

### Shock Physics Papers 1990

- 1990, Abeyaratne, R. and Knowles, J.K. "On the driving traction acting on a surface of strain discontinuity in a continuum" *J. Mech. Phys. Solids* 38 345-360
- 1990, Adadurov, G.A. and Goldanskii, V.I. "Shock wave compression of mixtures of powders with liquefied gases" *J. Phys. Chem.* 94 1110-1113
- 1990, Addessio, F.L. and Johnson, J.N. "A constitutive model for the dynamic response of brittle materials" *J. Appl. Phys.* 67 3275-3286
- 1990, Agnew, S.F., Pinnick, D.A., Pettit, D.R., Dick, J.J. and Swanson, B.I. "Comparative static and dynamic measurements in dinitrogen tetroxide ( $N_2O_4$ )", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 867-870, publ. Amsterdam, Elsevier
- 1990, Ahrens, T.J., Bass, J.D. and Abelson, J.R. "Shock temperatures in metals", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 851-857, publ. Amsterdam, Elsevier
- 1990, Ahrens, T.J., Tan, H. and Bass, J.D. "Analysis of shock temperature data for iron" *High Press. Res.* 2 145-158
- 1990, Alam, M., DebRoy, T. and Roy, R. "Laser-induced calcite-aragonite transition" *J. Amer. Ceram. Soc.* 73 733-735
- 1990, Altshuler, L.V. and Simonenko, V.A. "History and prospects of shock wave physics" *High Press. Res.* 5 813-815
- 1990, Anderson, M.U., Graham, R.A. and Wackerbarth, D.E. "Prediction and data analysis of current pulses from impact loaded piezoelectric polymers (PVDF)", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 805-808, publ. Amsterdam, Elsevier
- 1990, Anderson Jr., C.E., O'Donoghue, P.E. and Skerhut, D. "Anisotropic model development for shock applications", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 177-180, publ. Amsterdam, Elsevier
- 1990, Anderson Jr., C.E., O'Donoghue, P.E. and Skerhut, D. "A mixture theory approach for the shock response of composite materials" *J. Compos. Mater.* 24 1159-1178
- 1990, Anikev, I.I., Mikhailova, M.I. and Sushchenko, E.A. "Experimental study of the dynamic deformation of elastic cylindrical shells in water with evacuation of the internal cavity" *Sov. Appl. Mech.* 26 1064-1068
- 1990, Arnold, W. and Sachs, W. "Measuring and simulation of steady shock wave profiles in Armco iron", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 337-340, publ. Amsterdam, Elsevier

- 1990, Arnold, W., Held, M. and Stilp, A.J. "Spallation behavior of Armco iron", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 421-424, publ. Amsterdam, Elsevier
- 1990, Asay, J.R., Trucano, T.G. and Hawke, R.S. "The use of hypervelocity launchers to explore previously inaccessible states of matter" *Int. J. Impact Engng* 10 51-66
- 1990, Asay, J.R. and Trucano, T.G. "Studies of density distributions in one-dimensional shock-induced debris clouds" *Int. J. Impact Engng* 10 35-50
- 1990, Asay, J.R. and Trucano, T.G. "Experimental measurements of shock-induced vaporization in cadmium and lead", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 143-146, publ. Amsterdam, Elsevier
- 1990, Atroshenko, S.A., Beilina, O.Y., Gladyshev, S.A., Divakov, A.K., Meshcheryakov, Y.I. and Petrov, Y.A. "Localization of deformation and fracture during spall" *Combust. Explos. Shock Waves* 26 309-315
- 1990, Atroshenko, S.A., Balicheva, T.V., Divakov, A.K. and Meshcheryakov, Y.I. "Mechanisms of the localized failure of a material in load waves" *Strength Mater.* 22 748-757
- 1990, Attia, A.V. "Numerical simulation of shock response of fluid-filled porous rocks", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 637-640, publ. Amsterdam, Elsevier
- 1990, Austing, J.L. and Baker, D.E. "The shock initiation of covered explosive and pyrotechnic charges by flyer plate impact across an air gap. 2: Results for composition A4", in "Proc. 15th Int. Pyrotechnics Seminar", pp. 35-50, publ. Chicago, IIT Research Institute
- 1990, Avrorin, E.N. "The equation of state of condensed matter in the 100-200 Mbar pressure range" *High Press. Res.* 5 822-825
- 1990, Azzerboni, B., Cardelli, E., Raugi, M. and Tellini, A. "Analysis of an arc-driven railgun for fusion fuel pellet injection" *IEEE Trans. Magnetics* 26 3097-3101
- 1990, Ballard, P., Fournier, J., Fabbro, R., Frelat, J. and Castex, L. "Residual stresses induced by laser shocks", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 341-344, publ. Amsterdam, Elsevier
- 1990, Bampi, F. and Zordan, C. "Higher-order shock-waves" *J. Appl. Math. Phys.* 41 12-19
- 1990, Banas, G., Elsayed-Ali, H.E., Lawrence Jr., F.V. and Rigsbee, J.M. "Laser shock induced mechanical and microstructural modification of welded maraging steel" *J. Appl. Phys.* 67 2380-2384

- 1990, Barbieri, F. and Patuelli, C. "Recovery of copper after shock-loading by means of Fourier analysis of x-ray diffraction line profiles", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 453-456, publ. Amsterdam, Elsevier
- 1990, Barbieri, F. and Patuelli, C. "Shock-wave and conventional deformation of aluminum and dispersion-hardened aluminum alloy containing different concentrations of alumina particles" *Nuovo Cimento D* 12 1131-1141
- 1990, Bardo, R.D. "Theoretical study of the coupling of electrons and lattice wave packets in superconducting metastable states formed at high shock pressure", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 595-598, publ. Amsterdam, Elsevier
- 1990, Barker, L.M., Chhabildas, L.C., Trucano, T.G. and Asay, J.R. "High gas pressure acceleration of flier plates – Experimental techniques" *Int. J. Impact Engng* 10 67-80
- 1990, Barker, L.M., Chhabildas, L.C., Trucano, T.G. and Asay, J.R. "Gas-accelerated plate stability study", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 989-991, publ. Amsterdam, Elsevier
- 1990, Barkhudarov, E.M., Mdivnishvili, M.O., Sokolov, I.V., Taktakishvili, M.I. and Terekhin, V.E. "Formation of quasispherical converging implosion shock wave upon the reflection of an annular shock wave from a solid" *JETP Letts* 52 379-382
- 1990, Barmin, A.A. and Shchelkachev, M.V. "The analysis of the stability of shock waves" *J. Appl. Math. Mech.* 54 725-726
- 1990, Bass, J.D., Ahrens, T.J., Abelson, J.R. and Hua, T. "Shock temperature measurements in metals: New results for an iron alloy" *J. Geophys. Res.* 95 21767-21776
- 1990, Batsanov, S.S., Kopaneva, L.I., Lazareva, E.V., Gavryushin, V.N., Isaev, V.N. and Porokhov, P.V. "Formation of  $Zr_{1-x}Fe_xS_2$  solid solutions by micro-particles derived from retention ampuls during shock compression" *Combust. Explos. Shock Waves* 26 614-616
- 1990, Batsanov, S.S. "On the possibility of chemical reactions at high dynamic pressures" *Sov. J. Chem. Phys.* 6 3106-3121
- 1990, Batsanov, S.S., Bolkhovitinov, L.G. and Martynov, A.I. "Preservation of high-pressure metastable phases in shock compression" *Sov. Tech. Phys. Letts* 16 64-65
- 1990, Bauer, F. and Graham, R.A. "Behaviour of  $VF_2/VF_3$  piezoelectric copolymers under shock loading", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 793-796, publ. Amsterdam, Elsevier

- 1990, Bear, J. and Sorek, S. "Evolution of governing mass and momentum balances following an abrupt pressure impact in porous medium" *Transport Porous Media* 5 169-185
- 1990, Beauchamp, E.K. and Carr, M.J. "Kinetics of phase change in explosively shock-treated alumina" *J. Amer. Ceram. Soc.* 73 49-53
- 1990, Beloshapko, A.G., Bukaemskii, A.A. and Staver, A.M. "Formation of ultradispersed compounds upon shock wave loading of porous aluminum. Study of particles obtained" *Combust. Explos. Shock Waves* 26 457-461
- 1990, Belov, N.N., Korneev, A.I. and Simonenko, V.G. "Model of cleavage fracture of a porous elastoplastic medium which undergoes a polymorphic phase transition" *Sov. Phys. Dokl.* 35 175-177
- 1990, Belyaev, V.V. and Naimark, O.B. "Localized peaking structures formed in the process of fracture of solids subjected to intense shock loading" *Sov. Phys. Dokl.* 35 436-438
- 1990, Bengisu, M., Inal, O.T. and Hellmann, J.R. "Effect of dynamic compaction on the retention of tetragonal zirconia and mechanical properties of alumina/zirconia composites" *J. Amer. Ceram. Soc.* 73 346-351
- 1990, Bergelson, V.I., Nemchinov, I.V., Orlova, T.I. and Khazins, V.M. "Propagation of strong shock waves in locally nonuniform condensed media" *Sov. Tech. Phys. Letts* 16 795-796
- 1990, Beuhler, R.J., Friedlander, G. and Friedman, L. "Reply to comments on 'Cluster-impact fusion'" *Phys. Rev. Letts* 64 2211
- 1990, Billingsley, J.P. and Oliver, J.M. "The relevance of the de Broglie relation to the Hugoniot elastic limit of shock loaded materials", TR-RD-SS-90-4, Redstone Arsenal, Alabama, US Army Missile Command
- 1990, Birnboim, A. and Rosenberg, Z. "The response of shorted quartz gauge to impact loading", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 833-836, publ. Amsterdam, Elsevier
- 1990, Blazynski, T.Z. "Simulation of explosive welding parameters by means of a liquid analog" *Materialwissenschaft u. Werkstofftechnik* 21 16-27
- 1990, Bless, S.J., Brar, N.S. and Rosenberg, Z. "Failure of ceramic and glass rods under dynamic compression", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 939-942, publ. Amsterdam, Elsevier
- 1990, Blumenthal, W.R. and Gray III, G.T. "Characterization of shock-loaded aluminum-infiltrated boron carbide cermets", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 393-396, publ. Amsterdam, Elsevier

