# THE INDICATOR FOIL AND WINDOW METHOD TO STUDY SHOCK-INDUCED EJECTA OF METALS

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The work presents the results of the explosive experiments to determine mass and velocities of shock-induced tin ejecta flow from the free surface of metal samples. The velocity parameters of the shock ejecta were measured via the photonic Doppler velocimetry (PDV) [1], while the ejecta mass was determined with the Asay foils and LiF windows [3]. The pressure amplitude upon the shock release at the sample free surface was ~45 GPa.

A specific experiment was performed to estimate the accuracy of mass determination using LiF windows. For this, a method for driving a powder of the known mass proposed in [4] for indicator foils was used. In this approach tungsten powder was accelerated by shock wave.

Moreover, characteristics of the ejecta flow under the above experimental conditions were numerically estimated using the MECH code [5]. Calculations were performed on computational grids with sizes ranging from 1 to 10 micrometers. The obtained estimates are in agreement with the experimental data.

## References

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