

Shock Physics Papers 1993

- 1993, Abdirashidov, A., Karshiev, A.B. and Noraliev, N.K. "Effect of deepening of a perturbation source in a plate on the parameters of a shock wave in a liquid" *Int. Appl. Mech.* 29 459-461
- 1993, Abeyaratne, R. and Knowles, J.K. "Nucleation, kinetics and admissibility criteria for propagating phase boundaries", in "Shock Induced Transitions and Phase Structures in General Media", ed. J.E. Dunn, R. Fosdick and M. Slemrod, pp. 1-33, publ. Berlin, Springer
- 1993, Adam, C.R., Bowden, A.V.B., Metcher, G.D. and Richards, J., "Hypervelocity sabot", United States, patent no. 5,239,930
- 1993, Addessio, F.L. and Johnson, J.N. "Rate-dependent ductile failure model" *J. Appl. Phys.* 74 1640-1648
- 1993, Ahrens, T.J. "Equation of state", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 75-114, publ. New York, Springer-Verlag
- 1993, Ahrens, T.J. and Rubin, A.M. "Impact induced tensional failure in rock" *J. Geophys. Res.* 98 1185-1203
- 1993, Amanbaev, T.R. and Ivandaev, A.I. "Influence of collisions of small particles with large particles on the propagation of shock-waves in two-phase, two-fraction aerosols" *J. Appl. Mech. Tech. Phys.* 34 629-633
- 1993, Anderson, O.L. and Isaak, D.G. "The dependence of the Anderson-Grüneisen parameter d_T upon compression at extreme conditions" *J. Phys. Chem. Solids* 54 221-227
- 1993, Anderson, O.L., Isaak, D. and Oda, H. "A thermodynamic theory of the Grüneisen ratio at extreme conditions" *Phys. Chem. Minerals* 19 369-390
- 1993, Andrews, E.W. and Kim, K.-S. "Deformation recovery experiment for penetration dynamics", in "Experimental Techniques in the Dynamics of Deformable Solids (AMD 165)", ed. K.T. Ramesh, pp. 49-59, publ. New York, American Society of Mechanical Engineers
- 1993, Anischenko, G.Y., Kozlovsky, V.N., Kozlov, E.A., Litvinov, B.V. and Samylov, S.V. "Experimental measurements for the radial distribution of a ball sample material density under explosive spherical compression" *Proc. SPIE* 1801 928-936
- 1993, Apazidis, N. "Focusing of weak shock waves on a target in a parabolic chamber" *Shock Waves* 3 1-10
- 1993, Asay, J.R. and Shahinpoor, M., eds. "High-Pressure Shock Compression of Solids", publ. New York, Springer-Verlag
- 1993, Asay, B.W., Ramsay, J.B., Anderson, M.U. and Graham, R.A. "Shock response of the commercial high explosive Detasheet" *Shock Waves* 3 267-271

- 1993, Askaryan, G.A. and Yurkin, A.V. "Nanosecond photography of fast processes in invisible (UV) light with a nitrogen laser and new study of a train of shock waves" JETP Letts 58 563-567
- 1993, Atroshenko, S.A., Meshcheryakov, Y.I., Nesperova, E.V. and Rybin, V.V. "On dynamic recrystallization at the localized shear bands induced by impact loading" Phys. Metals Metallog. 75 427-436
- 1993, Avrorin, E.N., Vodolaya, B.K., Simonenko, V.A. and Fortov, V.E. "Intense shock waves and extreme states of matter" Physics Uspekhi 36 337-364
- 1993, Ayax, E. "Caractérisations expérimentales et modélisation du comportement d'une plaque composite tissée en régime balistique", PhD thesis, ENSAM, Bordeaux I
- 1993, Backofen, J.E. and Weickert, C.A. "A 'Gurney' formula for forward projection from the end of an explosive charge", in "Proc. 14th Int. Symp. on Ballistics. Vol. 2", ed. M.J. Murphy and J.E. Backofen, pp. 59-68, publ. Arlington, Virginia, American Defence Preparedness Association
- 1993, Bandak, F.A., Tsai, D.H., Armstrong, R.W. and Douglas, A.S. "Formation of nanodislocation dipoles in shock-compressed crystals" Phys. Rev. B. 47 11681-11687
- 1993, Barker, L.M., Shahinpoor, M. and Chhabildas, L.C. "Experimental and diagnostic techniques", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 43-74, publ. New York, Springer-Verlag
- 1993, Barrera, G.D. and Batana, A. "Lattice dynamics, thermal expansion, and third-order elastic constants of semimetallic metals" Phys. Stat. Sol. B 179 59-75
- 1993, Barrera, G.D. and Batana, A. "Thermal expansion and third-order elastic constants of fcc metals" Comput. Chem. 17 83-90
- 1993, Barrera, G.D. and Batana, A. "Quasi-harmonic lattice dynamics of noble metals" Phys. Rev. B 47 8588-8593
- 1993, Batsanov, S.S., Bokarev, V.P., Maksimov, I.I. and Tumanov, V.A. "Forming pumice by static-dynamic compression of silicon, germanium, and tin oxide powders" Combust. Explos. Shock Waves 29 652
- 1993, Batsanov, S.S. "On the kinetics of chemical reactions in solids under shock compression (a review)" Propell. Explos. Pyrotech. 18 100-105
- 1993, Batsanov, S.S., Kopaneva, L.J., Lazareva, E.V., Kulikova, I.M. and Barinsky, R.L. "On the nature of boron nitride E-phase" Propell. Explos. Pyrotech. 18 352-355
- 1993, Baumung, K., Karow, H.U., Bluhm, H.J., Hoppe, P., Rusch, D., Kanel, G.I., Utkin, A.V. and Razorenov, S.V. "Light-ion beam-target interaction experiments on KALIF" Nuovo Cimento A 106 1771-1180
- 1993, Beard, B.C., Sandusky, H.W., Glancy, B.C. and Elban, W.L. "Quantitative correlation of XPS linewidth with dislocation density in shock-loaded ammonium perchlorate" Surface Interface Anal. 20 140-148

- 1993, Belmas, R., Plotard, J.P., Bianchi, C., Leroy, M., Nicollet, M. and Meillot, E. "Un modèle de points chauds fondé sur l'implosion de la porosité microstructurale" Propell. Explos. Pyrotech. 18 217-222
- 1993, Beloshapko, A.G., Bukaemskii, A.A., Gubareva, N.V., Kuzmin, I.G. and Staver, A.M. "Dynamic synthesis of zirconium dioxide powders" Combust. Explos. Shock Waves 29 740-743
- 1993, Beloshapko, A.G., Bukaemskii, A.A., Kuzmin, I.G. and Staver, A.M. "Ultradispersed stabilized zirconium dioxide powder synthesized by the dynamic method" Combust. Explos. Shock Waves 29 772-773
- 1993, Ben-Dor, G., Mazor, G., Mond, M., Igra, O., Heilig, W. and Reichenbach, H. "Reflection of planar shock waves from rubber walls: Uniaxial strain case" AIAA Journal 31 2184-2186
- 1993, Ben-Dor, G., Mazor, G., Igra, O., Sorek, S. and Onodera, H. "Shock wave interaction with cellular materials. 2: Open cell foams; experimental and numerical results" Shock Waves 3 167-179
- 1993, Benson, D.J. and Schoenfeld, S. "A total variation diminishing shock viscosity" Comput. Mech. 11 107-121
- 1993, Benson, D.J. "An analysis of void distribution effects on the dynamic growth and coalescence of voids in ductile metals" J. Mech. Phys. Solids 41 1285-1308
- 1993, Bernecker, R.R. and Clairmont Jr., A.R. "Shock initiation (2-D) study of some porous plastic-bonded explosives: PBXW-108 and PBXN-109", NSWC TR-93-80, Naval Surface Warfare Center, Silver Spring, Maryland
- 1993, Bernecker, R.R. and Clairmont Jr., A.R. "Shock initiation (2-D) study of two cast, elastomeric, plastic-bonded explosives: PBXW-108 and PBXN-109", NSWC TR-93-82, Naval Surface Warfare Center, Silver Spring, Maryland
- 1993, Boehler, R. "Temperatures in the Earth's core from melting-point measurements of iron at high static pressures" Nature 363 534-536
- 1993, Bohor, B.F., Betterton, W.J. and Krogh, T.E. "Impact-shocked zircons: Discovery of shock-induced textures reflecting increasing degrees of shock metamorphism" Earth Planet. Sci. Letts 119 419-424
- 1993, Boness, D.A. and Brown, J.M. "Bulk superheating of solid KBr and CsBr with shock waves" Phys. Rev. Letts 71 2931-2934
- 1993, Boslough, M.B. and Asay, J.R. "Basic principles of shock compression", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 7-42, publ. New York, Springer-Verlag
- 1993, Boteler, J.M. and Gupta, Y.M. "Shock induced splitting of the triply degenerate Raman line in diamond" Phys. Rev. Letts 71 3497-3500
- 1993, Bragov, A.M. and Grushevskii, G.M. "Influence of the moisture content and granulometric composition on the shock compressibility of sand" Tech. Phys. Letts 19 385-386