- 1990, Boehler, R., von Bargen, N. and Chopelas, A. "Melting, thermal expansion and phase transitions of iron at high pressure" *J. Geophys. Res.* 95 21731-21736
- 1990, Bohor, B.F. "Shocked quartz and more: Impact signatures in Cretaceous-Tertiary boundary clays", in "Global Catastrophes in Earth History", ed. V.L. Sharpton and P.D. Ward, pp. 335-347, publ. New York, Geological Society of America
- 1990, Bohor, B.F. "Shock-induced microdeformations in quartz and other mineralogical indications of an impact event at the Cretaceous-Tertiary boundary" *Tectonophysics* 171 359-372
- 1990, Bondarenko, A.A., Zolotarev, S.N., Kirko, S.I., Kleshchev, A.V., Lobasov, S.A., Tarasova, L.S., Khramenko, S.A. and Yazvitskii, M.Y. "Study of bulk amorphous alloy  $\text{Fe}_{70}\text{Cr}_{10}\text{P}_{13}\text{C}_7$  prepared by dynamic compaction" *Combust. Explos. Shock Waves* 26 746-749
- 1990, Boness, D.A. and Brown, J.M. "Time-resolved optical spectroscopy of shock-compressed fluid alkali halides", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 863-866, publ. Amsterdam, Elsevier
- 1990, Bordzilovskii, S.A. and Karakhanov, S.M. "Electrical insulating properties of fluoroplastic interlayers under dynamic compression" *Combust. Explos. Shock Waves* 26 485-489
- 1990, Bordzilovsky, S.A. and Karakhanov, S.M. "Electrical resistivity of PTFE layers under dynamic compression", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 801-804, publ. Amsterdam, Elsevier
- 1990, Borimchuk, N.I., Kurdyumov, A.V. and Yarosh, V.V. "Structural principles of the formation of diamond and cubic boron nitride in shock waves" *Khim. Fiz.* 9 1686-1688
- 1990, Boslough, M.B. "A thermochemical model for shock-induced reactions (heat detonations) in solids" *J. Chem. Phys.* 92 1839-1848
- 1990, Boslough, M.B. "Thermochemical model for shock induced chemical reactions in porous thermite: The heat detonation model", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 671-674, publ. Amsterdam, Elsevier
- 1990, Brown, W.T. "A computational study of shock propagation in Indiana limestone", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 629-632, publ. Amsterdam, Elsevier
- 1990, Bukiet, B. and Menikoff, R. "Sharp shock model for propagating detonation waves", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 259-262, publ. Amsterdam, Elsevier

- 1990, Burenin, A.A. and Rossikhin, Y.A. "Influence of viscosity on the nature of the propagation of a plane extensional shock wave" J. Appl. Mech. Tech. Phys. 31 807-810
- 1990, Burenin, A.A. and Rossikhin, Y.A. "One-dimensional problem of nonlinear elasticity theory with a structural shock wave" Sov. Appl. Mech. 26 91-95
- 1990, Bushman, A.V., Vorobev, V.S., Rakhel, A.D. and Fortov, V.E. "Possibility of synthesizing artificial diamonds by electrical explosion" Sov. Phys. Dokl. 35 1079-1080
- 1990, Bykovtsev, A.G. "On the plastic loading process behind an unloading shock front" J. Appl. Math. Mech. 54 402-412
- 1990, Cagnoux, J. "Spherical waves in pure alumina: Effects of grain size on flow and fracture", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 445-448, publ. Amsterdam, Elsevier
- 1990, Cagnoux, J. and Cosculluela, A. "Plasticité et fissuration de l'alumine sous sollicitations dynamiques triaxiales: Influence de la taille des grains", in "Endommagement et Rupture Dynamiques (6ème Journée Nationale DYMAT)", paper 5, publ. Gramat, France, DYMAT, Arcueil, France
- 1990, Callen, B.W., Lamb, F.K. and Sullivan, J.D. "Insensitive interval in the evolution of shock waves from explosions", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 241-244, publ. Amsterdam, Elsevier
- 1990, Carraro, C., Chen, B.Q., Schramm, S. and Koonin, S.E. "Estimates of cluster-impact fusion yields" Phys. Rev. A 42 1379-1389
- 1990, Carter, N.L., Officer, C.B. and Drake, C.L. "Dynamic deformation of quartz and feldspar: Clues to causes of some natural crises" Tectonophysics 171 373-391
- 1990, Carter, C.L. "A proposed standard for the objective measurement of muckpile profiles", in "Proc. Third Int. Symp. on Rock Fragmentation by Blasting", pp. 159-162, publ. Parkville, Victoria, Australia, The Australasian Institute of Mining and Metallurgy
- 1990, Cavaller, C. "The evolution of high speed photography and photonics techniques in detonics experiments" Proc. SPIE 1358 210-226
- 1990, Celliers, P. and Eidmann, K. "Conversion of laser light into X-ray in thin foil targets" Phys. Rev. A 41 3270-3280
- 1990, Chang, S.N., Chung, D.-T., Ravichandran, G. and Nemat-Nasser, S. "Plate impact experiments on Mg-PSZ and improved target configuration", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 389-392, publ. Amsterdam, Elsevier

- 1990, Chanteret, P.Y. "Velocity of HE driven metal plates with finite lateral dimensions", in "Proc. 12th Int. Symp. Ballistics. Vol. 1", pp. 369-378, publ. Arlington, Virginia, American Defence Preparedness Association
- 1990, Charest, J.A. and Lynch, C.S. "The response of PVF<sub>2</sub> stress gauges to shock wave loading", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 797-800, publ. Amsterdam, Elsevier
- 1990, Chartagnac, P. "A pragmatic approach to sequential dynamic loadings", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 923-930, publ. Amsterdam, Elsevier
- 1990, Chaves, H., Herrmann, M., Meier, G.E.A., Kowalczyk, P. and Walenta, Z.A. "Measurements of shock wave thickness in perfluoro-n-hexane (PP1)" AIP Conf. Proc. 208 108-113
- 1990, Chéret, R. "The life and work of Pierre Henri Hugoniot", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 11-19, publ. Amsterdam, Elsevier
- 1990, Chhabildas, L.C., Barker, L.M., Asay, J.R. and Trucano, T.G. "Relationship of fragment size to normalized spall strength for materials" Int. J. Impact Engng 10 107-124
- 1990, Chhabildas, L.C., Barker, L.M., Asay, J.R. and Trucano, T.G. "Spall strength measurements on shock-loaded refractory metals", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 429-432, publ. Amsterdam, Elsevier
- 1990, Chhabildas, L.C., Asay, J.R. and Barker, L.M. "Dynamic quasi-isentropic loading of tungsten" High Press. Res. 5 842-844
- 1990, Choe, W.H. and Kim, K. "Variational analysis of a plasma arc armature inside a railgun solid hydrogen pellet accelerator for fueling fusion reactors" Appl. Math. Comput. 37 37-56
- 1990, Chugainova, A.P. "Emergence of linear waves into self-similar conditions in the problem of action of a sudden change in load on the boundary of an elastic half-space" Mech. Solids 25(3) 204-206
- 1990, Clifton, R.J., Raiser, G., Ortiz, M. and Espinosa, H. "A soft recovery experiment for ceramics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 437-440, publ. Amsterdam, Elsevier
- 1990, Clifton, R.J. "High strain rate behavior of metals" Appl. Mech. Rev. 43 S9-S22
- 1990, Cottet, F. and Boustie, M. "Spall measurements in metallic targets using shock waves induced by short duration laser pulses", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 425-428, publ. Amsterdam, Elsevier

