Shock Physics Papers 1975-1979
1975, Aboudi, J. and Benveniste, Y. "A nonlinearly thermoelastic half-space under time-dependent normal and shear loading" Int. J. Solids Structures 11 709-724
1975, Aboudi, J. and Benveniste, Y. "Uniaxial wave propagation in a nonlinear thermoviscoelastic medium with temperature dependent properties" Int. J. Solids Structures 11 725-740
1975, Ahlborn, B. "A simple iteration for shock wave calculations with the enthalpy coefficient" Canad. J. Phys. 53 976-979
1975, Ahrens, H. "La courbe de référence penthrite/chlorure de potassium pour l'interprétation des évasements du bloc de plomb" Explosifs 28 156-170
1975, Ahrens, H. "Sur la qualité des coulées de blocs de plomb, pour les essais d'explosifs et leur contrôle par tarage à la melinite" Explosifs 28 171-174
1975, Asay, J.R., Hicks, D.L. and Holdridge, D.B. "Comparison of experimental and calculated elastic-plastic wave profiles in LiF" J. Appl. Phys. 46 4316-4322
1975, Barak, I. and Bar-Nun, A. "The mechanisms of amino acids synthesis by high temperature shock waves" Origins Life 6 483-506
1975, Barker, L.M. "a-phase Hugoniot of iron" J. Appl. Phys. 46 2544-2547
1975, Bauer, R.J. "An analysis of small scale gap test sensitivity data using porosity theory and nonreactive shock Hugoniots", TR 75-67, NSWC White Oak Laboratory
1975, Bloom, F. "Growth and decay of one-dimensional acceleration waves in non-linear materials with anelastic response" Int. J. Engng Sci. 13 353-367
1975, Bushanam, G.S. and Barnes, F.S. "Laser-generated thermoelastic shock wave in liquids" J. Appl. Phys. 46 2074-2082
1975, Camera, E. "Sur le problème de l'éclatement du bloc dans les essais des explosifs au bloc de trauzl" Explosifs 28 154-155
1975, Campbell, P.M., Charatis, G. and Monty, G.R. "Laser-driven compression of glass microspheres" Phys. Rev. Letts 34 74-77
1975, Chan, S.K. "Variation of radiation intensity behind an attenuating shock wave" Phys. Fluids 18 162-165
1975, Chen, P.J. and Wright, T.W. "Three-dimensional shock waves and their behavior of elastic fluids" Meccanica 10 232-238
1975, de Rosset, W.S. "Fracture of boron-epoxy composite due to impact loading" J. Compos. Mater. 9 114-117
1975, Faye, G.H. "Spectra of shock-affected rhodonite: Discussion" Amer. Mineralogist 60 939-941
1975, Fost, R.B., Oden, J.T. and Wellford Jr., L.C. "A finite element analysis of shocks and finite amplitude waves in one-dimensional hyperelastic bodies at finite strain" Int. J. Solids Structures 11 377-401
1975, Fourney, W.L., Holloway, D.C. and Dally, J.W. "Fracture initiation and propagation from a center of dilatation" Int. J. Fract. 11 1011-1029
1975, Gatignol, R. "Kinetic theory for a discrete velocity gas and application to the shock structure" Phys. Fluids 18 153-161
1975, Gilman, J.J. "Relationship between impact yield stress and indentation hardness" J. Appl. Phys. 46 1435-1436
1975, Graham, R.A. and Yang, L.C. "Inherent time delay for dielectric breakdown in shock-loaded x-cut quartz" J. Appl. Phys. 46 5300-5301
1975, Greenhut, V.A., Kingman, P.W. and Weissman, S. "The response of copper to high strain rate deformation as disclosed by electron-optical and X-ray methods" Microstruct. Sci. 3 475-490
1975, Gupta, Y.M. "Stress dependence of elastic wave attenuation in LiF" J. Appl. Phys. 46 3395-3401
1975, Gupta, Y.M. "Elastic compression to 30 kbar along <111> in shocked LiF" Appl. Phys. Letts 26 38-41
1975, Gusev, A.V. "Thermoelastic stress and temperature waves produced by a finite duration electromagnetic pulse" Strength Mater. 7 132-135
1975, Haeuseler, E. "Note sur l'établissement de la courbe de référence pour l'épreuve au bloc de plomb" Explosifs 28 152-153
1975, Hornemann, U., Pohl, J. and Bleil, U. "Compressed air gun accelerator for shock magnetization and demagnetization experiments up to 20 kbar" Z. Geophys. 41 13-22
1975, Huang, Y.K. "A third-order adiabat for solids at high pressure" J. Appl. Phys. 46 3672-3673
1975, Irvine, R.D. and Stacey, F.D. "Pressure dependence of the thermal Grüneisen parameter with the application to the Earth's lower mantle and outer core" Phys. Earth Planet. Inter. 11 157-165
1975, Kachan, M.S., Kiselev, Y.V. and Trishin, Y.A. "Interaction of shock waves with the contact surface of colliding objects" Combust. Explos. Shock Waves 11 655-659
1975, Kahn, J.S. "High-pressure phase-transformation of CaSO₄(anhydrite) during a nuclear explosion" Science 189 454-455
1975, Kieffer, S.W. "From regolith to rock by shock" The Moon 13 301-320
1975, Kosinski, W. "On the global behaviour of one-dimensional acceleration waves in a material with internal variables" Arch. Mech. 27 231-243
1975, Kosinski, W. "One-dimensional shock waves in solids with internal state variables" Arch. Mech. 27 445-458
1975, Kosinski, W. "Thermal waves in inelastic bodies" Arch. Mech. 27 733-748
1975, Kozorezov, K.I. and Sergeev, V.V. "Three-stage isentrope for the expansion of detonation products" Combust. Explos. Shock Waves 11 89-93
1975, Kozorezov, K.I. and Sergeev, V.V. "Calculation of the parameters of a shock wave near a high-explosive charge" Combust. Explos. Shock Waves 11 789-797
1975, Kuleshova, L.V. "The electrical conductivity of shock compressed monocrystals of CaF$_2$ and BaF$_2$" Phys. Solid Earth 11 693-695
1975, Legowski, Z., Stompor, T. and Włodarczyk, E. "Oblique fractures in metal cylinders under an explosive" J. Tech. Phys. 16 175-184
1975, Liu, L.-G. "On the (g, e, l) triple point of iron and the Earth's core" Geophys. J. R. Astron. Soc. 43 697-705
1975, Liu, L.-G. "High-pressure phase transformations and compressions of Ilmenite and Rutile. 1: Experimental results" Phys. Earth Planet. Inter. 10 167-176
1975, Liu, L.-G. "High-pressure phase transformations and compressions of Ilmenite and Rutile. 2: Geophysical implications" Phys. Earth Planet. Inter. 10 344-347
1975, Liu, L.-G. and Bassett, W.A. "The melting of iron up to 200 kbar" J. Geophys. Res. 80 3777-3782
1975, Lu, P.-C. "On an elementary presentation of Hugoniot's derivation of sonic speed in a fluid" Int. J. Mech. Engng Educ. 3 137-144
1975, Lysne, P.C. and Bartel, L.C. "Electromechanical response of PZT 65/35 subjected to axial shock loading" J. Appl. Phys. 46 222-229


