

High pressure phase of magnesiowustite and its application to the structure of the lowermost mantle

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High pressure and high temperature behavior of magnesiowustite was investigated using diamond anvil cell with both external heating and laser heating method. In situ X-ray observation under high pressure and high temperature at KEK-PF revealed the cubic to rhombohedral distortion corresponding to the magnetic transition for all sample. No high pressure phase was found within the present experimental condition at which FeO transform to the metallic NiAs structure.