- 1990, Cramer, M.S. and Sen, R. "Mixed nonlinearity and double shocks in superfluid helium" *J. Fluid Mech.* 221 233-261
- 1990, Curran, D.R. "Microstatistical fracture mechanics in dynamic fracture", in "Crack Dynamics in Metallic Materials", ed. J.R. Klepaczko, pp. 455-497, publ. Berlin, Springer
- 1990, Cygan, R.T., Boslough, M.B. and Kirkpatrick, R.J. "Experimentally shocked quartz, NMR spectroscopy, and shock wave barometry", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 653-656, publ. Amsterdam, Elsevier
- 1990, Dandekar, D.P. and Hankin, M. "Deformation of a polyvinyl based elastomer subjected to shock loading", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 97-100, publ. Amsterdam, Elsevier
- 1990, Danker, G.R., Newlander, C.D. and Colella, N.J. "Analytical modeling of dynamic tensile behavior in loaded Vamac elastomers", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 213-216, publ. Amsterdam, Elsevier
- 1990, Delius, M. and Brendel, W. "Historical roots of lithotripsy" *J. Lithotripsy Stone Disease* 2 161-162
- 1990, Delius, M., Mueller, W., Goetz, A., Liebich, H. and Brendel, W. "Biological effects of shock waves: Kidney hemorrhage in dogs as a fast shock wave administration rate of 15 hertz" *J. Lithotripsy Stone Disease* 2 103-???
- 1990, Deribas, A.A. "The use of explosion in fabrication of new materials" *High Press. Res.* 5 826-831
- 1990, Derzho, O.G. and Malykh, N.V. "Formation of strong pressure pulses reflected from water-bubble layers" *Arch. Mech.* 42 463-473
- 1990, Deutsch, A. and Scharer, U. "Isotope systematics and shock wave metamorphism. 1: U-Pb in zircon, titanite, and monazite shocked experimentally up to 59 GPa" *Geochim. Cosmochim. Acta* 54 3427-3434
- 1990, Dey, T.N. "Effective stress model for partially and fully saturated rocks", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 617-620, publ. Amsterdam, Elsevier
- 1990, Dick, J.J., Pettit, D.R. and Spencer, W.J. "Crystal orientation effects in PETN explosive with 4 GPa shocks", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 713-715, publ. Amsterdam, Elsevier
- 1990, Diitenberger, M.A., Rajendran, A.M. and Grove, D.J. "A use of microphysical fracture model to describe ceramic material upon impact", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 457-460, publ. Amsterdam, Elsevier



- 1990, Ding, J. "The discovery of gunpowder and shock wave in China", in "Proc. 15th Int. Pyrotechnics Seminar", pp. 515-534, publ. Chicago, IIT Research Institute
- 1990, Dixon, D.G. "Spall failure in a carbon fibre reinforced thermoplastic composite" J. Mater. Sci. Letts 9 606-608
- 1990, Djaoui, A., Hall, T.A., Albers, R.C., Rehr, J.J. and Mustre, J. "Calculation of X-ray absorption structure above K-edge of laser shock-compressed aluminum" Laser Particle Beams 8 319-325
- 1990, Dlott, D.D. and Fayer, M.D. "Shocked molecular solids: Vibrational up pumping, defect hot spot formation, and the onset of chemistry" J. Chem. Phys. 92 3798-3812
- 1990, Dmitriev, A.K. and Furzikov, N.P. "Explosive flashing and generation of shock waves in the ablation of biological tissue by CO<sub>2</sub>-laser pulses" Sov. Phys. Acoust. 36 568-570
- 1990, Dodson, B.W. and Bosclough, M.S. "Techniques for recovery of shock-loaded samples", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 767-769, publ. Amsterdam, Elsevier
- 1990, Dong, Q.-D., Zhang, J.-C., Liu, G.Z. and Jiang, H.-Z. "Fusion produced by implosion of spherical explosive", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 771-774, publ. Amsterdam, Elsevier
- 1990, Drake, R.P., Turner, R.E., Lasinski, B.F., Williams, E.A., Phillion, D.W., Estabrook, K.G., Kruer, W.L., Campbell, E.M., Manes, K.R., Hildum, J.S. and Johnson, T.W. "Erratum: Studies of Raman scattering from overdense targets irradiated by several kilojoules of 0.53 micron laser light" Phys. Fluids B 2 1092
- 1990, Dremin, A.N. and Molodets, A.M. "Metal spall and fracture micromechanism", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 415-420, publ. Amsterdam, Elsevier
- 1990, Dressler, B. "Shock metamorphic features and their zoning and orientation in the Precambrian rocks of the Manicouagan Structure, Quebec, Canada" Tectonophysics 171 229-245
- 1990, Drickamer, H.G. "High pressure since P.W. Bridgman: A personal view" High Press. Res. 5 955-962
- 1990, Drugan, W.J. and Shen, Y. "Finite deformation analysis of restrictions on moving strong discontinuity surfaces in elastic-plastic materials: Quasistatic and dynamic deformations" J. Mech. Phys. Solids 38 553-574, 899
- 1990, Dubovik, A.V. "Method for describing shock wave sensitivity of solid explosives" Combust. Explos. Shock Waves 26 461-463

- 1990, Duffy, T.S. and Ahrens, T.J. "Hugoniot sound velocities and finite strain theory", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 91-94, publ. Amsterdam, Elsevier
- 1990, Dunn, J.E. "Implications and origins of shock structure in solids", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 21-32, publ. Amsterdam, Elsevier
- 1990, Durachenko, A.M., Malinochka, E.Y., Vetoshkin, I.D. and Chuzhko, R.K. "Shock loading effects in an amorphous Fe-Ni-B alloy" Phys. Metals 8 817-821
- 1990, Eden, G., Carden, M.H., Collyer, A.M. and Smith, C.P.M. "Shock wave propagation in a 3-D quartz phenolic composite", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 217-220, publ. Amsterdam, Elsevier
- 1990, Egorushkin, S.A., Nekurovskii, M.L. and Uspenskii, V.S. "Strong shock wave instability in monatomic gases" Sov. Phys. Dokl. 35 623-625
- 1990, Elias, P., Chapron, P. and Mondot, M. "Experimental study of the slowing down of shock-induced matter ejection into argon gas", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 783-786, publ. Amsterdam, Elsevier
- 1990, Eliezer, S., Gilath, I. and Bar-Noy, T. "Laser induced spall in metals: Experiment and simulation" J. Appl. Phys. 67 715-724
- 1990, Eliezer, S., Gazit, Y. and Gilath, I. "Shock wave decay and spall strength in laser-matter interaction" J. Appl. Phys. 68 356-358
- 1990, Ershov, A.P., Kupershtokh, A.L. and Kolomiichuk, V.N. "Formation of fractal structures in an explosion" Sov. Tech. Phys. Letts 16 102-103
- 1990, Erskine, D.J., Green, L. and Tarver, C. "VISAR wave profile measurements in supra-compressed HE", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 717-720, publ. Amsterdam, Elsevier
- 1990, Erskine, D.J. "Calculation of the refractive index change in dissociating shocked benzene", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 883-886, publ. Amsterdam, Elsevier
- 1990, Faral, B., Fabbro, R., Cottet, F. and Romain, J.-P. "X-UV and visible emission of very high shocks (100 Mbar) in gold obtained by impedance mismatch in laser experiments", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 859-862, publ. Amsterdam, Elsevier
- 1990, Faral, B., Fabbro, R., Virmont, J., Cottet, F., Romain, J.P. and Pépin, H. "Importance of two-dimensional effects for the generation of ultra high pressures obtained in laser colliding foil experiments" Phys. Fluids B 2 371-377

- 1990, Farr, J.V. "One dimensional loading rate effects" ASCE J. Geotech. Engng 116 119-135
- 1990, Ferreira, A., Yu, L.H., Thadhani, N.N., Chang, S.N., Chang, S.S. and Meyers, M.A. "Shock compaction, synthesis, and chemically assisted bonding of aluminides and silicides", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 495-498, publ. Amsterdam, Elsevier
- 1990, Filler, W.S., Simenauer, R., Wells, P.W. and Bezirdjian, L. "Experimental modelling of kidney stone destruction by spherical and focused shock waves in water" AIP Conf. Proc. 208 179-184
- 1990, Flock, R.A. "Measurement of 'thin film' Gruneisen using x-cut quartz gauges", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 763-766, publ. Amsterdam, Elsevier
- 1990, Follansbee, P.S. "The HEL and rate-dependent yield behavior", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 349-352, publ. Amsterdam, Elsevier
- 1990, Forbes, J.W., Tasker, D.G., Granholm, R.H. and Gustavson, P.K. "Direct observation of shocked explosive crystals immersed in liquids", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 709-712, publ. Amsterdam, Elsevier
- 1990, Forest, C.A. "Impulse time integral function and Lagrangian analysis", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 189-192, publ. Amsterdam, Elsevier
- 1990, Fosdick, R.L., Warner, W.H. and Yu, J.H. "Steady, structured shock waves in a viscoelastic solid of differential type" Int. J. Engng Sci. 28 469-483
- 1990, Fowler, C.M. "Magnetic flux compression", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 53-64, publ. Amsterdam, Elsevier
- 1990, Fowles, G.R. "On the thermodynamic criterion for detonability of a hphase-transforming substance" Phys. Fluids A 2 872-873
- 1990, Frank, A.M. and Gathers, G.R. "Shock pressure determination in detonator wires", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 759-762, publ. Amsterdam, Elsevier
- 1990, French, B.M. and Nielsen, R.L. "Vredefort bronzite granophyre: Chemical evidence for origin as a meteorite impact melt" Tectonophysics 171 119-138
- 1990, Fry, M.A. "Shock structure and propagation in liquid media from hypervelocity impact" AIP Conf. Proc. 208 963-968
- 1990, Fu, Y.B. and Scott, N.H. "One-dimensional shock waves in simple materials with memory" Proc. R. Soc. Lond. A 428 547-571