1975, Mineev, V.N. and Savinov, E.V. "Relationship between the viscosity and possible phase transformations in shock-compressed water" Sov. Phys. JETP 656-657


1975, Morgan, J.A. "The equation of state of 347 stainless steel to 384 GPa" High Temp. High Press. 7 65-70


1975, Nabatov, S.S. and Yakushev, V.V. "An apparatus for shock wave experiments" Strength Mater. 7 367-368


1975, Neal, T. "Mach waves and reflected rarefactions in aluminum" J. Appl. Phys. 46 2521-2527


1975, Nikiforovskii, V.S. and Seryakov, V.M. "Spalling due to dynamic action on bodies with plane-parallel faces" Sov. Mining Sci. 11 23-26


1975, Piau, M. "Ondes d'accélération dans les milieux élastoplastiques viscoplastiques" J. Mécanique 14 1-38


1975, Ramaker, D.E., Kumar, L. and Harris, F.E. "Exact-exchange crystal Hartree-Fock calculations of molecular and metallic hydrogen and their transitions" Phys. Rev. Letts 34 812-814
1975, Robertson, P.B. "Experimental shock metamorphism of maximum microcline" J. Geophys. Res. 80 1903-1910
1975, Robertson, P.B. "Zones of shock metamorphism at the Charlevoix impact structures, Quebec" Geol. Soc. America Bull. 86 1630-1638
1975, Robinson, J.L. "The mechanics of wave formation in impact welding" Philos. Mag. 31 587-597
1975, Rolsten, R.F. "Impact welding and ripple formation" J. Appl. Phys. 46 4784-4788
1975, Roseman, J. and Zwas, G. "Nonlinear transformations and the numerical treatment of shocks" J. Comput. Phys. 19 229-235
1975, Schwarz, A.C. "Flyer plate performance and the initiation of insensitive explosives by flyer plate impact", SAND-75-0461, Sandia Laboratories, New Mexico
1975, Stähle, V. "Natural shock behavior of almandite in metamorphic rocks from the Ries Crater, Germany" Earth Planet. Sci. Letts 25 71-81
1975, Stepanov, G.V. "Propagation of plane waves in a viscoplastic material with linear strain hardening" Strength Mater. 7 986-990
1975, Stepanov, G.V. and Astanin, V.V. "Shock compression of some constructional materials at speeds up to 1000 m/s" Strength Mater. 7 1085-1088
1975, Stephenson, J. "A study of fluid argon via the constant volume specific heat, the isothermal compressibility, and the speed of sound and their extremum properties along isotherms" Canad. J. Phys. 53 1367-1384
1975, Suliciu, I. "Symmetric waves in materials with internal state variables" Arch. Mech. 27 841-856
1975, Thompson, P.A. and Sullivan, D.A. "On the possibility of complete condensation shock waves in retrograde fluids" J. Fluid Mech. 70 639-649
1975, Trombetti, T. "Pressure waves in sodium during a fast reactor accident" Meccanica 10 78-86
1975, Usselman, T.M. "Experimental approach to the state of the Core" Amer. J. Sci. 275 278-303
1975, Wackerle, J., Johnson, J.O. and Halleck, P.M. "Projectile velocity measurements and quartz and manganin gage pressure determinations in gas gun experiments", LASL 5844, Los Alamos Science Laboratories
1975, Wasilewski, P. "Shock-loading meteoritic bcc metal above the pressure transition: Remanent-magnetization stability and microstructure" Phys. Earth Planet. Inter. 11 P5-P11
1975, Wilmanski, K. "Thermodynamic properties of singular surfaces in continuous media" Arch. Mech. 27 517-529
1975, Yakushev, V.V., Nabatov, S.S. and Dremin, A.N. "Permittivity measurements at high dynamic pressures" Sov. Phys. JETP 42 646-647
1976, Abou-Sayed, A.S. and Clifton, R.J. "Pressure shear waves in fused silica" J. Appl. Phys. 47 1762-1770
1976, Alexander, J.M. "New forming processes for reducing wasteful cutting" Metals Technol. 3 393-411


1976, Asay, J.R. "Material ejection from shock-loaded free surfaces of aluminum and lead", SAND 76-0542, Albuquerque, New Mexico, Sandia National Laboratories


1976, Atroshchenko, E.S., Barykin, B.M., Ivanov, V.S., Krasulin, Y.L. and Spiridonov, E.G. "The effect of explosive compacting on the properties of 60% LaCrO$_3$ -40% Cr cermet" High Temp. High Press. 8 21-26


