Journal of Dynamic Behavior of Materials

Editor-in-Chief: E.N. BROWN

Profiles international developments in the study of dynamic behavior of materials.

Covers the science and engineering of material and structural response to dynamic loading focused on high strain-rate, impact, blast, penetration, shock response, and extreme conditions.

Includes new results on material response and development of techniques, methods, and diagnostics for the study of materials in the dynamic regime.

Journal of the Dynamic Behavior of Materials is a peer reviewed archival journal on the science and engineering of material and structural response to dynamic loading focused on high strain-rate, impact, blast, penetration, and shock response. The journal publishes experimental, theoretical, modeling and simulation, and interdisciplinary work focused both on advancement of new techniques and application of techniques to new materials and structures. Experimental techniques will include, but not be limited to, small-scale tests for constitutive response of material such as Split Hopkinson Pressure Bar, Kolsky Pressure Bar, gas-gun and powder-gun driven plate impact, direct and flier plate drive high-explosive experiments, direct and flier plate drive laser experiments, and drop tower; small-scale integrated tests for validation of material constitutive models such as Taylor Anvil, Dynamic-Tensile-Extrusion, high-explosive driven perturbed plate experiments, shock tube loading; and integrated structure level experiments as blast, impact, crash, and penetration mechanics. The journal also covers diagnostics for dynamics experiments to include but not be limited to high-speed photography, dynamic radiography, velocimetry (PDV, mPDV, VISAR, lineVISAR, etc), gages, pins, etc. Hybrid experimental-computational papers are also encouraged. In addition to primary research articles, The Journal of Dynamic Behavior of Materials publishes review articles, brief technical notes, and applications articles that discuss important emerging technologies.

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