- 1990, Furlong, J.R., Alme, M.L. and Davis, J.F. "Modeling the dynamic load/unload behavior of ceramics under impact loading", US Army Research Office
- 1990, Furnish, M.D. "Dynamic compression and release experiments on Indiana limestone", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 625-628, publ. Amsterdam, Elsevier
- 1990, Gabl, E.F., Failor, B.H., Busch, G.E., Schroeder, R.J., Ress, D. and Suter, L. "Plasma evolution from laser-driven gold disks. 1: Experiments and results" Phys. Fluids B 2 2437-2447
- 1990, Gao, J., Bai, R. and Cheng, C. "Measurement of instantaneous temperature in shock-loaded nonmetallic solids" J. Appl. Phys. 67 2272-2277
- 1990, Garcia, A.T., Barbee, T.W., Cohen, M.L. and Silvera, I.F. "Band gap closure and metallization of molecular solid hydrogen" Europhys. Letts 13 355-360
- 1990, Garen, W., Diestelhorst-Becker, N. and Becker, M. "Reflexion- and transmission measurements in shocked water vapours" AIP Conf. Proc. 208 796-801
- 1990, Gathers, G.R. "Determination of spall strength from surface motion studies" J. Appl. Phys. 67 4090-4092
- 1990, Gathers, G.R., Chau, H.H., Osher, J.E. and Weingart, R.C. "Hugoniot measurements with the LLNL electric gun facility", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 113-116, publ. Amsterdam, Elsevier
- 1990, Gertsriken, D.S., Ignatenko, A.I., Mazanko, V.F., Tyshkevich, V.M. and Falchenko, V.M. "Effects of solid solution type on atomic mobilities in alloys during shock compression" Phys. Metals 10 289-295
- 1990, Gilat, A. and Tsai, J. "Application of Bodner viscoplastic theory to pressure-shear plate impact experiment" Trans. ASME: J. Engng Mater. Technol. 112 52-55
- 1990, Gilath, I., eliezer, S. and Shkolnik, S. "Spall behavior of carbon epoxy unidirectional composites as compared to aluminum and iron" J. Compos. Mater. 24 1138-1151
- 1990, Ginzburg, A., Rosenberg, Z. and Birnboim, A. "The measurement of very short stress signals with piezoresistive stress gauges", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 841-844, publ. Amsterdam, Elsevier
- 1990, Glenn, L.A., Latter, A.L. and Martinelli, E.A. "Multistage gasdynamic launchers", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 977-984, publ. Amsterdam, Elsevier
- 1990, Gluzman, S.L., Psakhie, S.G. and Panin, V.E. "Phenomenological model of the inhomogeneous state of a material under a pulse effect" Sov. Phys. J. 33 503-507

- 1990, Godwal, B.K., Meade, C., Jeanloz, R., Garcia, A., Liu, A.Y. and Cohen, M.L. "Ultrahigh pressure melting of lead: A multidisciplinary study" *Science* 248 462-465
- 1990, Godwal, B.K. and Jeanloz, R. "Pressure-induced S-D transfer and the equation of state of molybdenum" *Phys. Rev. B* 41 7440-7445
- 1990, Gogulya, N.F., Voskoboynikov, I.M. and Bulanov, I.V. "Shock compression temperatures of chlorine derivatives of methane" *Sov. J. Chem. Phys.* 5 2656-2664
- 1990, Golub, S.Y., Katrus, O.A., Kuzmenko, N.N., Kulak, L.D., Fomichev, A.S. and Khaenko, B.V. "Structural state of powders of high-speed tool steel produced by shock-centrifugal spraying" *Sov. Powder Metall. Metal Ceramics* 29 943-947
- 1990, Golubev, V.K. and Trunin, I.R. "Simple description of failure conditions for metals with explosive loading" *Combust. Explos. Shock Waves* 26 348-353
- 1990, Golubev, V.K., Sobolev, Y.S. and Yukina, N.A. "Failure of magnesium and magnesium-lithium alloy VMD5 with impact loading" *Strength Mater.* 22 1284-1286
- 1990, Golubev, V.K., Sobolev, Y.S., Tkachenko, I.A. and Yukina, N.A. "Effect of heating on the spalling failure of glass-cloth-base laminate" *Strength Mater.* 22 1463-1465
- 1990, Golubev, V.K., Nelin, S.S., Sobolev, Y.S. and Utugov, Y.V. "The fracture of EI787 and EP410U steels under shock wave loading" *Sov. Mater. Sci.* 26 607-609
- 1990, Goosman, D.R. "Dynamic fringe broadening in multi-line laser Doppler velocimetry" *Appl. Opt.* 29 107-110
- 1990, Gordopolov, Y.A. and Shikhverdiev, R.M. "Computation of the pressure on the surface of a plate hurled by explosion products under sliding detonation" *Combust. Explos. Shock Waves* 26 239-243
- 1990, Grady, D.E. and Furnish, M.D. "Hugoniot and release properties of a water-saturated high silica content grout", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 621-624, publ. Amsterdam, Elsevier
- 1990, Gray, P. and Hawking, S.W. "Yakov Borisovich Zeldovich 1914-1987: Obituary" *Combust. Flame* 81 93-95
- 1990, Gray III, G.T. "Shock recovery experiments: An assessment", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 407-414, publ. Amsterdam, Elsevier
- 1990, Grieve, R.A.F., Coderre, J.M., Robertson, P.B. and Alexopoulos, J. "Microscopic planar deformation features in quartz of the Vredefort structure: Anomalous but still suggestive of an impact origin" *Tectonophysics* 171 185-200

- 1990, Grigoriev, P.V., Pravdin, S.S. and Fomichev, V.P. "Piezospectral method of measuring pressure pulses", in "Megagauss Fields and Pulsed Power Systems", ed. V.M. Titov and G.A. Shvetsov, pp. 301-305, publ. Commack, Nova Science Publishers
- 1990, Grove, D.J., Rajendran, A.M. and Diitenberger, M.A. "Numerical simulation of a double flyer impact experiment", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 365-368, publ. Amsterdam, Elsevier
- 1990, Grove, J.W. and Menikoff, R. "Anomalous reflection of a shock wave at a fluid interface" J. Fluid Mech. 219 313-336
- 1990, Grover, R. "Experimental and theoretical constraints on the iron equation of state" J. Geophys. Res. 95 21743-21748
- 1990, Gülhan, A. and Beylich, A.E. "Detonation wave phenomena in bubbled liquid" AIP Conf. Proc. 208 825-830
- 1990, Gundersen, R.M. "Oblique magnetohydrodynamic shock wave decay" J. Appl. Math. Phys. 41 745-753
- 1990, Gupta, V. and Epstein, D.J. "Current from shock loaded piezoelectric crystals" J. Appl. Phys. 67 2185-2188
- 1990, Gupta, R.C. and Kainth, G.S. "Swinging wake mechanism for interface wave generation in explosive welding of metals" Trans. ASME: J. Appl. Mech. 57 514-521
- 1990, Gupta, V., Argon, A.S., Cornie, J.A. and Parks, D.M. "Measurement of interface strength by laser-pulse-induced spallation" Mater. Sci. Engng A 126 105-117
- 1990, Gurev, D.L. and Kopaneva, L.I. "Action of a shock wave with nonadiabatic unloading on  $\text{Nb}_2\text{O}_5$  and  $\text{MgF}_2$ " Combust. Explos. Shock Waves 26 342-344
- 1990, Gurev, D.L. "Effect of shock waves and subsequent quenching in stream of coolant on  $\text{YBa}_2\text{Cu}_3\text{O}_x$ " Combust. Explos. Shock Waves 26 616-618
- 1990, Gyanchandani, J.S., Gupta, S.C., Sikka, S.K. and Chidambaram, R. "On the shock discontinuities in titanium and zirconium", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 131-134, publ. Amsterdam, Elsevier
- 1990, Hagino, S., Suzuki, M., Takeshita, T., Takashima, H. and Tonda, H. "Microstructures and superconducting properties of Y-Ba-Cu and Bi-Sr-Ca-Cu oxide wires and coils prepared by the explosive compaction technique", in "High Temperature Superconducting Compounds: Processing and Related Properties", ed. S.H. Whang and A.D. Gupta, pp. 503-512, publ. The Minerals, Metals and Materials Society
- 1990, Hama, J., Shiomi, Y. and Suito, K. "Equation of state and metallization of ice under very high pressure" J. Phys.: Condens. Matter 2 8107-8111