- 1993, Brannon, R.M. and Drugan, W.J. "Influence of nonclassical elastic plastic constitutive features on shock wave existence and spectral solutions" *J. Mech. Phys. Solids* 41 297-330
- 1993, Brenner, D.W., Robertson, D.H., Elert, M.L. and White, C.T. "Detonations at nanometer resolution using molecular dynamics" *Phys. Rev. Letts* 70 2174-2177
- 1993, Britan, A.B. and Kortsenshtein, N.M. "Drop evaporation behind shock waves in a dry foam" *J. Appl. Mech. Tech. Phys.* 34 480-485
- 1993, Buchar, J. and Hrebicek, J. "The dynamic (spall) strength of steels" *Czech. J. Phys.* 43 73-85
- 1993, Buchar, J. "Supersonic crack propagation in basalt" *Czech. J. Phys.* 43 197-200
- 1993, Budge, K.G. and Peery, J.S. "RHALE: A MMALE shock physics code written in C++" *Int. J. Impact Engng* 14 107-120
- 1993, Bugrov, N.V. and Zakharov, N.S. "Numerical modeling of laser shock waves in condensed media" *J. Appl. Mech. Tech. Phys.* 34 15-21
- 1993, Bulgakova, N.M. and Kuznetsov, L.I. "Effect of external conditions on the formation of pressure pulsations on a target irradiated by a laser" *J. Appl. Mech. Tech. Phys.* 34 62-66
- 1993, Bushman, A.V., Kanel, G.I., Ni, A.L. and Fortov, V.E. "Intense Dynamic Loading of Condensed Matter", publ. Washington DC, Taylor & Francis
- 1993, Bushman, A.V., Zhernokletov, M.V., Lomonosov, I.V., Sutulov, Y.N., Fortov, V.E. and Khishchenko, K.V. "Investigation of plexiglas and teflon in second shock compression and isentropic unloading waves. Equation of state of polymers at high energy densities" *Dokl. Physics* 38 165-167
- 1993, Bushman, A.V., Lomonosov, I.V., Fortov, V.E., Khishchenko, K.V., Zhernokletov, M.V. and Sutulov, Y.N. "Shock compressibility and equation of state of a polyimide" *JETP Letts* 58 620-624
- 1993, Bushman, A.V., Zhernokletov, M.V., Lomonosov, I.V., Sutulov, Y.N., Fortov, V.E. and Khishchenko, K.V. "Investigation of plexiglas and teflon in second shock compression and in isentropic unloading waves: Equation of state of polymers at high energy densities" *Physics Doklady* 38 165-167
- 1993, Bushman, A.V., Vorobev, V.S., Korobenko, V.N., Rakhel, A.D., Savvatimskii, A.I. and Fortov, V.E. "Diamond production as a result of electrical explosions of graphite-containing samples" *Int. J. Thermophys.* 14 565-572
- 1993, Bushman, A.V., Fortov, V.E. and Lomonosov, I.V. "Investigations of metals in the liquid and plasma states by use of shock waves" *J. Non-Cryst. Solids* 156 631-638
- 1993, Campbell, A. and Heinz, D. "An amorphous phase on the anorthite Hugoniot" *Geophys. Res. Letts* 20 237-240

- 1993, Carnell, M.T., Alcock, R.D. and Emmony, D.C. "Optical imaging of shock waves produced by a high-energy electromagnetic transducer" *Phys. Med. Biol.* 38 1575-1588
- 1993, Cauble, R., Phillion, D.W., Hoover, T.J., Holmes, N.C., Kilkenny, J.D. and Lee, R.W. "Determination of 0.75 Gbar planar shocks in X-ray driven colliding foils" *Phys. Rev. Letts* 70 2102-2105
- 1993, Cavailer, C. "Measurement techniques in detonics" *Proc. SPIE* 1801 852-867
- 1993, Celliers, P. and Ng, A. "Optical probing of hot expanded states produced by shock release" *Phys. Rev. E* 47 3547-3565
- 1993, Chen, C.-Y., Shiuan, J.-H. and Lan, I.-F. "Design of an inert material plane wave generator" *Propell. Explos. Pyrotech.* 18 139-145
- 1993, Chen, L., Chen, H., Si, Z., Tan, S. and Chui, G. "Effect of an elastic-plastic shock wave. A: On the fatigue strength of welded joints" *Fatigue Fract. Engng Mater. Struct.* 16 289-295
- 1993, Chen, L., Chen, H., Si, Z., Tan, S. and Chui, G. "Effect of an elastic-plastic shock wave. B: On the fatigue crack growth rate of welded joints" *Fatigue Fract. Engng Mater. Struct.* 16 297-302
- 1993, Chen, H., Chen, L. and Si, Z. "Reduction of da/dN at different shock wave affected regions (in Chinese)" *Acta Metall. Sinica* 29(6) A278-A282
- 1993, Chertkov, V.Y. "Blast-induced jointing in rock" *J. Mining Sci.* 29 220-227
- 1993, Chhabildas, L.C., Hertel, E.S. and Hill, S.A. "An impact technique to accelerate flier plates to velocities over 12 km/s" *Int. J. Impact Engng* 14 121-132
- 1993, Chhabildas, L.C. and Boslough, M.B. "Experimental technique to simulate orbital debris impact on space shields at impact velocities over 10 km/s", in "Proc. First European Conference on Space Debris", ed. W. Flury, pp. 385-388, publ. Darmstadt, Germany, European Space Agency
- 1993, Chistyakov, S.A., Khalikov, S.V. and Yalovets, A.P. "Investigation of the formation of elastoplastic waves in a metal target irradiated with charged particles" *Tech. Phys.* 38 5-9
- 1993, Chizhov, V.E. "Thermodynamic properties and thermal equations of state of high-pressure ice phases" *J. Appl. Mech. Tech. Phys.* 34 253-262
- 1993, Choi, M.J., Coleman, A.J. and Saunders, J.E. "The influence of field properties and pulse amplitude on bubble dynamics in the field of a shock wave lithotripter" *Phys. Med. Biol.* 38 1561-1573
- 1993, Chugainova, A.P. "The interaction of nonlinear waves in a slightly anisotropic viscoelastic medium" *J. Appl. Math. Mech.* 57 375-381
- 1993, Chugainova, A.P. "The self-similar problem of the action of a moving load at the boundary of a nonlinear elastic weakly anisotropic half-space" *J. Appl. Math. Mech.* 57 503-510

- 1993, Cieszko, M. and Kubik, J. "Analysis of interaction of impulse-like pressure wave in a fluid with undeformable layer of porous material" Arch. Mech. 45 405-421
- 1993, Clifton, R.J. "Analysis of failure waves in glasses" Appl. Mech. Rev. 46 540-546
- 1993, Clifton, R.J. "Shear waves and phase transformations", in "Shock Induced Transitions and Phase Structures in General Media", ed. J.E. Dunn, R. Fosdick and M. Slemrod, pp. 45-60, publ. Berlin, Springer
- 1993, Coleman, A.J., Whitlock, M., Leighton, T. and Saunders, J.E. "The spatial distribution of cavitation induced acoustic emission, sonoluminescence, and cell lysis in the field of a shock wave lithotripter" Phys. Med. Biol. 38 1545-1560
- 1993, Cooper, T. "A novel method for launching flyer plates" Int. J. Impact Engng 14 181-192
- 1993, Cordier, P., Doukhan, J.C. and Peyronneau, J. "Structural transformations in quartz and berlinite at high pressure and room temperature: A TEM study" Phys. Chem. Minerals 20 176-189
- 1993, Covino, J., Finnegan, S.A., Heimdahl, O.E.R., Lindfors, A.J. and Pringle, J.K. "Overview: High speed dynamics and modelling as it applies to energetic solids" Mat. Res. Soc. Symp. Proc. 296 173-182
- 1993, Cudzilo, S., Paszula, J., Trebinski, R., Trzcinski, W. and Wlodarczyk, E. "Investigations of the detonative synthesis of bBN" J. Tech. Phys. 34 345-359
- 1993, Cui, J., Fan, B. and He, Y. "Precursor ionization ahead of strong shock waves in argon" Acta Mech. Sinica 9 354-362
- 1993, Cutting, J.L., Lee, R.S. and Von Holle, W.G., "Insensitive fuze train for high explosives", United States, patent no. 5,275,106
- 1993, Dahlburg, J.P., Gardner, J.H., Doolen, G.D. and Haan, S.W. "The effect of shape in the three-dimensional ablative Rayleigh-Taylor instability. 1: Single-mode perturbation" Phys. Fluids B 5 571-584
- 1993, Dan, K., Kunishige, H., Tamura, H., Sawaoka, A.B., Akashi, T. and Kudo, H. "A new technique for material synthesis by utilizing shock wave interaction and its application to the synthesis of B-C-N system (in Japanese)" J. Ceram. Soc. Jpn 101 1137-1144
- 1993, Dandekar, D.P. and Benfanti, D.C. "Strength of titanium diboride under shock wave loading" J. Appl. Phys. 73 673-679
- 1993, Date, H., Sato, Y. and Naka, M. "Interfacial microstructure of shock-welded aluminium-steel joint" J. Mater. Sci. Letts 12 626-628
- 1993, Derrida, B., Janowsky, S.A., Lebowitz, J.L. and Speer, E.R. "Microscopic shock profiles: Exact solution of a non-equilibrium system" Europhys. Letts 22 651-656
- 1993, Devaux, D., Fabbro, R., Tollier, L. and Bartnicki, E. "Generation of shock waves by laser-induced plasma in confined geometry" J. Appl. Phys. 74 2268-2273

- 1993, Dick, J.J. "Orientation-dependent explosion sensitivity of solid nitromethane" J. Phys. Chem. 97 6193-6196
- 1993, Dlott, D.D. "Ultrafast microscopy and ultrafast calorimetry studies of laser polymer ablation" Proc. SPIE 1801 870-879
- 1993, Dolgoborodov, A.Y. and Voskoboinikov, I.M. "Sound velocities in shock-compressed corundum, boron carbide, and silicon carbide" Tech. Phys. 38 158-???
- 1993, Doukas, A.G., McAuliffe, D.J. and Flotte, T.J. "Biological effects of laser-induced shock waves: Structural and functional cell damage in vitro" Ultrasound Med. Biol. 19 137-146
- 1993, Dremine, A.N. and Breusov, O.N. "Dynamic synthesis of superhard materials", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 17-34, publ. Berlin, Springer Verlag
- 1993, Dremine, A.N., Pershin, S.V. and Tsaplin, D.N. "Undercompressed detonation regime in explosive-silicon mixture" Khim. Fiz. 12 1281-1287
- 1993, Dubovik, A.V. "Quasistatic and wave descriptions of elastic body loading" J. Appl. Mech. Tech. Phys. 34 378-381
- 1993, Duffy, T.S. and Ahrens, T.J. "Thermal expansion of of mantle and core materials at very high pressure" Geophys. Res. Letts 20 1103-1106
- 1993, Dunbar, E., Thadhani, N.N. and Graham, R.A. "High pressure shock activation and mixing of nickel-aluminium powder mixtures" J. Mater. Sci. 28 2903-2914
- 1993, Dunn, J.E., Fosdick, R. and Slemrod, M., Eds. "Shock Induced Transitions and Phase Structures in General Media", publ. Berlin, Springer
- 1993, Egorov, L.A., Barenboim, A.I., Makeev, N.G., Mokhova, V.V. and Rummyantsev, V.G. "X-ray diffraction studies of the structures of dynamically compressed Be, Al, LiF, KCl and Fe+3% Si" J. Exper. Theor. Phys. 76 73-81
- 1993, Emmony, D.C., Suaidi, M.K.B., Jin, Y.H. and Ward, B. "High-resolution dynamic photoelastic study of laser-generated sound in polymer" Proc. SPIE 1801 380-391
- 1993, Engelke, R. and Sheffield, S.A. "Explosives", in "Encyclopedia of Applied Physics. vol. 6", pp. 327-357, publ. New York, VCH Publishers Inc.
- 1993, Erofeev, M.V., Kalin, A.A. and Moiseev, V.A. "Fractal dimension of the scabbing fracture of aluminum under nanosecond pulsed loading" Tech. Phys. Letts 19 300-301
- 1993, Escobar, J.C. and Clifton, R.J. "On pressure-shear plate impact for studying the kinetics of stress-induced phase transformation" Mater. Sci. Engng A 170 125-142

