Shock Physics Papers 1996


1996, Andreev, N.E., Veisman, M.E., Kostin, V.V. and Fortov, V.E. "Formation of a shock wave under the effect of ultrashort laser pulses" High Temp. 34 373-378

1996, Andreev, N.E., Kostin, V.V. and Fortov, V.E. "Generation of shock waves by ultrashort powerful laser pulses: Special features" High Temp. 34 971-975


1996, Ben-Dor, G., Cederbaum, G., Mazor, G. and Igra, O. "Well tailored compressive stress-strain relations for elastomeric foams in uni-axial stress compression" J. Mater. Sci. 31 1107-1113
1996, Boehler, R. "Melting of mantle and core materials at very high pressures" Phil. Trans. R. Soc. Lond. A 354 1265-1278
1996, Bondar, P.P., Boivan, V. and Plaksii, V.A. "Dilatation of double-layered cylindrical shell under internal explosive loading" Strength Mater. 28 446-451
1996, Bonnan, S. "Modélisation mésomécanique di comportement sous choc de l'aluminium poreux: Validation expérimentale", PhD thesis, Univ. of Ecole Supérieure de Mécanique et d'Aérotechnique, Poitiers, France
1996, Bourne, N.K., Millett, J.C.F. and Rosenberg, Z. "Failure in a shocked high-density glass" J. Appl. Phys. 80 4328-4331
Tatsii, V.F. and Ponyatovsky, E.G. "Dimond-like amorphous carbon and
nanocrystalline diamond obtained by detonation method" High Press. Res. 15
191-197

of tantalum and tantalum-tungsten alloys deformed at low and high strain
rates", in "Tantalum", ed. E. Chen, A. Crowson, E. Lavernia, W. Ebihara and P.
Kumar, pp. 191-201, publ. Warrendale, Pennsylvania, Minerals, Metals and
Materials Society

1996, Britan, A., Elperin, T., Igra, O. and Jiang, J.P. "Head-on collision of a planar
shock wave with a granular layer" AIP Conf. Proc. 370 971-974

1996, Britan, A.B., Zinovik, I.N., Mitichkin, S.Y. and Testov, V.G. "Investigation of
processes occurring in the relaxation zone in the action of a shock wave on a
gas-liquid foam" Tech. Phys. 41 111-116

1996, Browning, R.V. "Microstructural model of mechanical initiation of energetic
materials" AIP Conf. Proc. 370 405-408

1996, Browning, J.S. and Montoya, J.L. "Hypervelocity impact tests of optical
sensors" AIP Conf. Proc. 370 1113-1116

on the adiabats of expansion for copper, iron and aluminum" High Temp. 34
674-680

1996, Bundy, F.P., Bassett, W.A., Weathers, M.S., Hemley, R.J., Mao, H.K. and
Goncharov, A.F. "The pressure-temperature phase and transformation diagram
for carbon: Updated through 1994" Carbon 34 141-153

dynamic loading" Tribol. Int. 29 357-363

1996, Bushman, A.V., Lomonosov, I.V., Fortov, V.E., Khishchenko, K.V., Zhemokletov,
M.V. and Sutulov, Y.N. "Experimental investigation of phenylene and polystyrene
under conditions of shock loading and isentropic expansion. Equations of state
at high energy densities" J. Exper. Theor. Phys. 82 895-899

1996, Butler, D.J. and Brasher, D.G. "Joining and fabricating rhenium using explosive
metal working techniques", in "Rhenium and Rhenium Alloys", ed. B.D. Bryskin,
pp. 239-249, publ. Warrendale, PA, Minerals, Metals and Materials Society

1996, Cai, L. and Zhang, Y.-K. "Study of laser parameters optimum of laser shocking
against fatigue and fracture of metal (in Chinese)" Chinese J. Lasers A23 1117-
1120

1996, Camacho, G.T. and Ortiz, M. "Computational modelling of impact damage in
brittle materials" Int. J. Solids Structures 33 2899-2938