- 1990, Hand, R.J. and Field, J.E. "Liquid impact on toughened glasses" *Enging Fract. Mech.* 37 293-311
- 1990, Hardy, R.J. and Karo, A.M. "Stress and energy flux in the vicinity of a shock front", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 161-164, publ. Amsterdam, Elsevier
- 1990, Hargraves, R.B., Cullicott, C.E., Deffeyes, K.S., Hougen, S., Christiansen, P.P. and Fiske, P.S. "Shatter cones and shocked rocks in southwestern Montana: The Beaverhead Impact Structure" *Geology* 18 832-834
- 1990, Harrach, D.J. "High pressure, energy and impulse loading of the wall in a 1 GJ laboratory microfusion facility", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 197-200, publ. Amsterdam, Elsevier
- 1990, Harvey, W.B. and McQueen, R.G. "Perturbations in high-velocity gas flow", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 221-224, publ. Amsterdam, Elsevier
- 1990, Hawke, R.S. and Assay, J.R. "Summary of a decade of railgun development for high-pressure research", in "Megagauss Fields and Pulsed Power Systems", ed. V.M. Titov and G.A. Shvetsov, pp. 773-780, publ. Commack, Nova Science Publishers
- 1990, Hayek, M. and Luttwak, G. "Mach stem formation in plexiglas", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 779-782, publ. Amsterdam, Elsevier
- 1990, Held, M. "Similarities of shock wave damage in air and in water" *Propell. Explos. Pyrotech.* 15 149-156
- 1990, Hendersen, L.F., Virgona, R.J., Di, J. and Gvozdeva, L.G. "Refraction of a normal shock wave from nitrogen into polyurethane foam" *AIP Conf. Proc.* 208 814-818
- 1990, Henderson, L.F., Virgona, R.J., Di, J. and Gvozdeva, L.G. "Refraction of a normal shock wave from nitrogen into polyurethane foam", in "Current Topics in Shock Waves", ed. Y.W. Kim, pp. 814-818, publ. New York, American Institute of Physics
- 1990, Heymann, D. "Raman study of olivines in 37 heavily and moderately shocked ordinary chondrites" *Geochim. Cosmochim. Acta* 54 2507-2510
- 1990, Holian, B.L. "Shock waves, fragmentation, and hypervelocity impacts by molecular dynamics" *NATO Adv. Sci. Inst. Ser. B: Physics* 236 163-176
- 1990, Holmes, N.C., Otani, G., McCandless, P. and Rice, S.F. "Absorption of shocked benzene" *High Press. Res.* 5 669-671
- 1990, Holmes, R.P., Yeaman, L.I., Li, W.J., Hart, L.J., Wallen, C.A., Woodruff, R.D. and McCullough, D.L. "The combination effects of shock waves and cisplatin therapy on rat prostate tumors" *J. Urology* 144 159-163

- 1990, Horie, Y. "Shock compaction of ceramic powders in reactive mixtures", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 479-485, publ. Amsterdam, Elsevier
- 1990, Hoshi, S., Orikasa, S., Kuwahara, M., Yoshikawa, K., Ohyama, C., Satoh, M., Kawamura, S. and Nose, M. "The effect of high-energy underwater shock waves on implanted urinary bladder cancer in rabbits" *Jpn. J. Cancer Res.* 81 317-319
- 1990, Huan, S., Yang, W. and Ding, J. "Experimental calibration for the dynamic tensile coefficient of metal foils", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 361-364, publ. Amsterdam, Elsevier
- 1990, Huan, S. and Ding, J. "A two-dimensional Lagrangian technique for flow-field measurement under high dynamic pressure" *Acta Mech. Sinica* 6 188-192
- 1990, Huang, S., Ding, F., Jing, F., Dong, Y. and Li, Z. "Dynamic quasi-isentropic compression of oxygen free copper", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 313-316, publ. Amsterdam, Elsevier
- 1990, Huffman, A.R., Brown, J.M. and Carter, N.L. "Temperature dependence of shock-induced microstructures in tectosilicates", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 649-652, publ. Amsterdam, Elsevier
- 1990, Hyndman, D.A. and Gaffney, E.S. "Calibration of PVDF transducers at stresses below 1 MPa", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 809-811, publ. Amsterdam, Elsevier
- 1990, Ikazaki, F., Kamiya, K., Uchida, K., Kawamura, M., Gotoh, A. and Fujiwara, S. "Shock modified silicon nitride and its sintering characteristics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 531-534, publ. Amsterdam, Elsevier
- 1990, Ioritani, N., Kuwahara, M., Kambe, K., Taguchi, K., Saitoh, T., Shirai, S., Orikasa, S., Takayama, K. and Lush, P.A. "Renal tissue damage induced by focused shock waves" *AIP Conf. Proc.* 208 185-191
- 1990, Iqbal, Z., Thadhani, N.N., Chawla, N., Rao, K.V., Skumryev, S., Ramakrishna, B.L., Sharma, R., Eckhardt, H. and Owens, F.J. "Shock synthesis and processing of high temperature superconductors", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 575-578, publ. Amsterdam, Elsevier
- 1990, Iskhakov, R.S., Mirko, V.I., Kuzovnikov, A.A. and Zyryanov, M.L. "Effect of shock-wave treatment on the electrical and magnetic properties of metallic glasses" *Combust. Explos. Shock Waves* 26 339-341



- 1990, Jeanloz, R. "The nature of the Earth's core" *Ann. Rev. Earth Planet. Sci.* 18 357-386
- 1990, Jing, F.-Q. "Shock wave physics research in China", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 33-44, publ. Amsterdam, Elsevier
- 1990, Johnson, J.B., Brown, J.A. and Gaffney, E.S. "Interpretation of the stress histories from shock impact tests on snow using embedded stress gauges", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 117-120, publ. Amsterdam, Elsevier
- 1990, Johnson, K.A. and Medina, W.J. "Shock compaction of high-temperature superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_7$  ceramic powders", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 607-610, publ. Amsterdam, Elsevier
- 1990, Justus, B.L., Merritt, C.D. and Campillo, A.J. "Efficient photogeneration of triplets in shock compressed 2,4-dinitrostilbene", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 871-874, publ. Amsterdam, Elsevier
- 1990, Kalitkin, N.N. "Equation of state under extreme conditions" *High Press. Res.* 4 463-465
- 1990, Kalmykov, Y.B., Kanel, G.I., Parkhomenko, I.P., Utkin, A.V. and Fortov, V.E. "Behavior of rubber in shock waves and rarefaction waves" *J. Appl. Mech. Tech. Phys.* 31 116-120
- 1990, Kamegai, M., Walton, O.R. and Taylor, A.G. "Micro-scale simulation of dynamic compaction of oxide and metal powder mixture", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 567-570, publ. Amsterdam, Elsevier
- 1990, Kamler, F. "The flow stress behaviour of copper at high strain rates", M.A.Sc thesis, Univ. of Waterloo, Ontario, Canada
- 1990, Karo, A.M., Deboni, T.M., Hardy, J.R. and Weiss, G.A. "Shock dynamics in the subnanometer femtosecond domain" *Int. J. Quantum Chem.* 24 277-289
- 1990, Kecskes, L.J., Benck, R.F. and Netherwood Jr., P.H. "Dynamic compaction of combustion-synthesized hafnium carbide" *J. Amer. Ceram. Soc.* 73 383-387
- 1990, Kecskes, L.J., Kottke, T. and Niller, A. "Microstructural properties of combustion-synthesized and dynamically consolidated titanium boride and titanium carbide" *J. Amer. Ceram. Soc.* 73 1274-1282
- 1990, Kennel, C.F., Blandford, R.D. and Wu, C.C. "Structure and evolution of small-amplitude intermediate shock waves" *Phys. Fluids B* 2 253-269
- 1990, Kerley, G.I. "Theory of calcite equation of state", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 613-616, publ. Amsterdam, Elsevier

- 1990, Khokhlov, V.I., Popov, G.V., Krasnov, V.D. and Andrianov, V.M. "Special features of the change of structure in titanium alloys in explosive welding" *Metal Sci. Heat Treatment* 32 537-540
- 1990, Kikin, P.Y., Pchelintsev, A.I. and Rusin, E.E. "Abrasive wear of steels after combined shockwave and laser treatment" *Sov. J. Friction Wear* 11(4) 71-73
- 1990, Kikuchi, M., Syono, Y., Kobayashi, N., Oku, T., Aoyagi, E., Hiraga, K., Kusaba, K., Atou, T., Tokiwa, A., Fukuoka, K. and Nakajima, S. "Shock induced superconductivity of  $Tl_2Ba_2CuO_6$ " *Appl. Phys. Letts* 57 813-815
- 1990, Kim, H. and Dlott, D.D. "Blast and shock wave dynamics in complex molecular solids", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 663-666, publ. Amsterdam, Elsevier
- 1990, Kim, H. and Dlott, D.D. "Theory of ultrahot molecular solids: Vibrational cooling and shock-induced multiphonon up pumping in crystalline naphthalene" *J. Chem. Phys.* 93 1695-1709
- 1990, Kim, Y.W., Ed. "Current Topics in Shock Waves", publ. New York, American Institute of Physics
- 1990, Kim, I.H., Hong, S.H., Jhung, K.S. and Oh, K.-H. "Piecewise linear relationship between the shock-wave velocity and the particle velocity for gases" *Phys. Rev. A* 42 2445-2448
- 1990, Kim, K., Zhang, D.J., King, T., Haywood, R., Manns, W. and Venneri, F. "Results from recent hydrogen pellet acceleration studies with a 2m railgun", in "Proc. 13th IEEE Symp. on Fusion Engineering", ed. M.S. Lubell, M.B. Nestor and S.F. Vaughan, pp. 1319-1322, publ. New York, IEEE
- 1990, Kipp, M.E. and Grady, D.E. "Shock compression and release in high-strength ceramics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 377-380, publ. Amsterdam, Elsevier
- 1990, Klepaczko, J.R. "Behavior of rock-like materials at high strain rates in compression" *Int. J. Plast.* 6 415-432
- 1990, Klepaczko, J.R. "Dynamic crack initiation: some experimental methods and modelling", in "Crack Dynamics in Metallic Materials", ed. J.R. Klepackzo, pp. 428-445, publ. Berlin, Springer
- 1990, Klopp, R.W. and Clifton, R.J. "Analysis of tilt in the high strain rate pressure-shear plate impact experiment" *J. Appl. Phys.* 67 7171-7173
- 1990, Kobelev, V.V. "Fragmentation of a composite material and fragmentation of fibres under a dynamic load" *J. Appl. Math .Mech.* 54 577-581
- 1990, Kodama, R. "Studies on energy transport for highly efficient laser implosion (in Japanese)", PhD thesis, Univ. of Osaka, Japan

