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Unique microstructure of $\alpha \rightarrow \varepsilon \rightarrow \alpha$ transition in shock-compressed iron[1] MAN-LING SUI, Beijing University of technology, SHU-JUAN WANG, Shenyang National Laboratory for Materials Science, Institute of Metal Research, CAS, YONG-TAO CHEN, QING-ZHONG LI, HAI-BO HU, Institute of Fluid Physics, CAEP — Unique microstructure in recovered samples of shock-compressed iron is founded by transmission electron microscope (TEM) research. This confirms that the $\alpha \rightarrow \varepsilon \rightarrow \alpha$ martensitic transformation occurs during shock condition. Based on the specific features we reveal the mechanisms of both the transitions.

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