1976, Bauer, F. and Vollrath, K. "Behavior of nonlinear ferroelectric ceramics under shock waves" Ferroelectrics 12 153-156

1976, Bayman, B.F. "Model of behavior of solid objects during collision" Amer. J. Phys. 44 671-676

1976, Bedroud, Y., El-Sobky, H. and Blazynski, T.Z. "Implosing welding of mono- and bimetallic arrays of rods" Metals Technol. 3 21-28


1976, Bhargava, J. and Rehnström, Å. "Evaluation of transient stresses in concrete with electromagnetic gages" Cement Concrete Res. 6 659-666
1976, Bobrovskii, S.V., Gogolev, V.M., Zamyshlyaev, B.V., Lozhkina, V.P. and Rasskazov, V.V. "Interpolation equation of state for shale and its use for investigating the scabbing rates for strong shock waves" Sov. Mining Sci. 12 174-177
1976, Bobrovskii, S.V., Gogolev, V.M., Zamyshlyaev, B.V., Lozhkina, V.P. and Rasskazov, V.V. "Effect of thermal decomposition of the scabbing velocity due to strong shock waves in solid media" Sov. Mining Sci. 12 273-279
1976, Bowen, R.M., Chen, P.J. and McCarthy, M.F. "Thermodynamic influences on the behavior of curved shock waves in elastic fluids and the vorticity jump" J. Elasticity 6 369-382
1976, Bowen, R.M. and Chen, P.J. "On the behavior of detonation and deflagration waves in fluids with internal state variables" Arch. Mech. 28 105-114
1976, Bukowinski, M.S.T. "On the electronic structure of iron at core pressures" Phys. Earth Planet. Inter. 13 57-66
1976, Chao, E.C.T. "Mineral-produced high-pressure striae and clay polish: Key evidence for non-ballistic transport of ejecta from Ries Crater" Science 194 615-618
1976, Chartagnac, P. "Contribution à l'étude du phénomène de choc en milieu rocheux et à l'élaboration de comportement dynamique pour un calcaire compact", PhD thesis, Univ. of Paul Sabatier, Toulouse, France
1976, Crossland, B. "Review of the present state of the art in explosive welding" Metals Technol. 3 8-20
1976, Dandekar, D.P. "Loss of shear strength in polycrystalline tungsten under shock compression" J. Appl. Phys. 47 4703-4705
1976, de Longueville, Y. "Comportement de divers explosifs condensés soumis à des ondes de choc" Acta Astronautica 3 825-838
1976, Efremov, V.V. and Zakharenko, I.D. "Determination of the upper limit to explosive welding" Combust. Explos. Shock Waves 12 226-230
1976, Faruqi, M.A. "Metal forming with underwater explosion bubbles located between rigid and free surfaces" Int. J. Mach. Tool Des. Res. 16 319-324


1976, Fowler, C.M., Caird, R.S., Garn, W.B. and Erickson, D.J. "Explosively produced megagauss fields and applications" IEEE Trans. Magnetics 12 1018-1023


1976, Grady, D.E., Murri, W.J. and de Carli, P.S. "Hugoniot sound velocities and phase transformations in two silicates" J. Geophys. Res. 80 4857-4861


1976, Guz, I.S., Peretyatko, V.N., Demina, G.S. and Gulnyashkin, V.N. "Effects of grain boundaries on the hardening of lithium fluoride and iron silicide under dynamic loading" Strength Mater. 8 209-211

1976, Halleck, P.M. and Wackerle, J. "Dynamic elastic-plastic properties of single-crystal pentaerythritol tetranitrate" J. Appl. Phys. 47 976-982


1976, Hartmann, B. "Ultrasonic absorption and the Grüneisen parameter" Acustica 36 24-28


1976, Ida, Y. "Interionic repulsive force and compressibility of ions" Phys. Earth Planet. Inter. 13 97-104
1976, Jackson, I. "Melting of the silica isotypes SiO₂, BeF₂ and GeO₂ at elevated pressures" Phys. Earth Planet. Inter. 13 218-231
1976, Kaliski, S. "Rendering the explosion compression isentropic by a 'soft' layer effect" J. Tech. Phys. 17 267-274
1976, Kieffer, S.W. "Lattice thermal conductivity within the Earth and considerations of a relationship between the pressure dependence of the thermal diffusivity and the volume dependence of the Grüneisen parameter" J. Geophys. Res. 81 3025-3030
1976, Kornev, A.D., Vorobev, G.M. and Shmyreva, T.P. "Macroscopic and microscopic stresses in explosively formed coatings" Strength Mater. 8 449-451
1976, Kuznetsov, V.M. "Preservation of diamond crystals during blasting of kimberlite" Sov. Mining Sci. 12 280-283
1976, Lezaud, J.M. "Etude et réalisation d'un canon à gaz léger", PhD thesis, Univ. of Poitiers, France
1976, Ma, C.H. "Unconventional behavior of edge dislocations in a plane shock stress field" J. Appl. Phys. 47 22-23
1976, Marsh, E.T. and Mikkola, D.E. "Pulse duration effects in the shock hardening of Cu-8.7Ge" Scripta metall. 10 851-856


1976, Murr, L.E. "The role of grain boundary structure in shock-induced spallation of molybdenum" J. Appl. Phys. 47 1364-1369

1976, Murr, L.E., Inal, O.T. and Morales, A.A. "Direct observations of vacancies and vacancy-type defects in molybdenum following uniaxial shockwave compression" Acta metall. 24 261-270


1976, Neal, T. "Dynamic determinations of the Grüneisen coefficient in aluminum and aluminum alloys for densities up to 6 Mg/m^3" Phys. Rev. B 14 5172-5181


1976, Novikov, S.A. and Sinitsyn, V.A. "Effect of temperature on elastoplastic properties of steel in explosive loading" Strength Mater. 8 1482-1484


1976, Olinger, B. "The compression of stishovite" J. Geophys. Res. 81 5341-5343

1976, Olinger, B. and Halleck, P.M. "The compression of a-quartz" J. Geophys. Res. 81 5711-5714


