

Abstract Submitted
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Study of Elastic Precursor Decay in ultra fine copper STANISLAV FINYUSHIN, ANATOLIY MIKHAILOV, ALEXEY FEDOROV, DMITRIY NAZAROV, TATIANA GOVORUNOVA, OLGA IGNATOVA — Laser interferometer was used to investigate elastic precursor decay in ultra fine copper M1 with the grain size of 0.5 microns. Samples with the thickness of 0.7-12 mm were loaded by shock wave pulse with the pressure of 12GPa. In this particular range of thickness elastic precursor amplitude decays from 1.87 GPa to 1.04 GPa. Ultra fine copper and coarse-grained copper M1 with the grain size of 110 microns were compared with respect to the elastic precursor decay values. It is shown, that elastic precursor amplitude in ultra fine copper samples is in 2 - 3 times higher than in coarse-grained copper samples.

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