1996, Chen, G.Q. and Ahrens, T.J. "High-pressure melting of iron: new experiments and calculations" Phil. Trans. R. Soc. Lond. A 354 1251-1263


1996, Cline, C.F. "Dynamic compaction of ceramic powders" Indust. Ceram. 16 189-194
1996, Couturier, S. "Etude de nouveaux capteurs piézoélectriques à base de PVDF: Application à la caractérisation de chocs brefs induits par impulsion laser", PhD thesis, Univ. of Poitiers, France
1996, Couturier, S., Boustie, M., de Résséguijer, T., Hallouin, M. and Romain, J.P. "Laser driven shock pressure measurements by VF2/VF3 and PVDF gages for pulses of 2.5ns up to 10^{12} \text{W/cm}^2" AIP Conf. Proc. 370 1097-1100


1996, Ding, Z. and Gracewski, S.M. "The behaviour of a gas cavity impacted by a weak or strong shock wave" J. Fluid Mech. 309 183-209


1996, Erskine, D.J. "Increase of the dynamic range of catchup experiments by high-pass filtering" AIP Conf. Proc. 370 959-962
1996, Erskine, D.J. "Increase in velocimeter depth of focus through astigmatism" AIP Conf. Proc. 370 1007-1009
1996, Eshchenko, E.N., Menshenin, V.V. and Taluts, G.G. "Local processes in iron and 
titanium alloys upon shock-wave loading" Phys. Metals Metallog. 82 617-621
1996, Espinosa, H.D. "Modeling failure waves in brittle materials", in "Structures under 
Shock and Impact IV", ed. N. Jones, C.A. Brebbia and A.J. Watson, pp. 449-458, 
publ. Southampton, Computational Mechanics Publications
1996, Espinosa, H.D., Mello, M. and Xu, Y. "A desensitized displacement 
interferometer applied to fast moving particles in a continuum" AIP Conf. Proc. 
370 1011-1014
1996, Espinosa, H.D. "Dynamic compression-shear loading with in-material 
interferometric measurements" Rev. Sci. Instrum. 67 3931-3939
1996, Espinosa, H.D., Mello, M. and Xu, Y. "A desensitized displacement 
interferometer applied to impact recovery experiments" Appl. Phys. Letts 69 
3161-3163
1996, Evans, A.K. "Instability of converging shock waves and sonoluminescence" 
Phys. Rev. E 54 5004-5011
B.R. and Tyrrell, A.J. "Hugoniot EOS measurements at Mbar pressures" Laser 
Particle Beams 14 113-123
1996, Faccini, E.C. "Powdered tantalum metal explosively formed penetrator liners", in 
Society
1996, Falcovitz, J., Yamada, K., Nagoya, H. and Takayama, K. "Computation and 
validation of shock wave interaction with fluid inhomogeneities", in "Proc. 20th 
Int. Symp. on Shock Waves", ed. B. Sturtevant, J.E. Shepherd and H.G. Hornung, 
pp. 489-494, publ. Singapore, World Scientific
1996, Fang, Z. "Pressure dependence of Grüneisen parameter in solids" Phys Status 
Solidi B 197 39-43
1996, Fanget, A., Hereil, P.L. and Martin, C. "Influence of the polymorphic transition 
and damage in steel on 2D waves propagation" AIP Conf. Proc. 370 235-238
1996, Fanget, A. "Stability analysis of numerical solutions of wave propagation when 
pseudoviscosity is replaced by real viscosity" AIP Conf. Proc. 370 275-278
1996, Faral, B., Koenig, M., Boudenne, J.M., Batani, D., Benuzzi, A., Bossi, S., 
Temporal, M., Atzeni, S. and Löwer, T. "EOS impedance matching experiments 
at high pressure with smoothed laser beam" AIP Conf. Proc. 370 943-946
1225-1228
in the rocks of Vorotilov drill-core (Puchezh-Katunki Astrobleme) (in Russian)" 
1996, Gefken, P.R. "Spherical waves in saturated sand", IHCR-96-55, Indian Head, MD, Naval Surface Warfare Center
1996, Goel, B. and Vorobiev, O.Y. "Equation of state information from beam-target interaction experiments at KALIF" Laser Particle Beams 14 637-653
1996, Golubev, V.K., Sobolev, Y.S. and Yukina, N.A. "Effect of temperature and the initial state on the spalling fracture of alloy 36NKhTYu" Strength Mater. 28 412-414
1996, Golubev, V.K., Sobelev, Y.S. and Yukina, N.A. "Effect of the initial state on spalling of copper" Strength Mater. 28 129-130
1996, Gratz, A.J., Fisler, D.K. and Bohor, B.F. "Distinguishing shocked from tectonically deformed quartz by the use of the SEM and chemical etching" Earth Planet. Sci. Letts 142 513-521


