the subduction polarity in ancient convergent orogens.