- 1993, Evans, N.J., Gregoire, D.C., Grieve, R.A.F., Goodfellow, W.D. and Veizer, J. "Use of platinum-group elements for impactor identification: Terrestrial impact craters and cretaceous-tertiary boundary" *Geochim. Cosmochim. Acta* 57 3737-3748
- 1993, Fadeenko, Y.I. "Bounds of the explosive weld region" *Combust. Explos. Shock Waves* 29 89-93
- 1993, Fanget, A. "Stability analysis of numerical solutions of wave propagation when pseudoviscosity is replaced by real viscosity" *J. Appl. Phys.* 74 1649-1651
- 1993, Fayer, M.D., Tokmakoff, A. and Dlott, D.D. "Shocked energetic molecular materials: Chemical reaction initiation and hot spot formation" *Mater. Res. Soc. Symp. Proc.* 296 379-384
- 1993, Fedorenko, A.G., Syrunin, M.A. and Ivanov, A.G. "Dynamic strength in explosive loading for shells made of oriented fibrous composites" *J. Appl. Mech. Tech. Phys.* 34 123-128
- 1993, Fedorov, V.M. and Gordoplov, Y.A. "Critical conditions of wave production under the explosion welding" *Khim. Fiz.* 12 1148-1150
- 1993, Fei, Y., Mao, H.K. and Hemley, R.J. "Thermal expansivity, bulk modulus, and melting curve of water-ice VII to 20 GPa" *J. Chem. Phys.* 99 5369-5373
- 1993, Fletcher, T.R. "Efficient ablation of an organic polymer by a laser driven shock wave" *J. Appl. Phys.* 73 5292-5294
- 1993, Fosdick, R., Dunn, E. and Slemrod, M., Eds. "Shock Induced Transitions and Phase Structures in General Media", publ. Berlin, Springer
- 1993, Fowles, G.R. "On the evolutionary condition for stationary plane waves in inert and reactive substances", in "Shock Induced Transitions and Phase Structures in General Media", ed. J.E. Dunn, R. Fosdick and M. Slemrod, pp. 93-110, publ. Berlin, Springer
- 1993, Frank, A.M. "Microphotography of shocks in crystals" *Proc. SPIE* 1801 119-128
- 1993, Furnish, M.D. "Recent advances in methods for measuring the dynamic response of geological materials to 100 GPa" *Int. J. Impact Engng* 14 267-278
- 1993, Furnish, M.D. "Measuring the dynamic compression and release behavior of rocks and grouts associated with HYDROPLUS", SAND92-0984, Albuquerque, NM, Sandia National Laboratory
- 1993, George, M.J. "Special topics in test methodology: Electrical pin contactors", in "Tactical Missile Warheads", ed. J. Carleone, pp. 699-702, publ. Washington DC, American Institute of Aeronautics and Astronautics
- 1993, Gerdyukov, N.N., loilev, A.G. and Novikov, S.A. "Propagation of a spherical shock wave in sandy soil" *J. Appl. Mech. Tech. Phys.* 34 161-162
- 1993, Gerdyukov, N.N., loilev, A.G., Kovtun, A.D. and Makerov, Y.M. "An investigation of the compressibility of sandy soil under impact-wave loading" *J. Appl. Mech. Tech. Phys.* 34 500-503

- 1993, Gilath, I., Eliezer, S., Bar-Noy, T., Englman, R. and Jaeger, Z. "Material response at hypervelocity impact conditions using laser induced shock waves" *Int. J. Impact Engng* 14 279-290
- 1993, Gilman, J.J. "Metallization and insulization during impact" *Int. J. Impact Engng* 14 291-302
- 1993, Glancy, B.C., Sandusky, H.W. and Krall, A.D. "Microwave interferometry of shock waves. 2. Reacting porous media" *J. Appl. Phys.* 74 6328-6334
- 1993, Glass, B.P. and Wu, J.Q. "Coesite and shocked quartz discovered in the Australasian and North American microtektite layers" *Geology* 21 435-438
- 1993, Glimm, J.G., Plohr, B.J. and Sharp, D.H. "Conservative formulation of large deformation plasticity" *Appl. Mech. Rev.* 46 519-526
- 1993, Golberg, S.M. and Velikovich, A.L. "Suppression of Rayleigh-Taylor instability by the snowplow mechanism" *Phys. Fluids B* 5 1164-1172
- 1993, Gordoplov, Y. and Merzhanov, A. "A new processing for the self-propagating high-temperatures synthesis (SHS) combined with shock compression technique", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 177-194, publ. Berlin, Springer Verlag
- 1993, Gordoplov, Y. and Merzhanov, A. "Shock waves in self-propagating high-temperature synthesis research" *Prog. Astronaut. Aeronaut.* 154 539-559
- 1993, Gorelskii, V.A. and Zelepugin, S.A. "Modeling of titanium carbide synthesis under the axisymmetrical high velocity shock" *Khim. Fiz.* 12 1141-1147
- 1993, Gracewski, S.M., Dahake, G., Ding, Z., Burns, S.J. and Everbach, E.C. "Internal stress wave measurements in solids subjected to lithotripter pulses" *J. Acoust. Soc. Amer.* 94 652-661
- 1993, Grady, D.E. and Kipp, M.E. "Dynamic fracture and fragmentation", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 265-322, publ. New York, Springer-Verlag
- 1993, Grady, D.E. and Wise, J.L. "Dynamic properties of ceramic materials", SAND93-0610, Albuquerque, New Mexico, Sandia National Laboratories
- 1993, Grady, D.E. and Kipp, M.E. "Shock compression properties of silicon carbide", SAND92-1832, Albuquerque, New Mexico, Sandia National Lab.
- 1993, Grady, D.E. and Crawford, D.A. "Dynamic properties of armor and warhead materials MOU FY93 Annual Report", Tech. Memorandum TMDG0593, Albuquerque, NM, Sandia National Laboratory, Experimental Impact Physics Department
- 1993, Grady, D.E. "Impact compression properties of concrete", in "Proc. 6th Int. Symp. on the Interaction of Non-Nuclear Munitions with Protective Structures", pp. 172-175, publ. Tyndall, FL, Applied Research Associates Inc.

- 1993, Graham, R.A. "Introduction to high-pressure shock compression of solids", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 1-6, publ. New York, Springer-Verlag
- 1993, Graham, R.A. and Thadhani, N.N. "Solid state reactivity of shock-processed solids", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 35-65, publ. Berlin, Springer Verlag
- 1993, Graham, R.A. "Solids under High-Pressure Shock Compression", publ. Berlin, Springer-Verlag
- 1993, Graham, R.A., Anderson, M.U., Horie, Y., You, S.-K. and Holman, G.T. "Pressure measurements in chemically reacting powder mixtures with the Bauer piezoelectric polymer gauge" Shock Waves 3 79-82
- 1993, Graham, K.J., Spear, G.B., Lynch, D.J. and Pizzo, J.T. "Threat hazard assessment: Shock and impact modeling", in "Proc. 1993 JANNAF Propulsion Meeting. Vol. 1", ed. D.S. Eggleston, pp. 215-235, publ. Columbia, Maryland, Chemical Propulsion Information Agency
- 1993, Graham, R.A., Morosin, B. and Dodson, B. "The chemistry of shock compression: A bibliography", SAND83-1887, Sandia National Laboratory
- 1993, Gratz, A.J., Deloach, L.D., Clough, T.M. and Nellis, W.J. "Shock amorphization of cristobalite" Science 259 663-666
- 1993, Gray III, G.T. "Influence of shock-wave deformation on the structure/property behavior of materials", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 187-216, publ. New York, Springer-Verlag
- 1993, Grishin, A.M., Parashin, A.D. and Yakimov, A.S. "Thermomechanical destruction of a carbon-epoxy composite under multiple pulse loading" Combust. Explos. Shock Waves 29 82-89
- 1993, Grishkin, A.M., Davydov, V.Y. and Kozmerchuk, V.V. "Extrusion and dispersion of metals under the action of short-time dynamic pressures" Combust. Explos. Shock Waves 29 768-771
- 1993, Gu, Y., Wang, Y., Fu, S., Wu, J., Yu, S., Wan, B., Zhou, G., Wang, X., Han, G. and Zeng, Y. "Hugoniot measurements on copper to 0.8 TPa by laser-driven shock waves" Laser Particle Beams 11 611-616
- 1993, Gubarevich, T.M., Kulagina, Y.V., Poleva, L.I., Pyaterikov, V.F. and Dolmatov, V.Y. "Mellitic acid from condensed diamond containing carbon of explosive origin" Russ. J. Appl. Chem. 66 1464-1465
- 1993, Gundersen, R.M. "Nonlinear wave interactions" Int. J. Non-Linear Mech. 28 613-622
- 1993, Gupta, V., Yuan, J. and Pronin, A. "Nanosecond rise-time laser-produced stress pulses with no asymptotic decay" Rev. Sci. Instrum. 64 1611-1613

