

3-D Velocity and Poisson Ratio Structures of the Dabie Mountains

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Ultra-High Pressure (UHP) metamorphic rock belt, found in the Dabie mountains, is the largest one in the world. We did the P, S wave and Vp/Vs tomographic inversion of the area.

From the velocity images of the upper and middle crust we may see that in subsurficial layer UHP rocks spread to the north Dabie, but down to 15km disappear. UHP rocks are no root in the Dabie mountains.

On the image of the bottom of the crust a striking feature is distinct low poisson value at the bottom of the crust of the Dabie mountains suggesting rocks down there from the middle or even the upper crust after tectonic movements.

From paleomagnetic study and tomographic study we propose a model of subduction-exhumation for the South Dabie UHP rocks.