- 1990, Koeberl, C., Reimold, W.U., Gotzinger, M. and Fredricksson, K. "Reply to discussion of 'Anomalous quartz from the Roter-Kamm impact crater, Namibia: Evidence for post-impact hydrothermal activity'" *Geochim. Cosmochim. Acta* 54 3249-3251
- 1990, Kondo, K.-I. and Sawai, S. "Fabricating nanocrystalline diamond ceramics by a shock compaction method" *J. Amer. Ceram. Soc.* 73 1983-1991
- 1990, Korobeinikov, V.P. and Tivanov, G.G. "Strong shock in gas mixture" *Sov. Phys. Dokl.* 35 129-130
- 1990, Kostyukov, N.A. "Mechanism of lamination of particulate composites in shock loading" *J. Appl. Mech. Tech. Phys.* 31 79-85
- 1990, Kozhevnikov, V.E., Besshaposhnikov, Y.P., Globin, N.K., Geimur, V.V., Raskatov, V.V. and Chernukhin, V.I. "Detonation of plane charges of mixed explosives in application to welding by explosion" *Combust. Explos. Shock Waves* 26 358-361
- 1990, Krasnoshchekov, Y.I., Kuznetsov, L.K., Perevezentsev, V.N., Chernyak, G.B. and Chuvildeev, V.N. "Theory of anomalous ductility for materials with high velocity deformation" *Sov. Phys. Dokl.* 35 573-575
- 1990, Kroupa, J.L. and Rajendran, A.M. "The use of Grady-Kipp type fragmentation model to describe the impact behavior of ceramic materials", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 911-914, publ. Amsterdam, Elsevier
- 1990, Krzhizhanovskii, R.E., Mikushev, V.M., Nikitin, A.A., Potipalova, E.V., Sudenkov, Y.V. and Travina, N.T. "Change in the structure of nickel-based superalloy under the action of shock waves generated by the action of powerful nanosecond laser pulses" *J. Engng Phys.* 59 997-1001
- 1990, Kubenko, V.D., Babaev, A.E. and Krishtalev, V.V. "Unsteady processes in a cylindrical shell with an elastic medium under the influence of a shock load" *Sov. Appl. Mech.* 26 321-327
- 1990, Kulikovskii, A.G. and Pekurovskaya, L.A. "Longitudinal waves in an elastic medium with a piecewise-linear dependence of the stress on the strain" *J. Appl. Math. Mech.* 54 663-668
- 1990, Kunishige, H., Horie, Y. and Sawaoka, A.B. "Numerical and experimental studies of chemically reacting powder mixtures under shock compression", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 527-530, publ. Amsterdam, Elsevier
- 1990, Kusaba, K., Syono, Y. and Matsui, Y. "Molecular dynamics calculation of rutile-fluorite phase transition induced by uniaxial compression", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 135-138, publ. Amsterdam, Elsevier

- 1990, Kutsar, A.R., Lyasotski, I.V., Podurets, A.M. and Sanches-Bolinches, A.F. "Omega phase of zirconium: Formation under shock wave compression and stability at atmospheric pressure" *High Press. Res.* 4 475-477
- 1990, Kuwahara, M., Ioritani, N., Kambe, K., Taguchi, K., Saito, T., Igarashi, M., Shirai, S., Orikasa, S. and Takayama, K. "Acoustic cavitation bubbles in the kidney induced by focused shock waves in extracorporeal shock wave lithotripsy (ESWL)" *AIP Conf. Proc.* 208 173-178
- 1990, Labaune, C., Baldis, H.A., Fabre, E., Briand, F., Villeneuve, D.M. and Estabrook, K. "Backward and forward stimulated Raman scattering from thin foil targets with a 0.26 micron laser" *Phys. Fluids B* 2 166-170
- 1990, Lay, T., Ahrens, T.J., Olson, P., Smyth, J. and Loper, D. "Studies of the Earth's deep interior: Goals and trends" *Phys. Today* 43(10) 44-52
- 1990, Lebedev, M.A. "Influence of side unloading on the radial axial impulse distribution of the explosion of an explosive cylinder" *Combust. Explos. Shock Waves* 26 468-471
- 1990, Lee, R.J., Tasker, D.G., Forbes, J.W., Beard, B.C. and Sharma, J. "Shock ignition of an explosive due to electrostatic discharge (ESD)", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 729-732, publ. Amsterdam, Elsevier
- 1990, Lee, L.M., Hyndman, D.A., Reed, R.P. and Bauer, F. "PVDF applications in shock measurements", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 821-824, publ. Amsterdam, Elsevier
- 1990, Leiber, C.O. "Detonation model with spherical sources. C: Quasicontinuum approach; slow and low velocity detonation", in "Proc. 15th Int. Pyrotechnics Seminar", pp. 601-620, publ. Chicago, IIT Research Institute
- 1990, Lemar, E.R. and Forbes, J.W. "Hugoniot of amorphous metal ribbon Metglas 2605CO for stresses of 0-38 kbars" *J. Appl. Phys.* 67 7323-7328
- 1990, Lemberg, V.F., Psakhie, S.G. and Zolnikov, K.P. "Thermodynamic properties of simple metals under shock wave loading", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 75-78, publ. Amsterdam, Elsevier
- 1990, Lewis, A.G. "Design limitations on ultra-high velocity projectile launchers" *Int. J. Impact Engng* 10 185-196
- 1990, Litwiniszyn, A. "Rarefaction shock waves, outbursts and consequential coal damage" *Int. J. Rock Mech. Min. Sci. & Geomech. Abstr.* 27 535-540
- 1990, Liu, J., Chen, F. and Jia, Q. "The area effect in the shock initiation of explosives", in "Proc. 15th Int. Pyrotechnics Seminar", pp. 663-673, publ. Chicago, IIT Research Institute

- 1990, Longy, F. and Cagnoux, J. "Plate impact recovery experiments of ceramics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 441-444, publ. Amsterdam, Elsevier
- 1990, Lopatin, C.M., Bless, S.J. and Brar, N.S. "Dynamic unloading behavior of soda lime glass", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 633-636, publ. Amsterdam, Elsevier
- 1990, Loret, B. "Acceleration waves in elastic-plastic porous media: Interlacing and separation properties" *Int. J. Engng Sci.* 28 1315-1320
- 1990, Louro, L.H.L. and Meyers, M.A. "Stress-wave induced fragmentation in alumina-based ceramics", in "Shock Compression of Condensed Matter 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 465-468, publ. Amsterdam, Elsevier
- 1990, Lugovoi, P.Z. "Dynamics of shell structures under impulsive loading: Review" *Sov. Appl. Mech.* 26 715-731
- 1990, Lukash, V.A. and Markov, A.I. "Action of impact-wave treatment on the properties of synthetic diamonds" *Sov. J. Superhard Mater.* 12(5) 23-28
- 1990, Lukerchenko, N.N. "Comparison of two schemes of counter-collision of jets having different Bernoulli constants" *J. Appl. Mech. Tech. Phys.* 31 890-893
- 1990, Lush, P.A., Tomita, Y., Onodera, O., Takayama, K., Sanada, N., Kuwahara, M., Ioritani, N. and Kitayama, O. "Air bubble-shock wave interaction adjacent to gelatine surface " *AIP Conf. Proc.* 208 831-836
- 1990, Lykov, S.V., Itin, V.I., Mesyats, G.A., Proskurovskii, D.I. and Rotshtein, V.P. "Evolution of stress waves excited in metal by pulsed electron beam" *Sov. Phys. Dokl.* 35 154-156
- 1990, Majda, A.J. and Roytburd, V. "Numerical study of the mechanisms for initiation of reacting shock waves" *SIAM J. Sci. Stat. Comput.* 11 950-974
- 1990, Makarov, S.N. "Refinement of the equal-areas law for unsteady plane shock waves of moderate intensity" *J. Appl. Mech. Tech. Phys.* 31 675-679
- 1990, Mamalis, A.G., Gioftsidis, G.N. and Prohaszka, J. "Manufacturing of thin rectangular plates by explosive compaction of copper powder" *Proc. Inst Mech. Engrs Part B: J. Engng Manuf.* 204 237-247
- 1990, Mao, H.K., Wu, Y., Shu, J.F., Hu, J.Z., Hemley, R.J. and Cox, D.E. "High-pressure phase transition and equation of state of lead to 238 GPa" *Solid State Commun.* 74 1027-1029
- 1990, Marlin, P., Penazzi, L. and Bensoussan, P. "Laser-induced shock waves in aluminum with PVDF and quartz stress gauges", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 837-840, publ. Amsterdam, Elsevier