1976, Romanova, V.I. "Shock-wave passage through an inhomogeneous medium" J. Engng Phys. 30 315-218
1976, Schneider, E. and Wagner, G.A. "Shatter cones produced experimentally by impacts in limestone targets" Earth Planet Sci. Letts 32 40-44


1976, Stepanov, G.V. and Astanin, V.V. "Determination of shear resistance behind a shock wave front" Strength Mater. 8 477-482

1976, Stepanov, G.V. "Spalling produced by elastoplastic waves in metals" Strength Mater. 8 942-947


1976, Sutherland, H.J. and Munson, D.E. "Stress wave propagation in a cloth laminate carbon phenolic" J. Compos. Mater. 10 118-128
1976, Sutherland, H.J. "Stress wave propagation in an RTV rubber" Trans. Soc. Rheology 20 409-422
1976, Tasi, J. "Reflection of nonlinear shock waves in a lattice" J. Appl. Phys. 47 5336-5343
1976, Trofimov, V.S. "Elementary technique for estimating the parameters of a high-explosive charge for the plane acceleration of a metal plate" Combust. Explos. Shock Waves 12 83-90

33


1976, Wohlford, W.P., "Two-stage telescoped launcher", United States, patent no. 4,038,903


1977, Ahrens, T.J. "Impact processes" Geotimes 22 24-26
1977, Alder, B.J. and Trigueros, M. "Suggestion of a eutectic region between the liquid and solid core of the Earth" J. Geophys. Res. 82 2535-2539
1977, Babul, W., Derentowicz, H. and Ziolkowski, Z. "Producing high dynamic pressures by using collisions of high-speed bodies" J. Tech. Phys. 18 45-55
1977, Belyakov, G.V., Rodionov, V.N. and Samosadnyi, V.P. "Heating of porous material under impact compression" Combust. Explos. Shock Waves 13 524-528
1977, Bonadies, M. and Pastrone, F. "Discontinuity wave propagation in continua with dislocations" Meccanica 12 63-65
1977, Bukowinski, M.S.T. "A theoretical equation of state for the inner core" Phys. Earth Planet. Inter. 14 333-344
1977, Chawla, K.K., Guimaraes, J.R.C. and Meyers, M.A. "Fractography of a metastable austenite" Metallography 10 201-208
1977, Cline, C.T. and Hopper, R.W. "Explosive fabrication of rapidly quenched materials" Scripta metall. 11 1137-1138
1977, Cochran, S. and Banner, D. "Spall studies in uranium" J. Appl. Phys. 48 2729-2737
1977, Dandekar, D.P. and Lamothe, R.M. "Behavior of porous tungsten under shock compression at room temperature" J. Appl. Phys. 48 2871-2879
1977, Duvall, G.E. "The shocked piezoelectric disk as a Maxwell solid" J. Appl. Phys. 48 4415
1977, Fuller, M.D. "Review of effects of shock (< 6GPa) on magnetism of lunar samples" Phil. Trans. R. Soc. Lond. A 285 409-416
1977, Graham, R.A. "An accelerometer/velocimeter with a range from 10^5g to 10^10g and a time resolution of a few nanoseconds" Appl. Phys. Letts 30 307-309
1977, Graham, R.A. "Second and third order piezoelectric stress coefficients of lithium niobate as determined by the impact loading technique" J. Appl. Phys. 48 2153-2163
1977, Guimarães, J.R.C., Gomes, J.C. and Meyers, M.A. "The effects of shock loading and grain refining on the kinetics of formation induced martensite in Fe-31% Ni-0.1%C" Trans. Jpn Inst. Metals 18 803-806
1977, Gupta, Y.M. "Effect of crystal orientation on dynamic strength of LiF" J. Appl. Phys. 48 5067-5073
1977, Harris, P. "Weak shock transmission coefficient via harmonic generation" J. Appl. Phys. 48 2131-2134
1977, Hayes, D.B. "Optimizing the initiation of detonation by flying plates", SAND 77-0268, Sandia National Laboratories
1977, Ikeda, M., Kageyama, Y. and Nagashima, A. "Equation of state for D2O in the liquid region of up to 1000 bar" Bull. JSME 20 1492-1498
1977, Jackson, I. "Melting of some alkaline-earth and transition-metal fluorides and alkali fluoroberyllates at elevated pressures: A search for melting systematics" Phys. Earth Planet. Inter. 14 143-164


1977, Kaliski, S. "Profiled, cylindrical, explosion-laser compression up to hyperhigh densities" J. Tech. Phys. 18 75-80


1977, Kaliski, S. "Variation of coefficients of a stationary shock wave reflected from a rigid wall, for a profiled pressure" J. Tech. Phys. 18 283-289

1977, Kaliski, A. "Homogenizing a jump-inhomogeneous medium by a reflectionless shock wave" J. Tech. Phys. 18 455-463


