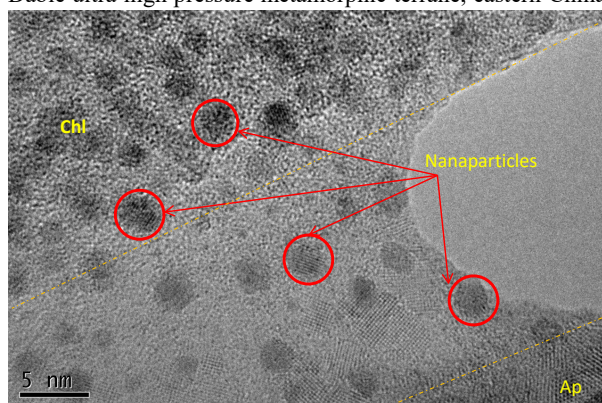


Inclusions and nanoparticles in apatite in the Sulu UHP terrane, eastern China

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Apatite generally exists in magmatic rocks, metamorphic rocks and sedimentary rocks, and is mainly divided into fluorapatite, chlorophosphorite and hydroxyapatite according to different anions. Microstructure exist obvious differences in apatite under different environment. Transmission Electron microscopy (TEM) is used to study apatite from the retrograded eclogites in the Rongcheng area of the Sulu-Dabie ultra-high pressure metamorphic terrane, eastern China.



Some microstructures (for example, chalcopyrite, pyrrhotite and chlorite) were directly observed in apatite with TEM. Evenly distributed nanoparticles is found close to chlorite encapsulated in apatite. These nanoparticles maybe bring foreign substance into apatite as a carrier and subsequently promoted chlorite crystallization in apatite.