- 1990, Marsh, S.P., McQueen, R.G. and Tan, T.H. "Acceleration of metal plates", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 985-987, publ. Amsterdam, Elsevier
- 1990, Mashimo, T., Kodama, M., Kusaba, K., Fukuoka, K. and Syono, Y. "Hugoniot measurement study of the partially stabilized and stabilized-zirconia ceramics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 469-472, publ. Amsterdam, Elsevier
- 1990, Maslakov, A.V. "Hardness variation in steel as a result of loading by low-intensity plane shock wave" *Strength Mater.* 22 1042-1046
- 1990, Matsumoto, Y., Nishikawa, H., Ohara, T. and Ohashi, H. "Pressure wave phenomena in bubbly liquid" *AIP Conf. Proc.* 208 837-843
- 1990, Matsuo, H. and Fujiwara, K. "Explosive-driven cylindrical imploding shocks" *Phys. Fluids A* 2 266-273
- 1990, Maudlin, P.J., Davidson, R.F. and Henninger, R.J. "Implementation and assessment of the Mechanical Threshold Stress model using the EPIC2 and PINON computer codes", LA-11895-MS, Los Alamos, New Mexico, Los Alamos National Laboratory
- 1990, McGlaun, J.M., Thompson, S.L. and Elrick, M.G. "CTH: A three-dimensional shock wave physics code" *Int. J. Impact Engng* 10 351-360
- 1990, McLaren, D.J. and Goodfellow, W.D. "Geological and biological consequences of giant impacts" *Ann. Rev. Earth Planet. Sci.* 18 123-171
- 1990, McQueen, R.G. and Isaak, D.G. "Bromoform (CHBr<sub>3</sub>) – A very high-pressure shock-wave analyzer", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 125-128, publ. Amsterdam, Elsevier
- 1990, McQueen, R.G. and Isaak, D.G. "Characterizing windows for shock wave radiation studies" *J. Geophys. Res.* 95 21753-21765
- 1990, Meade, C. and Jeanloz, R. "The strength of Mantle silicates at high pressures and room temperature: Implications for the viscosity of the Mantle" *Nature* 348 533-535
- 1990, Meade, C. and Jeanloz, R. "Yield strength of alumina at high pressures" *Phys. Rev. B* 42 2532-2535
- 1990, Medvedev, S.P., Frolov, S.M. and Gelfand, B.E. "Attenuation of shock waves by screens of granular material" *J. Engng Phys.* 58 714-718
- 1990, Meisel, T., Koeberl, C. and Ford, R.J. "Geochemistry of Darwin impact glass and target rocks" *Geochim. Cosmochim. Acta* 54 1463-1474
- 1990, Merritt, C.D., Huston, A.L., Justus, B.L. and Campillo, A.J. "Ultrafast shock induced uniaxial strain in a liquid", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 667-670, publ. Amsterdam, Elsevier

- 1990, Meshcheryakov, Y.I., Savenkov, G.G. and Antroshchenko, S.A. "Crack resistance of materials with high-velocity impact" *Strength Mater.* 22 1733-1737
- 1990, Meshcheryakov, Y.I., Atroshenko, S.A. and Divakov, A.K. "Role of shock-induced particle distribution in processes of dynamic localization during backside spalling", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 449-452, publ. Amsterdam, Elsevier
- 1990, Meyer, L.W., Behler, F.J., Frank, K. and Magness, L.S. "Interdependencies between the dynamic mechanical properties and the ballistic behavior of materials", in "Proc. 12th Int. Symp. Ballistics", pp. 419-428, publ.
- 1990, Miller, A.R. "Explosive synthesis of a Y-Ba-Cu-O superconductor", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 603-606, publ. Amsterdam, Elsevier
- 1990, Milman, V.Y., Nemoshkalenko, V.V., Zhalko-Titarenko, A.V. and Antonov, V.N. "Equation of state of transition fcc metals up to 1 TPa", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 71-74, publ. Amsterdam, Elsevier
- 1990, Mintsev, V.B., Zaporoghets, Y.B. and Fortov, V.E. "Laser beam reflection from shock waves in xenon and silicon" *AIP Conf. Proc.* 208 549-557
- 1990, Mishin, G. and Yushchenkova, N. "Nonlinear processes in shock waves in gases", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 741-743, publ. Amsterdam, Elsevier
- 1990, Mitchell, A.C., Nellis, W.J., Holmes, N.C., Erskine, D.J., McCandless, P.C., Ravizza, D.L. and Cassidy, L.D. "Equation of state data of shock compressed liquid CO<sub>2</sub> and synthetic Uranus", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 95, publ. Amsterdam, Elsevier
- 1990, Miura, Y. "Impact evidence of shocked quartz grains in K/T boundary samples" *Meteoritics* 25 387-388
- 1990, Mogilevskii, M.A. and Bushnev, L.S. "Deformation structure development in Al and Cu single crystals on shock wave loading up to 50 and 100 GPa" *Combust. Explos. Shock Waves* 26 215-220
- 1990, Monaco, R., Bianchi, M.P. and Platkowski, T. "Shock waves formation by the discrete Boltzmann equation for binary gas mixtures" *Acta Mech.* 84 175-184
- 1990, Montierth, L.M. and Morse, R.L. "Stationary flow model of ablatively imploded spherical shells" *Phys. Fluids B* 2 353-370
- 1990, Moore, L.M. and Graham, R.A. "Response of standardized PVDF piezoelectric polymer gauges to direct shock pressures between 8 and 32 GPa", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 813-816, publ. Amsterdam, Elsevier

- 1990, Moran, B. and Goldwire Jr., H.C. "Effect of source modelling on the inferred yield from an underground nuclear explosion", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 645-647, publ. Amsterdam, Elsevier
- 1990, Morris, C.E., Loughran, E.D., Mortensen, G.F., Gray III, G.T. and Shaw, M.S. "Shock induced dissociation of polyethylene", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 687-690, publ. Amsterdam, Elsevier
- 1990, Müller, M. "Comparison of Dornier lithotripters: Measurement of shock wave fields and fragmentation effectiveness" Biomed. Tech. 35 250-262
- 1990, Mullin, S.A., Anderson Jr., C.E. and Wilbeck, J.S. "Dissimilar material scaling relationships for hypervelocity impact", DNA-TR-89-112, Southwest Research Institute
- 1990, Murr, L.E., Pradhan-Advani, M., Niou, C.S. and Schoenlein, L.H. "Correlating critical process parameters and microstructures in explosively fabricated ceramic/metal matrix superconductors", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 587-590, publ. Amsterdam, Elsevier
- 1990, Murr, L.E. and Niou, C.S. "Thermal recovery in shock-wave modified copper oxide superconductors" J. Mater. Sci. Letts 9 1103-1105
- 1990, Murr, L.E. and Niou, C.S. "Comparison of bulk DC and microwave surface resistance of explosively fabricated Y-Ba-Cu-O and Bi-Pb-Sr-Ca-Cu-O metal matrix composite superconductors" Supercond. Sci. Technol. 3 173-179
- 1990, Murr, L.E., Pradhanadvani, M., Niou, C.S. and Schoenlein, L.H. "Shock wave induced degradation of superconductivity and localized lattice defects in explosively fabricated  $\text{YBa}_2\text{Cu}_3\text{O}_7$ " Solid State Commun. 73 695-700
- 1990, Murr, L.E., Niou, C.S., Pradhanadvani, M. and Schoenlein, L.H. "Shock induced degradation of superconductivity and its recovery after heat treatment of explosively fabricated Y-Ba-Cu-O and Bi-Pb-Sr-Ca-Cu-O", in "High Temperature Superconducting Compounds II", ed. S.H. Whang, A. Dasgupta and R. Laibowitz, pp. 241-262, publ. Warrendale, Pennsylvania, Minerals, Metals and Materials Society
- 1990, Myasnikov, V.P., Roshchin, A.B. and Truskinovskii, L.M. "Structure of the isothermal shock in a weakly nonlocally relaxing compressible medium" Sov. Phys. Dokl. 35 342-344
- 1990, Nabatov, S.S., Shubitidze, S.O. and Yakushev, V.V. "Use of the thermo-EMF phenomenon in semiconductors to study exothermal processes in preservation ampuls" Combust. Explos. Shock Waves 26 732-734
- 1990, Nakoryakov, V.E., Pokusaev, B.G., Pribaturin, N.A. and Mullyadzhyanov, I.I. "Breakup of a gas slug under impact loading" Sov. Phys. Dokl. 35 328-330