1977, Karo, A.M. and Hardy, J.R. "Molecular dynamics of shock-initiated detonations" Int. J. Quantum Chem. 12(suppl. 1) 333-343
1977, Kim, K.-S., Clifton, R.J. and Kumar, P. "A combined normal and transverse displacement interferometer with an application to impact of y-cut quartz" J. Appl. Phys. 48 4132-4139
1977, Krysanov, Y.A. and Novikov, S.A. "Dynamic compression of foamed polystyrene" Strength Mater. 9 1017-1020
1977, Kukudjanov, V.N. "On wave propagation in a coupled thermo-elastic-plastic medium" Arch. Mech. 29 325-338
1977, Kumar, P. and Clifton, R.J. "A star shaped flyer for plate-impact recovery experiments" J. Appl. Phys. 48 4850-4852
1977, Kumar, P. and Clifton, R.J. "Optical alignment of impact faces for plate impact experiments" J. Appl. Phys. 48 1366-1367
1977, Leiber, C.O. "Basic differences between dynamic and static high pressure effects" High Temp. High Press. 9 573-574
1977, Lyakhov, G.M. and Sultanov, K.S. "Interaction between a wave and an obstacle taking into account the volume viscosity of soil" Combust. Explos. Shock Waves 13 539-543
1977, Lysne, P.C. "Resistivity of shock-wave-compressed PZT 95/5" J. Appl. Phys. 48 4565-4568
1977, Maron, Y. "Technique for measuring very high surface velocities" Rev. Sci. Instrum. 48 1668-1672
1977, Meier, L.D. and Ahrens, T.J. "Longitudinal elastic velocities in MgO to 360 kbar" J. Geophys. Res. 82 2523-2528
1977, Michalec, J. "Self-similar shock and rarefaction waves in polarizable continuous media" J. Tech. Phys. 18 139-149
1977, Mogilevskii, M.A., Efremov, V.V. and Mynkin, I.O. "Crystalline lattice behavior under strong one-dimensional compression" Combust. Explos. Shock Waves 13 637-640
1977, Moodie, T.B. and Barclay, D.W. "Wave propagation from a cylindrical cavity" Acta Mech. 27 103-120
1977, Mulargia, F. "Is the common definition of the Mie-Grüneisen equation of state inconsistent?" Geophys. Res. Letts 12 920-924
1977, Novikov, S.A., Sobolev, Y.S., Glushak, B.L., Sinitsyn, V.A. and Chernov, A.V. "Effect of temperature on breaking strength on spallation of copper" Strength Mater. 9 345-347
1977, O'Keefe, J.D. and Ahrens, T.J. "Meteorite impact ejecta: Dependence of mass and energy lost on planetary escape velocity" Science 198 1249-1251
1977, Pan, V.M., Popov, A.G., Alekseevskii, V.P., Kulik, O.G. and Yanosh, V.V. "Shock synthesis of superconducting Ta₃Si" Sov. J. Low Temp. Phys. 3 335-341
1977, Pavlov, A.A. and Galiev, S.U. "Experimental investigation of the cavitation interaction of a compression wave with a plate in liquid" Strength Mater. 9 988-993
1977, Ragan, C.E., Silbert, M.G. and Diven, B.C. "Shock compression of molybdenum to 2.0 TPa by means of a nuclear explosion" J. Appl. Phys. 47 2860-2870
1977, Robinson, J.L. "Fluid mechanics of copper: Viscous energy dissipation in impact welding" J. Appl. Phys. 48 2202-2207
1977, Romanchenko, V.I., Stepanov, G.V., Astanin, V.V., Ryabov, V.R. and Kirpatyi, V.A. "Determining the strength of joints in materials under impulse loading" Strength Mater. 9 728-731
1977, Romanchenko, V.I. and Stepanov, G.V. "Time dependence of strength of bodies in cleavage" Strength Mater. 9 1110-1114
1977, Sadd, M.H. "The growth and decay of acceleration waves or arbitrary form in BKZ viscoelastic fluids" Int. J. Non-Linear Mech. 12 71-80
1977, Schneider, H. and Hornemann, U. "Preliminary data on the shock-induced high-pressure transformation of olivine" Earth Planet. Sci. Letts 36 322-324
1977, Silvestrov, V.V. "Critical energy and power for shock initiation of inhomogeneous explosives" Combust. Explos. Shock Waves 13 354-359
1977, Snell, E.O., Shyne, J.C. and Goldberg, A. "Stress-assisted and strain-induced martensite morphologies in an Fe-21Ni-0.6C alloy" Metallography 10 299-314

1977, Stepanov, G.V., Romanchenko, V.I. and Astanin, V.V. "Experimental determination of fracture stresses during cleavage in elastic-plastic materials" Strength Mater. 9 999-1003


1977, Yasumoto, Y., Nakamura, A. and Takeuchi, R. "Waveform variation of reflected acoustic shock pulse due to work-hardening at a solid-solid interface" Jpn. J. Appl. Phys. 16 189-190


1978, Birch, F. "Finite strain isotherm and velocities for single crystal and polycrystalline NaCl at high pressures and 300 K" J. Geophys. Res. 83 1257-1268


1978, Cohen, H. "Wave decay in nonhomogenous elastic rods" Arch. Mech. 30 175-188
1978, Delannoy, M. and Perrin, G. "Détermination d'un modèle d'équation d'état pour les solides à symétrie non cubique: Application à l'étude des ondes de choc" J. Mécanique 17 77-105


1978, Dick, J.J. and Vorthman, J.E. "Effect of electrical state on mechanical and electrical response of a ferroelectric ceramic PZT 95/5 to impact loading" J. Appl. Phys. 49 2494-2498


1978, Drumheller, D.S. "The theoretical treatment of a porous solid using a mixture theory" Int. J. Solids Structures 14 441-456


1978, Eyring, H. "Starvation kinetics" Science 199 740-743


1978, Holian, B.L. and Straub, G.K. "Molecular dynamics of shock waves in one-dimensional chains" Phys. Rev. B 18 1593-1608
1978, Ivanov, L.I., Litvinova, N.A. and Yanushkevich, V.A. "Relationships in the formation of shock waves during the action of laser radiation on absorbing solids" Strength Mater. 10 714-716


1978, Kaliski, S. "Disintegration of a profiled shock wave at the cumulation point" J. Tech. Phys. 19 3-11


1978, Kimura, T., Kuwata, C. and Nadai, Y. "Optimum operating technique of two-stage hypersonic gun tunnel" AIAA Journal 16 1185-1188


1978, Kumar, F. "An investigation of dislocation motion and generation in LiF single crystals subjected to plate impact", PhD thesis, Univ. of