- 1993, Gupta, V. and Yuan, J. "Measurement of interface strength by the modified laser spallation technique. 2: Applications to metal/ceramic interfaces" J. Appl. Phys. 74 2397-2405
- 1993, Gupta, V., Yuan, J. and Pronin, A. "Nanosecond risetime stress pulses using lasers for applications to material characterization", in "Experimental Techniques in the Dynamics of Deformable Solids (AMD 165)", ed. K.T. Ramesh, pp. 61-70, publ. New York, American Society of Mechanical Engineers
- 1993, Gupta, Y.M. "Use of piezoresistance gauges to quantify the stress state in a shocked solid", in "Experimental Techniques in the Dynamics of Deformable Solids (AMD 165)", ed. K.T. Ramesh, pp. 89-101, publ. New York, American Society of Mechanical Engineers
- 1993, Gusev, V.E. "Estimate of parameters for shock waves excited by femtosecond laser pulses" Bull. Russ. Acad. Sci.: Physics/Supplement 57 1-10
- 1993, Gutkin, M.Y., Ovidko, L.A. and Meshcheryakov, Y.I. "Mechanisms of rotational effect in shock-loaded crystalline metallic materials" J. Phys. III France 3 1563-1579
- 1993, Haddow, J.B. "Nonlinear hyperbolic waves in hyperelastic solids" Appl. Mech. Rev. 46 527-539
- 1993, Hammel, B.A., Griswold, D., Landen, O.L., Perry, T.S., Remington, B.A., Miller, P.L., Peyser, T.A. and Kilkenny, J.D. "X-ray radiographic measurements of radiation-driven shock and interface motion in solid density material" Phys. Fluids B 5 2259-2264
- 1993, Han, Z. and Yin, X. "Shock Dynamics", publ. New York, Springer
- 1993, Hemsing, W.F. "Special topics in test methodology: VISAR interferometry", in "Tactical Missile Warheads", ed. J. Carleone, pp. 715-718, publ. Washington DC, American Institute of Aeronautics and Astronautics
- 1993, Henis, Z. and Eliezer, S. "Melting phenomenon in laser-induced shock waves" Phys. Rev. E 48 2094-2097
- 1993, Hernandez-Gomez, L.H. and Ruiz, C. "Assessment of data for dynamic crack initiation under shock pressure loading. 1: Experiment" Theor. Appl. Fract. Mech. 19 75-83
- 1993, Hernandez-Gomez, L.H. and Ruiz, C. "Assessment of data for dynamic crack initiation under shock pressure loading. 2: Analysis" Theor. Appl. Fract. Mech. 19 85-94
- 1993, Herrmann, W. "Inelastic constitutive equations", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 115-186, publ. New York, Springer-Verlag
- 1993, Hirai, H., Kondo, K. and Ohwada, T. "Quenching a transition of C₆₀ fullerene to diamond under shock compression" Carbon 31 1095-1098

- 1993, Hokamoto, K., Izuma, T. and Fujita, M. "New explosive welding technique to weld aluminum alloy and stainless steel plates using a stainless steel intermediate plate" *Metall. Trans. A* 24 2289-2297
- 1993, Holmes, N.C. "Dual-beam, double-pass absorption spectroscopy of shocked materials" *Rev. Sci. Instrum.* 64 357-362
- 1993, Hong, D.C. "Dynamic model for granular assembly" *Int. J. Mod. Phys. B* 7 1929-1947
- 1993, Horie, Y. "Shock-induced chemical reactions in inorganic powder mixtures", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 67-100, publ. Berlin, Springer Verlag
- 1993, Horie, Y. and Sawaoka, A.B. "Shock Compression Chemistry of Materials", publ. Tokyo, KTK Scientific
- 1993, Huang, J.C., Lo, Y.-S. and Gray III, G.T. "The response of metal-matrix composites subjected to quasi-static and shock-wave deformation" *Mater. Chem. Phys.* 35 71-85
- 1993, Huffman, A.R., Brown, J.M., Carter, N.L. and Reimold, W.U. "The microstructural response of quartz and feldspar under shock loading at variable temperatures" *J. Geophys. Res.* 98 22171-22197
- 1993, Hugenschmidt, M. "High-speed diagnostic techniques used for studies of pulsed IR-laser radiation-induced target effects" *Proc. SPIE* 1801 756-767
- 1993, Inose, N. and Ide, M. "Electrical and chemical damage of piezoelectric polymers caused by high acoustic pressure" *J. Acoust. Soc. Jpn.* 14 117-118
- 1993, Inose, N. and Ide, M. "Variation of pressure waveforms in measurements of extracorporeal shock-wave lithotripter" *Jpn J. Appl. Phys.* 32 2487-2489
- 1993, Inose, N. and Ide, M. "Measurements of pressure of extracorporeal shock-wave lithotripter using pressure-sensitive papers" *Jpn J. Appl. Phys.* 32 2505-2506
- 1993, Inoue, Y. and Yano, T. "Propagation of strongly nonlinear plane waves" *J. Acoust. Soc. Amer.* 94 1632-1642
- 1993, Ivanov, M.F. and Parshikov, A.N. "Numerical modeling of shock wave dynamics in a composite" *High Temp.* 31 112-118
- 1993, Jaanimagi, P.A. and Bradley, D.K. "Neutron streak and framing camera diagnostics for ICF implosions" *Proc. SPIE* 1801 710-717
- 1993, Jarboe, T.R. "Confinement and acceleration of pellet materials by one-sided laser irradiation" *Phys. Fluids B* 5 1332-1335
- 1993, Johnson, J.B., Solie, D.J., Brown, J.A. and Gaffney, E.S. "Shock response of snow" *J. Appl. Phys.* 73 4852-4861
- 1993, Johnson, J.N. "Micromechanical considerations in shock compression of solids", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 217-264, publ. New York, Springer-Verlag

- 1993, Johnson, J.N. "Elastic moduli as determined by shock-release experiments" J. Phys. Chem. Solids 54 691-699
- 1993, Kanel, G.I., Razorenov, S.V., Utkin, A.V., Fortov, V.E., Baumung, K., Karow, H.U., Rusch, D. and Licht, V. "Spall strength of molybdenum single crystals" J. Appl. Phys. 74 7162-7165
- 1993, Kanel, G.I., Tolstikova, Z.G. and Utkin, A.V. "Effect of filler particle size on the cleavage strength of elastomers" J. Appl. Mech. Tech. Phys. 34 399-402
- 1993, Karpp, R.R. "Special topics in test methodology: Piezoelectric gauges", in "Tactical Missile Warheads", ed. J. Carleone, pp. 703-707, publ. Washington DC, American Institute of Aeronautics and Astronautics
- 1993, Karpushin, Y.V., Leontev, A.A., Mintsev, V.B., Ushnurtsev, A.E. and Fortov, V.E. "Experiments on the operation of compact explosive magnetic generators with magnetic-flux trapping" High Temp. 31 809-816
- 1993, Katsanabis, P.D. and Yeung, C. "Effects of low amplitude shock waves on commercial explosives: The sympathetic detonation problem", in "Rock Fragmentation by Blasting", ed. H.-P. Rossmannith, pp. 401-408, publ. Rotterdam, The Netherlands, A.A. Balkema
- 1993, Kawashima, K., Yuasa, I., Ito, T., Watanabe, M. and Fujii, I. "Spall damage of alumina/aluminum composites", in "Proc. 9th Int. Conf. on Composite Materials", ed. A. Miravete, pp. 234-239, publ. Cambridge, UK, Woddhead Publishing Ltd.
- 1993, Kecskes, L.J. and Hall, I.W. "Hot explosive consolidation of W-Ti alloys", in "Tungsten and Tungsten Alloys 1992", ed. A. Bose and R.J. Dowding, pp. 155-165, publ. Princeton, New Jersey, Metal Powder Industries Federation
- 1993, Kedrinskii, V.K. "Nonlinear problems of cavitation breakdown of liquids under explosive loading" J. Appl. Mech. Tech. Phys. 34 361-377
- 1993, Kikuchi, M., Syono, Y. and Velde, B. "Shock-wave effects on kaolinite and other clays" Amer. Mineralogist 78 904-910
- 1993, Kim, M.G., Jung, S.S. and Kim, Y.T. "Shock wave detection by light deflection technique" Proc. SPIE 1801 392-399
- 1993, Kingma, K.J., Meade, C., Hemley, R.J., Mao, H.K. and Veblen, D.R. "Microstructural observations of alpha-quartz amorphization" Science 259 666-669
- 1993, Knittle, E. and Williams, Q. "High-pressure Raman spectroscopy of ZrSiO₄: Observations of the zircon to schellite transition at 300K" Amer. Mineralogist 78 245-252
- 1993, Kodama, T., Tomita, Y. and A.Shima "Interaction of a bubble attached to a gelatin wall with a shock wave (in Japanese)" Trans. Jpn. Soc. Mech. Engng 59 1431-1435