1996, Haddow, J.B. and Jiang, L. "A study of finite amplitude plane wave propagation in a rubber-like solid" Wave Motion 24 211-225

1996, Hama, J. and Suito, K. "The search for a universal equation of state correct up to very high pressures" J. Phys.: Condens. Matter 8 67-81


17


1996, He, H.-L., Shi, S.-C., Tan, H. and Xu, K. "Shock compression of ZnO+α-Fe₂O₃ powder mixture" AIP Conf. Proc. 370 721-723


1996, Held, M. "Initiation criteria of high explosives, attacked with projectiles of different densities", in "Energetic Materials: Technology, Manufacturing and Processing", paper 42, publ. Karlsruhe, Germany, Fraunhofer Institut für Chemische Technologie


1996, Jackson, I. and Rigden, S.M. "Analysis of PVT data: Constraints in the thermoelastic properties of high-pressure minerals" Phys. Earth Planet. Inter. 96 85-112
1996, James, H.R. "An extension to the critical energy criterion used to predict shock initiation thresholds" Propell. Explos. Pyrotech. 21 8-13
1996, Jogi, V. "Predictions for multiscale shock heating of a granular energetic material", MSc thesis, Univ. of Sri Venkateswara, India


1996, Kikuchi, M., Kawamata, S., Okuda, K., Fukuoka, K. and Syono, Y. "Evaluation of shock-compacted Bi$_2$Sr$_2$CaCu$_2$O$_{8+\delta}$ by X-ray diffraction and magnetic torque measurements" AIP Conf. Proc. 370 741-744
1996, Kleven, S. "Ultrasonic inspection of explosion welded titanium clad plate" Mater. Eval. 54 557-560
1996, Kondo, K.-l. "The shock compression and rapid quenching method for exploring new phases of carbon" Diamond Related Mater. 5 13-18


1996, Lomonosov, I.V. and Fortov, V.E. "Look into the liquid phase of metal from the equation of state: Is there an agreement between shock-wave and isobaric-expansion data?" AIP Conf. Proc. 370 51-54
1996, Mashimo, T., Tashiro, S., Hirosawa, S. and Makita, K. "Fully dense Sm_2Fe_{17}N_x permanent magnets prepared by shock compression" J. Appl. Phys. 80 356-361


1996, Miller, P.J. and Sutherland, G.T. "Reaction rate modeling of PBXN-110" AIP Conf. Proc. 370 413-416


1996, Mori, Y. and Nagayama, K. "Precision optical observation system for shock waves in condensed media in 1 GPa pressure region", in "Proc. 2nd Symp. on High Speed Photography and Photonics", ed. K. Takayama and E. Sato, pp. 159-163, publ. Tohoku University, Sendai,


1996, Mustafaev, R.A. and Ragimov, R.S. "Equation of state for esters over a wide range of temperatures and pressures" Russ. J. Phys. Chem. 70 1095-1099