1978, Meyers, M.A. "A mechanism for dislocation generation in shock-wave deformation" Scripta metall. 12 21-26
1978, Mock Jr., W. and Holt, W.H. "Pulse charging of nanofarad capacitors from the shock depoling of PZT 56/44 and PZT 95/5 ferroelectric ceramics" J. Appl. Phys. 49 5846-5854
1978, Murr, L.E. "Work-hardening and pressure dependence of dislocation density and arrangements in shock-loaded nickel and copper" Scripta metall. 12 201-206
1978, Oved, Y., Eidelman, S. and Burcat, A. "The propagation of blasts from solid explosives to two-phase media" Propell. Explos. 3 109-115
1978, Pavlovskii, A.I., Kolokolchikov, N.P., Dolotenko, M.I. and Bykov, A.I. "Isentropic compression of quartz by the pressure of a superstrong magnetic field" JETP Letts 27 264-266
1978, Remillard, W.J. "Examination of Eulerian and Lagrangian coordinate systems" Amer. J. Phys. 46 1228-1235
1978, Romanchenko, V.I. and Stepanov, G.V. "Analysis of the propagation of a plane wave of loading in viscoplastoelastic material" Strength Mater. 10 364-368
1978, Romanchenko, V.I., Stepanov, G.V., Amelyanovich, K.K. and Sobolev, E.V. "Fracture of glass under impulse loading" Strength Mater. 10 717-720
1978, Scheider, H. "Infrared spectroscopic studies of experimentally shock-loaded quartz" Meteoritics 13 227-233
1978, Schneider, H. "Infrared spectroscopic studies of experimentally shock-loaded quartz" Meteoritics 13 227-233
1978, Shaw, G.H. "Elastic behavior near phase transitions with negative dP/dT" J. Geophys. Res. 83 3519-2523
1978, Spivak, A.A. "Special characteristics of the explosive motion of a solid medium with measurement of the parameters of the source" Combust. Explo. Shock Waves 14 239-243

1978, Stepanov, G.V. and Astanin, V.V. "Shear strength of textolite and organic glass behind the front of a plane shock wave" Strength Mater. 10 344-346

1978, Stepanov, G.V. "A model for mechanical behavior of metallic materials under impulse loading" Strength Mater. 10 594-599


1978, Tokuoka, T. "Acceleration waves in rate type plastic material with general work-hardening" Int. J. Non-Linear Mech. 13 199-204


1978, Yakushev, V.V. "Electrical measurements in a dynamic experiment" Combust. Explos. Shock Waves 14 131-146
1978, Yousaf, M. "Motion of a strong shock wave in a medium of nonuniform density" Phys. Fluids 21 217-220
1979, Ahrens, T.J. "Equations of state of iron sulfide and constraints on the sulfur content of the Earth" J. Geophys. Res. 84 985-998


1979, Alikhanov, S.G., Bakhtin, V.P., Muzychenko, A.D. and Novikov, V.P. "High pressure generation by means of pulsed magnetic fields", in "High Pressure Science and Technology. 2: Applications and Mechanical Properties", ed. K.D. Timmerhaus and M.S. Barber, pp. 974-980, publ. New York, Plenum

1979, Anderson, O.L. "The high-temperature acoustic Grüneisen parameter in the Earth's interior" Phys. Earth Planet. Inter. 18 221-231

1979, Anderson, O.L. "Evidence supporting the approximation gr = constant for the Grüneisen parameter of the Earth's lower Mantle" J. Geophys. Res. 84 3537-3542


1979, Anisichkin, V.F. "Calculating the null isotherms of material from shock adiabats" Combust. Explos. Shock Waves 15 818-821


1979, Balendra, T. and Dundurs, J. "Cavitation at a fluid-solid boundary by an incident P-wave" Int. J. Mech. Sci. 21 537-546
1979, Barach, J.P. "Probe measurements on a shock precursor" Phys. Fluids 22 837-842
1979, Batsanov, S.S., Demidov, B.A. and Rudakov, L.I. "Use of high-current relativistic electron beam for structural and chemical transformations" JETP Letts 30 575-577
1979, Boillat, G. and Ruggeri, T. "Reflection and transmission of discontinuity waves through a shock wave: General theory including also the case of characteristic shocks" Proc. R. Soc. Edinburgh A 83 17-24
1979, Borejko, P. "Reflection and refraction of an acceleration wave at boundary between two nonlinear elastic materials" Arch. Mech. 31 373-384
1979, Brennan, B.J. and Stacey, F.D. "A thermodynamically based equation of state" J. Geophys. Res. 84 5535-5539
1979, Charest, J.A. "Development of a strain compensated shock pressure gauge", TR005, Dynasen. Inc.
1979, Chhabildas, L.C., Sutherland, H.J. and Asay, J.R. "A velocity interferometer technique to determine shear-wave particle velocity in shock loaded solids" J. Appl. Phys. 50 5196-5201
1979, Chhabildas, L.C. and Asay, J.R. "Rise-time measurements of shock transitions in aluminum, copper, and steel" J. Appl. Phys. 50 2749-2756
1979, Curran, J.H. and Carroll, M.M. "Shear stress enhancement of void compaction" J. Geophys. Res. 84 1105-1112
1979, Delpuech, A. and Cherville, J. "Relation entre la structure electronique et la sensibilité au choc des explosifs secondaires nitrés. Critère moléculaire de sensibilité 2: Cas des esters nitriques" Propell. Explos. 4 121-128


1979, Dodd, R.T. and Jarosewich, E. "Incipient melting in and shock classification of L-group chondrites" Earth Planet. Sci. Letts 44 335-340


1979, Donato, A. "Influence of a strong discontinuity on the propagation of second order discontinuities" Wave Motion 1 279-285

1979, Dor-Ram, Y., Weiss, B.Z. and Komen, Y. "Explosive cladding of Cu/Cu systems: An electron microscopy study and a thermomechanical model" Acta metall. 27 1417-1430


1979, Dunin, S.Z. and Surkov, V.V. "Dynamics of the closing of pores at the shock wave front" J. Appl. Math. Mech. 43 550-558