- 1993, Koeberl, C. "Chicxulub Crater, Yucatan: Tektites, impact glasses, and the geochemistry of target rocks and breccias" *Geology* 21 211-214
- 1993, Kondo, K., Sawai, S., Akaishi, M. and Yamaoka, S. "Deformation behaviour of shock-synthesized diamond powder under high pressures and high temperatures" *J. Mater. Sci. Letts* 12 1383-1385
- 1993, Korotaeva, V.L., Rudchenko, V.V. and Demidenko, V.S. "Role of packing defect energy in the localization of plastic strain during shock-wave loading of copper-based solid solutions" *Russ. Phys. J.* 36 125-128
- 1993, Korth, G.E. and Williamson, R.L. "Consolidation of metastable tungsten powders or wires", in "Tungsten and Tungsten Alloys 1992", ed. A. Bose and R.J. Dowding, pp. 167-174, publ. Princeton, New Jersey, Metal Powder Industries Federation
- 1993, Kosinski, S. and Duszczyk, B. "Reflection of oblique shock waves in Murnaghan material" *Arch. Mech.* 45 739-766
- 1993, Kostek, S., Sinha, B.K. and Norris, A.N. "Third-order elastic constants for an inviscid fluid" *J. Acoust. Soc. Amer.* 94 3014-3017
- 1993, Kovalchenko, M.S. "The dynamics of mechanical actions on materials. 2: Auto-oscillations under the action of an impact" *Powder Metall. Metal Ceramics* 32 662-668
- 1993, Kovtun, V.I., Trefilov, V.I., Karpets, M.V. and Chugunova, S.I. "Formation of new compounds in shock wave sintering of sphaleritic boron nitride with Al_2O_3 and ZrO_2 " *Powder Metall. Metal Ceramics* 32 544-549
- 1993, Kovtun, V.I., Petrenko, A.V., Zaulichnyi, Y.V., Trefilov, V.I., Britun, V.F., Karpets, M.V. and Zhurakovskii, E.A. "Valence-band electron structure in polycrystalline cubic boron nitride sintered in shock waves" *Powder Metall. Metal Ceramics* 32 645-650
- 1993, Kozeruk, N.P., Danilenko, V.V., Litvinov, B.V., Lysenko, P.P., Sanin, I.V., Samylov, S.V., Tarzhanov, V.I. and Telichko, I.V. "Multichannel optical fiber system to measure time intervals in investigations of explosive phenomena" *Proc. SPIE* 1801 981-988
- 1993, Kozlov, E.A., Lebedev, M.A. and Litvinov, B.V. "Explosive devices for dynamic material compaction and synthesis" *Combust. Explos. Shock Waves* 29 242-245
- 1993, Krall, A.D., Glancy, B.C. and Sandusky, H.W. "Microwave interferometry of shock waves. I. Unreacting porous media" *J. Appl. Phys.* 74 6322-6327
- 1993, Krogh, T.E., Kamo, S.L. and Bohor, B.F. "Fingerprinting the K/T impact site and determining the time of impact by U/Pb dating of single shocked zircons from distal ejecta" *Earth Planet. Sci. Letts* 119 425-429
- 1993, Kulikovskii, A.G. and Sveshnikova, Y.I. "Riemann waves in an elastic medium with small anisotropy" *J. Appl. Math. Mech.* 57 493-502

- 1993, Kulkov, S.N., Nesterenko, V.F., Bondar, M.P., Simonov, V.A., Melnikov, A.G. and Korolev, P.V. "Explosion activation of quench-hardened ZrO_2 - Y_2O_3 ceramic submicron powders" *Combust. Explos. Shock Waves* 29 728-733
- 1993, Kumar, M. and Upadhyay, S.P. "Pressure dependence of thermal expansivity for alkali halides" *J. Phys. Chem. Solids* 54 773-776
- 1993, Kutushev, A.G. and Rudakov, D.A. "Numerical study of the action of a shock wave on an obstacle screened by a layer of porous powder material" *J. Appl. Mech. Tech. Phys.* 34 618-624
- 1993, Lan, I.-F., Hung, S.-C., Chen, C.-Y., Niu, Y.-M. and Shiuan, J.-H. "An improved simple method of deducing JWL parameters from cylinder expansion test" *Propell. Explos. Pyrotech.* 18 18-24
- 1993, Langner, G.C. "Special topics in test methodology: Manganin gauges", in "Tactical Missile Warheads", ed. J. Carleone, pp. 713-714, publ. Washington DC, American Institute of Aeronautics and Astronautics
- 1993, Lawrence, R.J. and Trott, W.M. "Theoretical analysis of a pulsed-laser-driven hypervelocity flyer launcher" *Int. J. Impact Engng* 14 439-449
- 1993, Lee, R., Osher, J., Chau, H., Gerassimenko, M., Pomykal, G. and Speer, R. "The impact of flat, thin plates on aluminum targets in the 5-10 km/s velocity range" *Int. J. Impact Engng* 14 451-466
- 1993, Legowski, Z. and Wlodarczyk, E. "Interaction between an isentropic shock wave and the boundary of a free flux as treated on the grounds of one-dimensional gas dynamics" *J. Tech. Phys.* 34 371-389
- 1993, Levy, A., Ben-Dor, G., Skews, B. and Sorek, S. "Head-on collision of normal shock waves with rigid porous materials" *Exper. Fluids* 15 183-190
- 1993, Levy, A., Ben-Dor, G., Skews, B. and Bear, J. "Jump conditions across strong compaction waves in gas saturated rigid porous media" *Shock Waves* 3 105-111
- 1993, Lezaud, J.-M. and Chaissé, F. "Etude au canon à gaz léger à deux étages des propriétés sous choc de l'alliage de fer Z2 CN18-10 et de l'alliage d'uranium UCr_5Ti_4 " *J. Phys. III France* 3 207-222
- 1993, Li, W., Niou, C.S. and Murr, L.E. "Transport critical current densities in shock-loaded and thermally processes $YBa_2Cu_3O_7$ " *J. Mater. Sci. Letts* 12 170-172
- 1993, Li, Z.-R. and Huang, S. "Optical measurement of the shear-wave particle velocity in shock-loaded materials" *Proc. SPIE* 1801 1049-1052
- 1993, Lin, W.Z. and Liu, G.K. "Infrared studies on shock-loading Jilin meteorite" *Science China B* 36 610-615
- 1993, Lisin, V.A., Shapochkin, V.A. and Shapochkina, E.V. "Plastic deformation and fracture of laminated materials in shock loading" *Phys. Chem. Mater. Treat.* 27 633-636

- 1993, Liu, Q. and Katsabanis, P.D. "A theoretical approach to the stress waves around a borehole and their effect on rock crushing", in "Rock Fragmentation by Blasting", ed. H.-P. Rossmanith, pp. 9-16, publ. Rotterdam, The Netherlands, A.A. Balkema
- 1993, Liu, T.-P. "Nonlinear stability and instability of overcompressive shock waves", in "Shock Induced Transitions and Phase Structures in General Media", ed. J.E. Dunn, R. Fosdick and M. Slemrod, pp. 159-167, publ. Berlin, Springer
- 1993, Lugovoi, P.Z. and Mukoid, V.P. "Dynamics of a spherical shell with a cylindrical pipe with detonation loading" *Int. Appl. Mech.* 29 28-34
- 1993, Lyons, J.B., Officer, C.B., Borella, P.E. and Lahodynky, R. "Planar lamellar substructures in quartz" *Earth Planet. Sci. Letts* 119 431-440
- 1993, Macheret, S.O. and Rich, J.W. "Nonequilibrium dissociation rates behind strong shock waves: Classical model" *Chem. Phys.* 174 25-43
- 1993, Mali, V.I. and Solovov, A.V. "Detonation-wave profile in the explosive compression of cylindrical ampules" *Combust. Explos. Shock Waves* 29 634-637
- 1993, Mandell, D.A. and Henninger, R. "Ceramics models in the MESA codes" *Int. J. Impact Engng* 14 491-502
- 1993, Marka, J.C. "Explosive properties of reactor-grade plutonium" *Science Global Security* 4 111-128
- 1993, Marques, M.D.P.M. "Differential Inclusions in Nonsmooth Mechanical Problems: Shocks and Dry Friction", publ. Basel, Birkhauser
- 1993, Martin, J.W., Fredrich, J.T., Felice, C.W. and Green, S.J. "Mechanical properties and microstructure of shock-conditioned tuff" *Int. J. Rock. Mech. Min. Sci. & Geomech. Abstr.* 30 669-675
- 1993, Martinez, I., Schäerer, U. and Guyot, F. "Impact-induced phase transformations at 50-60 GPa in continental crust: An EPMA and a TEM study" *Earth Planet Sci. Letts* 119 286-290
- 1993, Mashimo, T. "Shock compression studies on ceramic materials", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 113-144, publ. Berlin, Springer-Verlag
- 1993, Mashimo, T., Nakamura, A. and Hamada, S. "A compact high speed streak camera for impact shock study of solids" *Proc. SPIE* 1801 170-175
- 1993, Mashimo, T., Tashiro, S., Toya, T., Nishida, M., Yamazaki, H., Yamaya, S., Oh-Ishi, K. and Syono, Y. "Synthesis of the B1-type tantalum nitride by shock compression" *J. Mater. Sci.* 28 3439-3443
- 1993, Masse, J.-E. and Barreau, G. "Contraintes résiduelles induites dans un acier par choc laser" *C.R. Acad. Sci. Paris II* 317 1015-1018
- 1993, Mazor, G., Ben-Dor, G., Igra, O. and Sorek, S. "Shock wave interaction with cellular materials. Part I: Analytical investigation and governing equations" *Shock Waves* 3 159-165

- 1993, McCarthy, M.F., Moodie, T.B., Oncu, T.S. and Sawatzky, R.P. "Propagation and reflection of one dimensional waves in ferroelectric ceramics" *Quart. Appl. Math.* 51 217-240
- 1993, McGaughey, D., Popma, H., Ferraro, J., Crepeau, C. and Bischer, G. "Design, development, and testing of a lightweight, composite sabot for the D-2 program" *IEEE Trans. Magnetics* 29 1190-1195
- 1993, McGlaun, J.M. and Yarrington, P. "Large deformation wave codes", in "High-Pressure Shock Compression of Solids", ed. J.R. Asay and M. Shahinpoor, pp. 323-354, publ. New York, Springer-Verlag
- 1993, Mendes, R., Campos, J., Gois, J.C. and Moutinho, C. "Shock initiation and detonation stability of industrial explosives", in "Proc. 24th Int. Ann. Conf. of Institut für Chemische Technologie", paper 29, publ. Karlsruhe, Germany, Institut für Chemische Technologie
- 1993, Merzhievskii, L.A. and Nizhikov, O.A. "Dynamic compression of a model unidirectional composite" *Combust. Explos. Shock Waves* 29 625-629
- 1993, Merzhievskii, L.A., Resnyanskii, A.D. and Romenskii, E.I. "Modelling of shock-wave processes in unidirectional composites" *Combust. Explos. Shock Waves* 29 620-624
- 1993, Meshcheryakov, Y.I., Kashchenko, M.P., Vasilov, V.B. and Atroshenko, S.A. "Ultrasonic propagation of the front of a martensitic transformation induced by a shock wave" *Tech. Phys. Letts* 19 68-69
- 1993, Meshcheryakov, Y.I. and Savenko, G.G. "Fracture toughness of materials under dynamic loading" *J. Appl. Mech. Tech. Phys.* 34 419-423
- 1993, Meyers, M.A., Shang, S.S. and Hokamoto, K. "The role of thermal energy in shock consolidation", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 145-176, publ. Berlin, Springer Verlag
- 1993, Miura, Y. and Graham, R.A. "Shock metamorphism on the surface of the Moon" *Shock Waves* 3 293-298
- 1993, Mondot, M. "Température des matériaux soumis à une onde de choc", PhD thesis, Univ. of C.N.A.M., Paris
- 1993, Morfey, C.L. and Sparrow, V.W. "Plane compression front steepening in nonlinear media forms both a shock and a reflected wave" *J. Acoust. Soc. Amer.* 93 3085-3088
- 1993, Morgan, J.A. "Special topics in test methodology: Piezoconductive gauges", in "Tactical Missile Warheads", ed. J. Carleone, pp. 709-712, publ. Washington DC, American Institute of Aeronautics and Astronautics
- 1993, Morgan, J.A. "Special topics in test methodology: Axially symmetric magnetic probe", in "Tactical Missile Warheads", ed. J. Carleone, pp. 725-730, publ. Washington DC, American Institute of Aeronautics and Astronautics