1996, Omote, K. and Ohigashi, H. "Temperature dependence of shear piezoelectric properties of poly(vinylidene fluoride) studied by piezoelectric resonance method" Jpn. J. Appl. Phys. 35 1818-1823


1996, Pappu, S., Kennedy, C., Murr, L.E. and Meyers, M.A. "Deformation twins in a shock loaded Ta-2.5w/o W precursor plate and a recovered, Ta-2.5w/o explosively formed penetrator" Scripta mater. 35 959-965


1996, Pécault, S. "Tolérance au choc de structures sandwiches et effets d'échelle", PhD thesis, Univ. of ENSAM, Bordeaux


1996, Piechórk, K. "Travelling wave solutions for model equations of van der Waals fluids" Arch. Mech. 48 675-709


1996, Sanai, M. "Two examples of industrial applications of shock physics research" AIP Conf. Proc. 370 463-467


1996, Surov, V.S. "Calculation of the interaction between pressure waves and a target in the presence of a foamy shield" Combust. Explos. Shock Waves 32 702-706

1996, Surov, V.S. "Propagation of waves in foams" High Temp. 34 280-287


1996, Tokheim, R.E. and Williams, G.C. "Computed and observed experimental double pulse phenomena in aluminum PRS experiments" AIP Conf. Proc. 370 1269-1272
1996, Tollier, L. "Caractérisation de chocs laser à éclairlements modérés par interférométrie Doppler Visar: Application à l'étude de l'endommagement par écaillage de matériaux métalliques", PhD thesis, Univ. of Poitiers, France
1996, Trott, W.M. "High-speed optical studies of the driving plasma in laser acceleration of flyer plates" AIP Conf. Proc. 370 921-924
1996, Utkin, A.V., Kanel, G.I., Razorenov, S.V., Baumung, K. and Rusch, D. "Diagnostics of high-power ion beam interaction with composite targets" J. Appl. Phys. 79 2180-2185


1996, Winkler, W.-D. "Elastoplastic wave propagation processes in carbide and boride ceramics (in German)", PhD thesis, Univ. of Munich, Germany
1996, Yaakobi, B., Shvarts, D., Epstein, R. and Su, Q. "X-ray backlighting imaging of mixed imploded targets" Laser Particle Beams 14 81-91
1996, Yadav, R.P. and Rana, D.A. "Effect of overtaking disturbances on strong spherical shock wave" J. Fiz. Malaysia 17(3-4) 105-112
1996, Yakushev, V.V. "Electrical effects in polarized polymer films under high velocity impact: Application to impact gauges" AIP Conf. Proc. 370 1069-1073
1996, Yamada, K. "Fast amorphization process of the crystalline powder of GeTe using a shock-wave technique" J. Alloys Compounds 236 189-194
1996, Yamada, K. "Boron carbide particles formed from an amorphous boron/graphite powder mixture using a shock-wave technique" J. Amer. Ceram. Soc. 79 1113-1116
1996, Yang, W. "Impact volatilization of calcite and anhydrite and the effects on global climate from the K/T impact crater at Chicxulub", PhD thesis, Univ. of Caltech
1996, Yasuhara, M., Watanabe, S., Kitagawa, K., Yasue, T. and Mizutani, M. "Experiment on effects of porosity in the interaction of shock-wave and foam" JSME Int. J. B 39 287-293
1996, Yoneda, A. "Complete thermodynamic analysis on Hugoniots" Phys. Earth Planet. Inter. 96 129-134
1996, Young, R.D. "Probing the shock induced reaction threshold of powder mixtures" AIP Conf. Proc. 370 673-676


1996, Zhou, X.M., Hu, J.B., Jing, F.Q. and Wang, J.G. "Sound velocity measurement for 4.2Ni2.45Fe0.35Co0.05MnW alloy under shock compression" AIP Conf. Proc. 370 109-112


1996, Zhurakhovskii, S.V. "Range of application of the acoustic approximation in high-speed collision" Strength Mater. 28 435-441