1979, Fairand, B.P. and Clauer, A.H. "Laser generation of high-amplitude stress waves in materials" J. Appl. Phys. 50 1497-1502
1979, Fowler, C.M., Caird, R.S., Hawke, R.S. and Burgess, T.J. "Future pulsed magnetic field applications in dynamic high pressure research", in "High Pressure Science and Technology. 2: Applications and Mechanical Properties", ed. K.D. Timmerhaus and M.S. Barber, pp. 981-992, publ. New York, Plenum
1979, Gendugov, V.M. "Diffusion flame in a turbulent boundary layer behind a shock wave sliding along a liquid propellant surface" Combust. Explos. Shock Waves 15 143-147
1979, Gendugov, V.M. "Limits of detonation in heterogeneous systems with preliminarily unmixed phases" Combust. Explos. Shock Waves 15 807-809
1979, Grady, D.E. "Interrelation of flow or fracture and phase transition in the deformation of carbonate rock" J. Geophys. Res. 84 7549-7555
1979, Gust, W.H., Steinberg, D.J. and Young, D.A. "Hugoniot parameters to 320 GPa for three types of steel" High Temp. High Press. 11 271-280


1979, Hazen, R.M. and Finger, L.W. "Bulk modulus-volume relationship for cation-anion polyhedra" J. Geophys. Res. 84 6723-6728

1979, Hemsing, W.F. "Velocity sensing interferometer (VISAR) modification" Rev. Sci. Instrum 50 73-78

1979, Henrych, J. "The Dynamics of Explosion and its Use", publ. Amsterdam, Elsevier


1979, Holian, B.L. and Straub, G.K. "Molecular dynamics of shock waves in three-dimensional solids: Transition from nonsteady to steady waves in perfect crystals and implications for the Rankine-Hugoniot conditions" Phys. Rev. Letts 43 1598-1600


1979, Ivanov, M.A. "Temperature dependence of the specific work of separation during splitting off for St. 3 and copper" Combust. Explos. Shock Waves 15 527-529

1979, Jackson, I. and Ahrens, T.J. "Shock-wave compression of single crystal forsterite" J. Geophys. Res. 84 3039-3048

1979, Jackson, I. and Ahrens, T.J. "Shock-wave compression of vitreous and rutile-type GeO$_2$: A comparative study" Phys. Earth Planet. Inter. 20 60-70


1979, Jeanloz, R., Ahrens, T.J., Mao, H.K. and Bell, P.M. "B1-B2 transition in calcium oxide from shock-wave and diamond cell experiments" Science 206 829-830
1979, Jeanloz, R. "Properties of iron at high pressure and the state of the Core" J. Geophys. Res. 84 6059-6069
1979, Jones, G.E. "The Gurney equations for multilayered fragments" J. Appl. Phys. 50 3746-3747
1979, Kaliski, S. "Possibility of obtaining internal break-even in explosion-induced conical system" J. Tech. Phys. 20 3-9
1979, Kieffer, S.W. and Delany, J.M. "Isntropic decompression of fluids from crustal and Mantle pressures" J. Geophys. Res. 84 1611-1620
1979, Kipp, M.E. "Calculation of oil shale fractures generated by a column of explosive in a borehole", in "High-Pressure Science and Technology. 2: Applications and Mechanical Properties", ed. K.D. Timmerhaus and M.S. Barber, pp. 426-432, publ. New York, Plenum
1979, Knowles, J.K. "On the dissipation associated with equilibrium shocks in finite elasticity" J. Elasticity 9 131-158
1979, Kolkert, W.J. "Calculation of the shock temperature of porous and non-porous high explosives" Propell. Explos. 4 71-72


1979, Kumar, P. and Clifton, R.J. "Dislocation movement and generation in LiF single crystals subjected to planar impact" J. Appl. Phys. 50 4747-4762


1979, Lankford, J. "Uniaxial compressive damage in a-SiC at low homologous temperatures" J. Amer. Ceram. Soc. 62 310-312


1979, Li, B. "Global structure of shock waves" Scientia Sinica 22 981-990

1979, Liu, L.-G. "High-pressure transformations of dioxides with the rutile structure", in "High-Pressure Science and Technology. 2: Applications and Mechanical Properties", ed. K.D. Timmerhaus and M.S. Barber, pp. 17-23, publ. New York, Plenum


1979, Mao, H.K. and Bell, P.M. "Equations of state of MgO and Fe iron under static pressure conditions" J. Geophys. Res. 84 4533-4536

1979, Mao, H.K., Bell, P.M., Shaner, J. and Steinberg, D. "A system of pressure calibration for the range 0.05-1.0 Mbar based on shock wave equations of state for copper, molybdenum, palladium, and silver", in "High-Pressure Science and Technology. 1: Physical Properties and Material Synthesis", ed. K.D. Timmerhaus and M.S. Barber, pp. 739-747, publ. New York, Plenum

1979, Mason, R.J., Fries, R.J. and Farnum, E.H. "Conical targets for implosion studies with a CO₂ laser" Appl. Phys. Letts 34 14-16


1979, Mindeli, E.O., Kabulashvili, V.G., Mardaleishvili, T.G. and Chagelishvili, E.S. "Effect of the initial temperature on the process of jet and wave formation with explosion welding" Combust. Explos. Shock Waves 15 410-414
1979, Ming, L.C. and Manghani, M.H. "Isothermal compression of vanadium, niobium, and tantalum to 100 kbar: Correlation with ultrasonic, shock wave, and other static data", in "High-Pressure Science and Technology. 1: Physical Properties and Material Synthesis", ed. K.D. Timmerhaus and M.S. Barber, pp. 54-62, publ. New York, Plenum
1979, Minster, J.F. and Allégre, C.J. "$^{87}$Rb-$^{87}$Sr dating of L chondrites: Effects of shock and brecciation" Meteoritics 14 235-248
1979, Molinari, A. "Onde viscoélastique non lineaire de faible amplitude" Arch. Mech. 31 447-465
1979, Mulargia, F. and Boschi, E. "Equations of state of close-packed phases of iron and their implications for the Earth's core" Phys. Earth Planet. Inter. 18 13-19
1979, Munson, D.E. and Lawrence, R.J. "Dynamic deformation of polycrystalline alumina" J. Appl. Phys. 50 6272-6282


