On the issue of pressure and temperature calculation in materials under impulse loading

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Impulse heat-loading is one of the most important parameters in calculating the behavior of structural elements in modern technology. Using available experimental data of structural materials, we found a method of obtaining a curve of elastic pressure. The technique helps to obtain the values of pressure and temperature behind the shock wave front without applying the hypotheses about the interaction potentials of atoms in the medium.

Keywords: *impulse loading, elastic pressure, internal energy, shock adiabat, shock wave front, temperature, heating.*

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