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Feature in Accumulation of Microdefects in Copper Under Shock-Wave Loading ALEXANDER PAVLENKO, ALEXANDER SHESTAKOV, ALEXANDER NURGALEEV, DEMETRIUS KAZAKOV, RFNC-VNIITF — The microscopy and X-ray diffraction methods were used to investigate distribution of micro-, and macro-defects in copper samples recovered after shock-wave loading. The electric gun GNUV was used to generate the shock wave. Sample loading dynamics was recovered by the free surface velocity measured based on the Doppler shift in the wavelength of the probe laser radiation (IFP and push-pull VISAR technique). In-depth distribution of defects was compared for two modes of sample loading. In the first mode, samples were loaded by the shock wave whose amplitude was insufficient for spalling, which was initiated by the shock wave in the second mode.

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