1979, Nabatov, S.S., Dremin, A.N., Postnov, V.I. and Yakushev, V.V. "Measurement of the electrical conductivity of sulfur under superhigh dynamic pressures" JETP Letts 29 369-372


1979, Neal, T. "Determination of the Grüneisen gamma for beryllium at 1.2 to 1.9 times standard density", in "High-Pressure Science and Technology. 1: Physical Properties and Material Synthesis", ed. K.D. Timmerhaus and M.S. Barber, pp. 80-87, publ. New York, Plenum


1979, Olinger, B. "Determining the dynamic properties of Devonian gas shale", in "Proc. 20th US Symp. on Rock Mechanics", pp. 581-584, publ. Austin, TX, University of Austin
1979, Olinger, B. "Oil shales under dynamic stress", in "High-Pressure Science and Technology. 2: Applications and Mechanical Properties", ed. K.D. Timmerhaus and M.S. Barber, pp. 303-316, publ. New York, Plenum
1979, Ostrovsky, I.A. "The thermodynamics of substances at very high pressures and temperatures and some mineral reactions in the Earth's mantle" Phys. Chem. Minerals 5 105-118
1979, Persson, A. and Dubugnon, O. "High speed photography analysis of cylindrical shock wave generated by explosive charges" Proc. SPIE 189 747-750

1979, Ramakrishna, M. and Babu, S.V. "Dissociation in dilute mixtures of shock heated O₂ and HCl in air" Chem. Phys. 36 259-270


1979, Ree, F.H. "Systematics of high-pressure and high-temperature behavior of hydrocarbons" J. Chem. Phys. 70 974-983


1979, Rodionov, V.N., Spivak, A.A. and Tsvetkov, V.M. "Change in the permeability of a medium in the inelastic deformation zone during an underground explosion", in "High-Pressure Science and Technology. 2: Applications and Mechanical Properties", ed. K.D. Timmerhaus and M.S. Barber, pp. 397-406, publ. New York, Plenum


1979, Roy, A. "Response of an elastic solid to nonuniformly expanding surface loads" Int. J. Engng Sci. 17 1023-1038


1979, Schuler, K.W. and Grady, D.E. "Compression wave studies on Solenhofen limestone", SAND76-0279, Sandia National Laboratory

1979, Setchell, R.E. "Index of refraction of shock-compressed fused silica and sapphire" J. Appl. Phys. 50 8186-8192


1979, Stanton, P.L. and Graham, R.A. "Shock wave compression of lithium niobate from 2.4 to 44 GPa" J. Appl. Phys. 50 6892-6901

1979, Steinberg, D.J. and Banner, D.L. "Accounting for resistive hysteresis in calibrating Manganin stress gauges undergoing dynamic loading" J. Appl. Phys. 50 235-238
1979, Stepanov, G.V. and Romanchenko, V.I. "Some problems of empirically determining strength parameters of materials with respect to cleavage fracture in plane waves" Strength Mater. 11 1154-1158
1979, Strenzwilk, D.F. "Shock profiles caused by different end conditions in one-dimensional quiescent lattices" J. Appl. Phys. 50 6767-6772
1979, Strumia, A. "Evolution law of a weak discontinuity crossing a non characteristic shock in a nonlinear dielectric medium" Meccanica 14 67-71
1979, Terao, K. and Kobayashi, H. "Stochastic aspect of the transition from combustion to detonation" Jpn. J. Appl. Phys. 18 1463-1467
1979, Timmerhaus, K.D. and Barber, M.S., Eds. "High-Pressure Science and Technology. 2: Applications and Mechanical Properties", publ. New York, Plenum
1979, Tobe, T., Kato, M. and Obara, H. "Metal forming by underwater wire explosion. 1: An analysis of plastic deformation of circular membranes under impulsive loading" Bull. JSME 22 271-278
1979, Tobe, T., Kato, M. and Obara, H. "Pressure pulses produced by underwater wire explosions in electric discharge metal forming" Bull. JSME 22 613-619
1979, Tokuoka, T. "One-dimensional plastic materials with work-hardening. 2: Acceleration waves" J. Engng Math. 13 19-31
1979, Trebinski, R., Trzcinski, W. and Wlodarczyk, E. "On pressure-pulse penetration into three-component system" J. Tech. Phys. 20 75-89
1979, Trefilov, V.I. and Savvakin, G.I. "Direct conversion of noncrystalline carbon to diamond and enhanced rate of diffusion conversion under conditions of high pulsed pressures and temperatures" Sov. Phys. Dokl. 24 489-491
1979, Trimble, J.J. "Manganin pressure measurements under conditions where gage deformation occurs", ARBRL-TR-02180, Aberdeen, MD, US Army Ballistic Research Laboratory
1979, Villaggio, P. "Concavity techniques with application to shock problems" J. Elasticity 9 29-41


1979, Wein, O. and Mitschka, P. "Ähnlichkeitslösung des Rayleighschen Problems für ein total-automorphes Modell des viskoelastischen Verhaltens" Acta Mech. 34 99-113


1979, Wlodarczyk, E. "On an approximate solution of the problem of multiple-refraction of loading shock wave in a layer medium" J. Tech. Phys. 20 173-183


1979, Wlodarczyk, E. "On disintegration of arbitrary discontinuity resulting from collision of two stationary shock waves overtaking each other in polytropic gas" J. Tech. Phys. 20 429-439


1979, Wojno, W. "Perturbation solution for rigid-viscoplastic spherical container" Arch. Mech. 31 407-422


1979, Yakupov, R.G. "Plastic deformation of a shallow spherical shell under explosive load" Strength Mater. 11 140-144