- 1993, Mori, Y. and Nagayama, K. "Observation of shock wave convergence or collision induced by shaping of a plane shock front in solids" Proc. SPIE 1801 357-361
- 1993, Mozgovoi, A.V., Rassokha, A.A. and Chainikov, A.I. "Finite element study of phase frequency characteristics of the response of composite laminates to shock loading" Mech. Compos. Mater. 29 495-502
- 1993, Murakoshi, Y., Boey, F. and Sano, T. "Aluminum-lithium alloy composites using a dynamic shock compaction technique" J. Mater. Process. Technol. 38 351-360
- 1993, Musatov, A.G. and Sapozhnikov, O.A. "Nonlinear effects in process of focusing of acoustic pulses with shock front" Acoust. Phys. 39 266-269
- 1993, Mutz, A.H. and Vreeland Jr., T. "Thermoelectric measurements of energy deposition during shock-wave consolidation of metal powders of several sizes" J. Appl. Phys. 73 4862-4868
- 1993, Muzyrya, A. "Optical level method in spall investigations" Proc. SPIE 1801 695-702
- 1993, Myasnikov, V.V., Monasevich, L.A., Domrachev, V.E. and Paskal, Y.I. "Initiation of martensitic transformation and shape memory by pulsed electron beams" Russ. Phys. J. 36 476-479
- 1993, Nagayama, K. "Shock wave interaction in solid materials", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 195-224, publ. Berlin, Springer Verlag
- 1993, Nagayama, K. and Mori, Y. "Compact streak camera for the shock study of solids by using the high-pressure gas gun" Proc. SPIE 1801 154-159
- 1993, Nagy, G., Murakami, H. and Hegemier, G.A. "Experimental and analytical study of the dynamic response of low-porosity brittle rocks" J. Geophys. Res. B 98 22081-22094
- 1993, Nakamura, A. and Mashimo, T. "Calibration experiments of a thin manganin gauge for shock-wave measurements in solids: Measurements of shock stress history in alumina" Jpn. J. Appl. Phys. 32 4785-4790
- 1993, Nellis, W.J. and Gratz, A.J. "Recovery of materials impacted at high velocity" Int. J. Impact Engng 14 531-540
- 1993, Nesterenko, V.F. and Patuelli, C. "X-ray line broadening analysis of explosively consolidated Y-Ba-Cu-O powders" Nuovo Cimento D 15 835-842
- 1993, Neyer, B.T. "VISAR error analysis and enhancement" Proc. SPIE 2002 107-115
- 1993, Nicollet, M., Belmas, R., Plotard, J.P., Udiment, D. and Leroy, M. "Amorçage par chocs simples et doubles d'une composition mixte TATB-octogène" Propell. Explos. Pyrotech. 18 128-131
- 1993, Nikitin, Y.B. and Sudenkov, Y.V. "Multiple quasiperiodic scabbing of NaCl under pulsating and alternating submicrosecond shock loading" Tech. Phys. Letts 19 381-382

- 1993, Nishida, M., Chiba, A., Ando, S., Imamura, K. and Minato, H. "Microstructural modifications in an explosively welded Ti/Ti clad material. 1: Bonding interface" Metall. Trans. A 24 735-742
- 1993, Nishida, M., Chiba, A., Ando, S., Imamura, K. and Minato, H. "Microstructural modifications in an explosively welded Ti/Ti clad material. 2: Deformation structures around bonding interface" Metall. Trans. A 24 743-750
- 1993, Nouri, A. and Chossat, P. "Shock waves of small amplitude in elastoplastic solids" Eur. J. Mech. A/Solids 12 95-124
- 1993, Novikov, N.I., Maistrenko, A.L., Trefilov, V.I. and Kovtun, V.I. "Properties of VK6-diamond composites sintered in shock waves" Powder Metall. Metal Ceramics 32 377-379
- 1993, O'Donnell, R.G. "Parameters describing the cylindrical explosive consolidation technique" Propell. Explos. Pyrotech. 18 230-236
- 1993, Ogorodnikov, V.A., Ivanov, A.G., Luchinin, V.I., Khokhlov, A.A. and Tsoi, A.P. "Scale effect in high rate (spall) failure" Combust. Explos. Shock Waves 29 750-754
- 1993, Ojha, S.N. and Tiwari, M.S. "Shock wave propagation in non-ideal fluids" Earth Moon Planets 62 273-287
- 1993, Okitsu, T., Suzuki, J., Aoki, K., Hara, K. and Yoshida, T. "Shock sensitivity tests for commercial explosives and low-sensitive explosive materials", in "Proc. Ninth Symp. on Chemical Problems Connected with the Stability of Explosives", ed. J. Hansson, pp. 107-117, publ. Sundyberg, Sweden, Swedish National Committee for Mechanics
- 1993, Ostoja-Starzewski, M. "On the critical amplitudes of acceleration wave to shock wave transition in white-noise random-media" J. Appl. Math. Phys. 44 865-879
- 1993, Ostriuk, A.V. and Petrovskii, V.P. "Spalling failure in a polymer cylinder on unsymmetrical pulse loading" J. Appl. Mech. Tech. Phys. 34 128-132
- 1993, Oswald, C.J., Marchand, K.A. and Thacker, B.H. "A numerical simulation of stress wave propagation in concrete and its effect on spall and breach in scaled tests", in "Proc. 6th Int. Symp. on the Interaction of Non-Nuclear Munitions with Protective Structures", pp. 205-210, publ. Tyndall, FL, Applied Research Associates Inc.
- 1993, Paisley, M.J., Horie, Y., Davis, R.F., Dan, K., Tamura, H. and Sawaoka, A.B. "Novel phases in shock-compacted mixtures of diamond and boron nitride" J. Mater. Sci. Letts 12 1768-1770
- 1993, Paisley, D.L. and Stahl, D.B. "Subnanosecond optical diagnostics of laser-material interaction and dynamic microstructure of materials" Proc. SPIE 1801 880-888

- 1993, Pence, T.J. "The dissipation topography associated with solutions to a Riemann problem involving elastic materials undergoing phase transitions", in "Shock Induced Transitions and Phase Structures in General Media", ed. J.E. Dunn, R. Fosdick and M. Slemrod, pp. 169-183, publ. Berlin, Springer
- 1993, Perrin, G. and Delannoy-Coutris, M. "Generalized Anderson-Grüneisen parameters for non-cubic solids" *J. Phys. Chem. Solids* 54 845-850
- 1993, Perrot, F. and Dharma-wardana, M.W.C. "Photoabsorption K edge of shock compressed aluminum" *Phys. Rev. Letts* 71 797-800
- 1993, Philipp, A., Delius, M., Scheffczyk, C., Vogel, A. and Lauterborn, W. "Interaction of lithotripter-generated shock waves with air bubbles" *J. Acoust. Soc. Amer.* 93 2496-2509
- 1993, Philippe, L.C. and Hanson, R.K. "Laser-diode wavelength-modulation spectroscopy for simultaneous measurement of temperature, pressure, and velocity in shock-heated oxygen flows" *Appl. Opt.* 32 6090-6103
- 1993, Phillips, L., Sinkovits, R.S., Oran, E.S. and Boris, J.P. "The interaction of shocks and defects in Lennard-Jones crystals" *J. Phys.: Condens. Matter* 5 6357-6376
- 1993, Phillips, L. "Molecular dynamics simulations of shocks and detonations in a model 3D energetic crystal with defects" *Mater. Res. Soc. Symp. Proc.* 296 155-160
- 1993, Pipkin, A.C. "Shock formation in nearly elastic materials" *Quart. J. Mech. Appl. Math.* 46 583-599
- 1993, Piriz, A.R. and Atzeni, S. "Implosion of reactor-size, gas-filled spherical shell targets driven by shaped pressure pulses" *Phys. Fluids B* 5 1605-1613
- 1993, Poirier, J.-P. and Shankland, T.J. "Dislocation melting of iron and the temperature of the inner core boundary, revisited" *Geophys. J. Int.* 115 147-151
- 1993, Polyakov, V.V. and Golovin, A.V. "Elastic characteristics of porous materials" *J. Appl. Mech. Tech. Phys.* 34 625-628
- 1993, Popov, N.N., Andreev, N.N., Mochkaev, M.K., Martyanov, V.A. and Tikhonova, Y.S. "A gas gun for investigation of materials and production joints in shock loading" *Indust. Lab.* 59 623-625
- 1993, Popov, V.L. "Dynamics of plastic rotations in crystals" *Tech. Phys. Letts* 19 466-467
- 1993, Popovich, A.A., Reva, V.P., Popovich, T.A., Vasilenko, V.N. and Belous, O.A. "Phase transformations in iron powders and their alloys due to shock-wave treatment" *Powder Metall. Metal Ceramics* 32 86-88
- 1993, Prakash, V. "Plate-impact investigations of dynamic fracture initiation and time resolved friction", PhD thesis, Univ. of Brown

