

## The Concept of Multifoldig and Its Experimental Validation

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The problem of energy absorption under impact loading is very important in a wide range of engineering applications. Although typically designed, passive energy absorbing systems provide a sufficient level of energy dissipation, they are unable to optimally decrease the level of acceleration. In contrast to the passive solutions, the proposed approach offers ability of structural adaptation to the conditions of the impact. Due to the presence of controllable micro-fuses, elements of the Multifolding Microstructure can optimally adjust their internal forces and therefore provide better performance in comparison to the passive absorbers. The undertaken experiment aims at the validation of the concept of multifolding and the verification of numerical models and control strategies applied in previous research.

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