- 1993, Prakash, V. and Clifton, R.J. "Time resolved dynamic friction measurements in pressure-shear", in "Experimental Techniques in the Dynamics of Deformable Solids (AMD 165)", ed. K.T. Ramesh, pp. 33-47, publ. New York, American Society of Mechanical Engineers
- 1993, Pronin, A. and Gupta, V. "Interferometry on diffuse surfaces in high-velocity measurements" *Rev. Sci. Instrum.* 64 2233-2236
- 1993, Raiser, G. and Clifton, R.J. "High strain rate deformation and damage in ceramic materials" *Trans. ASME: J. Engng Mater. Technol.* 115 292-299
- 1993, Rakhimov, A.E. "Optical microstructure of explosively compacted ribbon toroids from iron-based amorphous alloy" *J. Mater. Sci. Letts* 12 1891-1893
- 1993, Ramesh, K.T., Yadav, S. and Davis, J.A. "Shear localization in a tungsten heavy alloy", in "Tungsten and Tungsten Alloys 1992", ed. A. Bose and R.J. Dowding, pp. 299-306, publ. Princeton, New Jersey, Metal Powder Industries Federation
- 1993, Ramu, A. and Rao, M.P.R. "Converging spherical and cylindrical shock waves" *J. Engng Math.* 27 411-417
- 1993, Rao, V.B., Rajendran, R., Jaykumar, A.V. and Satyanarayana, K.H.B.S. "Metallurgical investigation of HSLA steel subjected to underwater explosion" *Shock Vibration* 1 385-394
- 1993, Ravindran, R. and Prasad, P. "On an infinite system of compatibility conditions along a shock ray" *Quart. J. Mech. Appl. Math.* 46 131-140
- 1993, Ritchie, S.J., Wu, S.R., Thynell, S.T. and Kuo, K.K. "Shock-induced, hot gas conductive ignition characteristics of solid gun propellants", in "Proc. 30th JANNAF Combustion Subcommittee Meeting. Vol. 1", ed. M.T. Gannaway, pp. 283-294, publ. Columbia, MD, Chemical Propulsion Information Agency
- 1993, Ritchie, J.P. "Molecular modeling of slip supposed to occur in the shock initiation of crystalline PETN" *Mater. Res. Soc. Symp. Proc.* 296 99-106
- 1993, Rosenberg, Z. "On the relation between the Hugoniot elastic limit and the yield strength of brittle materials" *J. Appl. Phys.* 74 752-753
- 1993, Ross, M. "Equations of state", in "Encyclopedia of Applied Physics. Vol. 6", ed. G.L. Trigg, pp. 291-309, publ. New York, VCH Publishers Inc.
- 1993, Ross, M. and Young, D.A. "Theory of the equation of state at high pressure" *Ann. Rev. Phys. Chem.* 44 61-87
- 1993, Rykova, I.I. and Nikulin, Y.A. "Determination of the velocities that specify the range of applicability of hydrodynamic theory to high-velocity interaction of solids" *Tech. Phys.* 38 531-532
- 1993, Sanchidrián, J.A. "Analytical and numerical study of the shock pressure in the gap test" *Propell. Explos. Pyrotech.* 18 325-331
- 1993, Sano, Y. "Underdetermined system theory applied to quantitative analysis of response caused by unsteady plane waves" *J. Appl. Phys.* 73 118-130

- 1993, Sano, Y., Tokushima, K. and Tamashita, M. "General-form solution of shock fitting equation including die wall friction for the multishock powder compaction" *Trans. ASSME: J. Engng Mater. Technol.* 115 424-432
- 1993, Saunders, G.A., Senin, H.B., Sidek, H.A.A. and Pelzl, J. "Third-order elastic constants, vibrational anharmonicity, and the invar behavior of the Fe₇₂Pt₂₈ alloy" *Phys. Rev. B* 48 15801-15806
- 1993, Sawaoka, A.B., Ed. "Shock Waves in Materials Science", publ. Berlin, Springer-Verlag
- 1993, Sawaoka, A.B. "Heterogeneous distribution of temperatures and pressures on the shock recovery fixtures and its utilization to Materials Science study", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 1-16, publ. Berlin, Springer Verlag
- 1993, Schmidt, S.C., Moore, D.S., Shaw, M.S. and Johnson, J.D. "Coherent anti-Stokes Raman spectroscopy of shock-compressed liquid nitrogen/carbon monoxide mixtures" *J. Chem. Phys.* 98 9379-9388
- 1993, Serdechnyi, A.S. and Khorkhov, V.A. "Formation of shock pulses in drilling tool during double collision between bodies with allowance for interaction between tool and rock" *J. Mining Sci.* 29 510-517
- 1993, Sharma, J. and Beard, B.C. "Electronic excitations preceding shock initiation in explosives" *Mater. Res. Soc. Symp. Proc.* 296 189-198
- 1993, Sharma, J.N. and Chand, D. "Propagation of waves in rotating magneto-thermoelastic media" *Arch. Mech.* 45 387-403
- 1993, Shen, X.A. and Gupta, Y.M. "Effect of crystal orientation on ruby R-line shifts under shock compression and tension" *Phys. Rev. B* 48 2929-2940
- 1993, Shtertser, A.A. "Effect of the particle surface state on the particle consolidation in explosive compacting of powdered and granular materials" *Combust. Explos. Shock Waves* 29 734-739
- 1993, Shukla, A., Sadd, M.H., Singh, R., Tai, Q. and Vishwanathan, S. "Role of particle shape and contact profile on the dynamic response of particulate materials" *Optics Lasers Engng* 19 99-119
- 1993, Sidilkover, D. and Karniadakis, G.E. "Nonoscillatory spectral element Chebyshev method for shock-wave calculations" *J. Comput. Phys.* 107 10-22
- 1993, Sidorov, A.F. "Maximum energy accumulation index in unshocked gas compression" *Phys. Doklady* 38 151-154
- 1993, Simpson, R.L., Helm, F.H. and Kury, J.W. "Non-reactive HMX shock Hugoniot data" *Propell. Explos. Pyrotech.* 18 150-154
- 1993, Sinkovits, R.S., Phillips, L., Oran, E.S. and Boris, J.P. "Molecular dynamics simulations of shock-defect interactions in two-dimensional nonreactive crystals" *Mater. Res. Soc. Symp. Proc.* 296 161-166

- 1993, Skews, B.W., Atkins, M.D. and Seitz, M.W. "The impact of a shock wave on porous compressible foams" *J. Fluid Mech.* 253 245-265
- 1993, Somayazulu, M.S., Sharma, S.M., Garg, N., Chaplot, S.L. and Sikka, S.K. "The behaviour of α -quartz and pressure-induced SiO_2 glass under pressure: A molecular dynamical study" *J. Phys.: Condens. Matter* 5 6345-6356
- 1993, Song, S.G. and Gray III, G.T. " ω -phase formation in shock-loaded zirconium", LA-UR 93-2292, Los Alamos, New Mexico, Los Alamos National Laboratory
- 1993, Souers, P.C. and Kury, J.W. "Comparison of cylinder data and code calculations for homogeneous explosives" *Propell. Explos. Pyrotech.* 18 175-183
- 1993, Spivak, A.A. "Aftershocks of the powerful underground explosion in the nonuniform medium (in Russian)" *Dokl. Akad. Nauk.* 329 435-437
- 1993, Stankevich, A.I., Evkin, A.Y. and Venetennikov, S.A. "Stability of thin spherical shells under dynamic loading" *Int. Appl. Mech.* 29 35-42
- 1993, Steinberg, D.J. "A rate-dependent constitutive model for molybdenum" *J. Appl. Phys.* 74 3827-3831
- 1993, Stepanov, G.V. and Zubov, V.I. "Calculation of compaction of porous iron under compression. 3: Dynamic compression of porous iron" *Strength Mater.* 25 412-416
- 1993, Sudenkov, Y.V. and Nikitin, Y.B. "Influence of the structure on the strain hardening of metals under submicrosecond shock loading" *Tech. Phys. Letts* 19 383-384
- 1993, Sweatt, W.C., Crump Jr., O.B. and Brigham, W.P. "Optimization of a VISAR for measuring flyer-plate velocities" *Proc. SPIE* 1757 82-88
- 1993, Syono, Y. and Kikuchi, M. "Shock effects on structural and superconducting properties of high T_c oxides", in "Shock Waves in Materials Science", ed. A.B. Sawaoka, pp. 101-112, publ. Berlin, Springer Verlag
- 1993, Szepessy, A. and Xin, Z.P. "Nonlinear stability of viscous shock waves" *Arch. Ration. Mech. Anal.* 122 53-103
- 1993, Takayama, K. "Application of underwater shock wave focusing to the development of extracorporeal shock wave lithotripsy" *Jpn J. Appl. Phys.* 32 2192-2198
- 1993, Takayama, K. "Holographic interferometric study of shock wave phenomena" *Proc. SPIE* 1801 304-313
- 1993, Takayama, K., Nagoya, H., Obara, T. and Kuwahara, M. "Application of holographic interferometric studies of underwater shock-wave focusing to medicine" *Proc. SPIE* 1801 1029-1034
- 1993, Takeda, N., Komatsu, H. and Takahashi, K. "Spall fracture characterization of thermosetting and thermoplastic polymer matrix composite plates" *Adv. Compos. Mater.* 3 85-98

- 1993, Tarver, C.M., Urtiew, P.A., Chidister, S.K. and Green, L.G. "Shock compression and initiation of LX-10" *Propell. Explos. Pyrotech.* 18 117-127
- 1993, Thadhani, N.N. "Shock-induced chemical reactions and synthesis of materials" *Prog. Mater. Sci.* 37 117-226
- 1993, Tidman, D.A. and Massey, D.W. "Electrothermal light gas gun" *IEEE Trans. Magnetics* 29 621-625
- 1993, Tokmakoff, A., Fayer, M.D. and Dlott, D.D. "Chemical reaction initiation and hot-spot formation in shocked energetic molecular materials" *J. Phys. Chem.* 97 1901-1913
- 1993, Tomita, Y., Obara, T., Takayama, K. and Kuwahara, M. "Cavitation phenomena in extracorporeal microexplosion lithotripsy" *Shock Waves* 3 149-157
- 1993, Tomoshige, R., Chiba, A., Nishida, M., Imamura, K., Itoh, S. and Fujita, M. "Fabrication and some mechanical properties of SiC whisker-reinforced silicon nitride composites utilizing underwater shock pressure (in Japanese)" *J. Ceram. Soc. Jpn* 101 445-450
- 1993, Tong, W. and Ravichandran, G. "Dynamic pore collapse in viscoplastic materials" *J. Appl. Phys.* 74 2425-2435
- 1993, Toutlemonde, F., Boulay, C. and Gourraud, C. "Shock-tube tests of concrete slabs" *Mater. Struct.* 26 38-42
- 1993, Trebinski, R. and Wlodarczyk, E. "The analysis of explosive compactions of a cermet copper-aluminium oxide" *J. Tech. Phys.* 34 3-13
- 1993, Trunin, R.F. and Simakov, G.V. "Shock compression of ultralow density nickel" *J. Exper. Theor. Phys.* 76 1090-1094
- 1993, Trunin, R.F., Podurets, M.A., Popov, L.V., Moiseev, B.N., Simakov, G.V. and Sevastyanov, A.G. "Determination of the shock compressibility of iron at pressures up to 10 TPa" *J. Exper. Theor. Phys.* 76 1095-1098
- 1993, Truskinovsky, L. "Kinks versus shocks", in "Shock Induced Transitions and Phase Structures in General Media", ed. J.E. Dunn, R. Fosdick and M. Slemrod, pp. 185-229, publ. Berlin, Springer
- 1993, Trzcinski, W. "Scattering of the detonation products of an explosive with solid particles undergoing phase transformation with given kinetics" *J. Tech. Phys.* 34 361-370
- 1993, Tumanov, V.A., Isaev, V.N. and Batsanov, S.S. "pV-curves in the dynamic-static compression method" *Combust. Explos. Shock Waves* 29 646-648
- 1993, Tyndall, M.B. "Numerical modelling of shocks in solids with elastic-plastic conditions" *Shock Waves* 3 55-66
- 1993, Utkin, A.V. "Effect of initial failure rate on the formation of a spalling pulse" *J. Appl. Mech. Tech. Phys.* 34 578-584
- 1993, Vaidyanathan, P.V. and Ramanathan, A. "Computer-aided design of explosive welding systems" *J. Mater. Process. Technol.* 38 501-516

- 1993, Vidal, P., Cowperthwaite, M., Presles, H.-N. and Fontaine, D. "Non-unicité de la relation entre la courbure et la célérité du front de choc de l'onde de détonation" C.R. Acad. Sci. Paris Sér. II 316 177-180
- 1993, Vogel, A., Busch, S. and Asiyo-Vogel, M. "Time-resolved measurements of shock-wave emission and cavitation bubble generation in intraocular laser surgery with ps- and ns-pulses and related tissue effects" Proc. SPIE 1877 312-322
- 1993, Volkov, I.A. "Numerical analysis of spallation failure of thin plates under shock deformation" J. Appl. Mech. Tech. Phys. 34 169-173
- 1993, Volyntsev, A.B. and Shilov, A.N. "A new plasticization mechanism for impact loading of solids" Phys. Doklady 38 89-91
- 1993, Voskoboinikov, I.M. and Tolstov, I.K. "Luminescence of shock compressed benzene and 1,3-pentadiene" Khim. Fiz. 12 1288-1293
- 1993, Voskoboinikov, I.M., Grigoryan, V.A., Tolstov, I.K., Beloborodko, A.N. and Fomchenko, E.S. "Evaluation of wave disturbance velocities behind shock fronts in corund and silicon carbide" Khim. Fiz. 12 1506-1511
- 1993, Wagner, N.J. and Holian, B.L. "Massively parallel molecular dynamics simulations of two-dimensional materials at high strain rates", in "Materials Theory and Modeling Symposium", ed. J. Broughton, P. Bristowe and J. Newsam, pp. 91-96, publ. Pittsburgh, Materials Research Society
- 1993, Wall, A., Parker, S.C. and Watson, G.W. "The extrapolation of elastic moduli to high pressure and temperature" Phys. Chem. Minerals 20 69-75
- 1993, Wang, Z.P., Huang, F.L., Hou, M. and Yun, S.R. "Description of two-dimensional spallation in pure copper" Int. J. Fract. 60 195-208
- 1993, Wang, Z.-P. "A study of one-dimensional dynamic damage in pure copper" Acta Mech. Solida Sinica 6 69-80
- 1993, Wang, Z.P., Huang, F.L., Hou, M., Yun, S.R. and Ding, J. "Analytical and experimental study of spallation damage in pure copper based on a heuristic hydrodynamic model" Theor. Appl. Fract. Mech. 19 95-105
- 1993, Warnes, R.H. "Special topics in test methodology: Fabry-Perot interferometry", in "Tactical Missile Warheads", ed. J. Carleone, pp. 719-723, publ. Washington DC, American Institute of Aeronautics and Astronautics
- 1993, Waschl, J.A. and Hatt, D.J. "Characterization of a small-scale exploding bridge foil flyer generator" Int. J. Impact Engng 14 785-796
- 1993, Weir, S.T. and Nellis, W.J. "Shock-wave processing of high-temperature superconductors" Mater. Sci. Forum 137-139 355-375
- 1993, Wen, X., Tolbert, W.A. and Dlott, D.D. "Ultrafast temperature jump in polymers: Phonons and vibrations heat up at different rates" J. Chem. Phys. 99 4140-4151

- 1993, White, C.T., Robertson, D.H., Elert, M.L., Mintire, J.W. and Brenner, D.W. "Dissociative phase transitions, split shock waves, rarefaction shocks, and detonations" *Mater. Res. Soc. Symp. Proc.* 296 123-128
- 1993, Wierzbicki, T. and Hoo Fatt, M.S. "Damage assessment of cylinders due to impact and explosive loading" *Int. J. Impact Engng* 13 215-242
- 1993, Williams, Q., Hemley, R.J., Kruger, M.B. and Jeanloz, R. "High-pressure infrared spectra of alpha-quartz, coesite, stishovite and silica glass" *J. Geophys. Res.* 98 22157-22170
- 1993, Winterberg, F. "Alternative approach to inertial confinement fusion" *Phys. Letts A* 172 4430446
- 1993, Wlodarczyk, E. "Modification of the JWL equation of state: The W equation of state" *J. Tech. Phys.* 34 311-328
- 1993, Yadav, R.P. "Effect of overtaking disturbances on strong cylindrical shock wave" *Model. Meas. Control. B* 49(2) 49-55
- 1993, Yadav, S., Davis, J.A. and Ramesh, K.T. "Damage and recovery experiments using pressure-shear plate impact", in "Experimental Techniques in the Dynamics of Deformable Solids (AMD 165)", ed. K.T. Ramesh, pp. 71-78, publ. New York, American Society of Mechanical Engineers
- 1993, Yakub, E.S. "Polymerization in shock-pressurized nitrogen" *Russ. J. Phys. Chem.* 67 275-279
- 1993, Yamada, H., Fujiwara, T., Kusano, K. and Yamauchi, Y. "Electrical breakdown assisted by shock-wave in benzene" *Jpn J. Appl. Phys. Letts* 32 932-935
- 1993, Yamakawa, A., Nishioka, T., Miyake, M., Wakamori, K., Nakamura, A. and Mashimo, T. "Shock-yielding properties of silicon nitride ceramics: Correlation with the microstructure and static mechanical strength (in Japanese)" *J. Ceram. Soc. Jpn* 101 1358-1362
- 1993, Yanagida, Y., Iwama, N. and Okazaki, K. "Pressure distribution for piezoelectric extracorporeal shock-wave lithotripsy" *Jpn J. Appl. Phys.* 32 2490-2493
- 1993, Yoo, C.S., Holmes, N.C., Ross, M., Webb, D.J. and Pike, C. "Shock temperatures and melting of iron at Earth core conditions" *Phys. Rev. Letts* 70 3931-3934
- 1993, Yousuff, M. and Page, N.W. "Die stress and internal friction during quasistatic and dynamic powder compaction" *Powder Technol.* 76 299-307
- 1993, Yuan, J. and Gupta, V. "Measurement of interface strength by the modified laser spallation technique. 1: Experiment and simulation of the spallation process" *J. Appl. Phys.* 74 2388-2396
- 1993, Yuan, J., Gupta, V. and Pronin, A. "Measurement of interface strength by the modified laser spallation technique. 3: Experimental optimization of the stress pulse" *J. Appl. Phys.* 74 2405-2410
- 1993, Zhang, J., Liebermann, R.C., Gasparik, T., Herzberg, C.T. and Fei, Y. "Melting and subsolidus relations of SiO₂ at 9-14 GPa" *J. Geophys Res.* 98 19785-19793

- 1993, Zheleznyi, V.B., Zagorskii, A.V., Katsnelson, S.S. and Kudryavtsev, A.V. "Theoretical and experimental modeling of railgun operation" J. Appl. Mech. Tech. Phys. 34 180-184
- 1993, Zhong, P. and Chuong, C.J. "Propagation of shock waves in elastic solids caused by cavitation microjet impact. 1: Theoretical formulation" J. Acoust. Soc. Amer. 94 19-28
- 1993, Zhong, P., Chuong, C.J. and Preminger, G.M. "Propagation of shock waves in elastic solids caused by cavitation microjet impact. 2: Application in extracorporeal shock-wave lithotripsy" J. Acoust. Soc. Amer. 94 29-36
- 1993, Zhou, M., Clifton, R.J. and Needleman, A. "Shear band formation in a W-Ni-Fe alloy under plate impact", in "Tungsten and Tungsten Alloys 1992", ed. A. Bose and R.J. Dowding, pp. 343-356, publ. Princeton, New Jersey, Metal Powder Industries Federation
- 1993, Zhuk, A.Z., Ivanov, A.V., Kanel, G.I. and Rozanov, O.K. "Shock-wave compressibility and damage in glass textolite" Combust. Explos. Shock Waves 29 760-764