- 1990, Negreskul, S.I., Psakhie, S.G. and Korostelev, S.Y. "The simulation of explosive compaction of powders by the element dynamics method", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 233-236, publ. Amsterdam, Elsevier
- 1990, Nellis, W.J., Koch, R., Davidson, H., Hunter, J.W., Brocius, W.F., Marshall, A. and Geballe, T.H. "Micron thin Nb films recovered from Mbar shock pressures", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 543-546, publ. Amsterdam, Elsevier
- 1990, Nellis, W.J. and Yoo, C.S. "Issues concerning shock temperature measurements of iron and other metals" J. Geophys. Res. 95 21749-21752
- 1990, Nemes, J.A. and Eftis, J. "Use of viscoplastic constitutive theory for simulating spallation thresholds", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 369-372, publ. Amsterdam, Elsevier
- 1990, Nemes, J.A., Eftis, J. and Randles, P.W. "Viscoplastic constitutive modeling of high strain-rate deformation, material damage, and spall fracture" Trans. ASME: J. Appl. Mech. 57 282-291
- 1990, Nesterenko, V.F. "The modifications of superconducting properties of Y-Ba-Cu-O and Bi-Sr-Ca-Cu-O using shock waves", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 553-558, publ. Amsterdam, Elsevier
- 1990, Nesterenko, V.F., Pershin, S.A., Lazaradi, A.N., Afanasenko, S.A., Yefremova, P.I., Amitin, E.B., Bezverkhii, P.P., Voronin, A.N. and Starikov, M.A. "Shock wave working of high  $T_c$  superconductors" High Press. Res. 5 832-834
- 1990, Nesterenko, V.F. and Lazaradi, A.N. "Regimes of shock wave compaction of granular materials" High Press. Res. 5 835-837
- 1990, Neubauer, A., Schmicker, H. and Schmidt, E. "Investigations to the influence of temperature at explosive sheet metal forming (in German)" Ann. CIRP 39 257-261
- 1990, Newlander, C.D., Stone, S.F. and Burns, J.B. "Measurement and analysis of pulsed laser generated stress waves in epoxy and PMMA", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 209-212, publ. Amsterdam, Elsevier
- 1990, Ng, A., da Silva, L., Godwal, B.K., Chiu, G., Cottet, F., Richardson, M.C., Jaanimagi, P.A. and Lee, Y.T. "K-shell photoabsorption edge spectroscopy in shock compressed plasmas", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 905-908, publ. Amsterdam, Elsevier
- 1990, Ni, A.L. and Fortov, V.E. "The equations of motion of condensed media with continually kinetic fracture" J. Appl. Math. Mech. 54 554-559

- 1990, Nicholas, T. and Recht, R.F. "Introduction to impact phenomena", in "High Velocity Impact Dynamics", ed. J.A. Zukas, pp. 1-64, publ. New York, John Wiley & Sons Inc.
- 1990, Nicholas, T. and Rajendran, A.M. "Material characterization at high strain rates", in "High Velocity Impact Dynamics", ed. J.A. Zukas, pp. 127-296, publ. New York, John Wiley & Sons Inc.
- 1990, Nicolaysen, L.O. and Ferguson, J. "Cryptoexplosion structure, shock deformation and siderophile concentration related to explosive venting of fluids associated with alkaline ultramafic magmas" *Tectonophysics* 171 303-335
- 1990, Novikov, N.N., Tsitsiliano, A.D. and Sizontov, V.M. "Development of plastic microdeformation in monocrystalline silicon induced by laser pulses of millisecond duration" *Sov. Phys. J.* 33 533-534
- 1990, O'Donoghue, P.E., Friesenhahn, G.J., Anderson Jr., C.E. and Parr, C.H. "Anisotropic model development for shock wave propagation computer programs", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 181-184, publ. Amsterdam, Elsevier
- 1990, Odstrcil, D. "A new optimized FCT algorithm for shock-wave problems" *J. Comput. Phys.* 91 71-93
- 1990, Oh, K.-H. and Persson, P.-A. "Full range Hugoniot equation of state for porous materials", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 105-108, publ. Amsterdam, Elsevier
- 1990, Oh, K.-H. "Graphical construction of P-U<sub>p</sub> porous Hugoniots from solid Hugoniot curve", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 109-112, publ. Amsterdam, Elsevier
- 1990, Ohanessian, H., Gonnard, P. and Troccaz, M. "Stabilization by double multivalent substitution of the characteristics of shocked ceramics" *Mater. Res. Bull.* 25 1049-1056
- 1990, Oinuma, S., Tanaka, K., Iida, M., Nakayama, Y. and Matsunaga, T. "Diamonds recovered from detonation products", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 705-708, publ. Amsterdam, Elsevier
- 1990, Okano, O., Nakamura, N. and Nagao, K. "Thermal history of the shock-melted Antarctic LL-chondrites from the Yamato-79 collection" *Geochim. Cosmochim. Acta* 54 3509-3523
- 1990, Olson, T.S. and Hiscock, W.A. "Plane steady shock waves in Israel-Stewart fluids" *Ann. Phys.* 204 331-350

- 1990, Osher, J.E., Chau, H.H., Gathers, G.R. and Weingart, R.C. "Characteristics of flyer impact for one-dimensional shock-wave study applications", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 963-966, publ. Amsterdam, Elsevier
- 1990, Ovidko, I.A. "On excited state of solids under shock wave deformation" Mater. Sci. Engng A 128 L5-L7
- 1990, Owens, F.J. and Iqbal, Z. "Microwave absorption measurement of flux trapping in shocked processed high temperature superconductor  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$ ", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 599-601, publ. Amsterdam, Elsevier
- 1990, Page, N.W., Killen, P.D. and St John, D.H. "Sintering enhancement in dynamically compacted commercial iron powders" Mater. Sci. Engng A 130 231-240
- 1990, Paisley, D.L. "Laser-driven miniature flyer plates for shock initiation of secondary explosives", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 733-736, publ. Amsterdam, Elsevier
- 1990, Paisley, D.L., Montoya, N.I., Stahl, D.B. and Garcia, I.A. "Interferometry, streak photography, and stereo photography of laser-driven miniature flying plates" Proc. SPIE 1358 760-765
- 1990, Palamarchuk, B.I. and Malakhov, A.T. "Shock-wave damping in a foam after a condensed-substance explosion" Combust. Explos. Shock Waves 26 753-760
- 1990, Panin, V.E., Meshcheryakov, Y.I., Elsukova, T.F., Divakov, A.K., Psakhie, S.G. and Myshlyaev, M.M. "Noncrystallographic structural deformation levels in strongly excited systems" Sov. Phys. J. 33 180-190
- 1990, Park, M.K., Oshima, S. and Yamane, R. "Oscillation of a circular shock wave" JSME Int. J. Ser. II 33 208-215
- 1990, Parker, J.V. "Prototype teseting for a hybrid gas-gun railgin device", in "Megagauss Fields and Pulsed Power Systems", ed. V.M. Titov and G.A. Shvetsov, pp. 782-788, publ. Commack, Nova Science Publishers
- 1990, Partom, Y. "Understanding the Swegle-Grady ( $d\epsilon/dt$  goes as  $\sigma^4$ ) relation", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 317-319, publ. Amsterdam, Elsevier
- 1990, Pavlovskii, M.N. and Komissarov, V.V. "Polymorphic transitions in tin in shock compression and dilatation waves" Sov. Phys. JETP 71 981-982
- 1990, Perez, M. "The 'MIVAR': A ramp-wave generator material fabricated by the plasma spray technique", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 751-754, publ. Amsterdam, Elsevier

- 1990, Persson, P.A., Ward, R. and Thadhani, N.N. "Shock induced reaction synthesis (SRS) assisted compaction of ceramics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 539-542, publ. Amsterdam, Elsevier
- 1990, Persson, P.-A. "Composite energetics", in "Proc. 15th Int. Pyrotechnics Seminar", pp. 757-768, publ. Chicago, IIT Research Institute
- 1990, Petit, J. and Hereil, P.L. "Characterization of recovered shocked Armco iron", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 397-400, publ. Amsterdam, Elsevier
- 1990, Petrov, E.A., Sakovich, G.V. and Brylyakov, P.M. "Conditions for preserving diamonds when produced by explosion" Sov. Phys. Dokl. 35 765-766
- 1990, Piechór, K. "A discrete kinetic model admitting compression and expansion shock waves" Arch. Mech. 42 87-107
- 1990, Podurets, M.A., Simakov, G.V. and Trunin, R.F. "Stishovite transition to a denser phase" Phys. Solid Earth 26 295-300
- 1990, Polanskey, C. and Ahrens, T.J. "Impact spallation experiments: Fracture patterns and spall velocities" Icarus 87 140-155
- 1990, Psakhie, S.G., Korostelev, S.Y. and Vorobyov, V.I. "Formation of nanocrystalline structure by shock wave propagation through amorphous materials", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 157-159, publ. Amsterdam, Elsevier
- 1990, Rabin, B.H., Korth, G.E. and Williamson, R.L. "Fabrication of titanium carbide-alumina composites by combustion synthesis and subsequent dynamic consolidation" J. Amer. Ceram. Soc. 73 2156-2157
- 1990, Radousky, H.B., Mitchell, A.C. and Nellis, W.J. "Shock temperature measurements of planetary ices: NH<sub>3</sub>, CH<sub>4</sub>, and 'synthetic Uranus'" J. Appl. Phys. 93 8235-8239
- 1990, Raiser, G., Clifton, R.J. and Ortiz, M. "A soft-recovery plate impact experiment for studying microcracking in ceramics" Mech. Mater. 10 43-58
- 1990, Rajendran, A.M., Diitenberger, M.A. and Grove, D.J. "Results from the recently developed dynamic failure model", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 373-376, publ. Amsterdam, Elsevier
- 1990, Rajendran, A.M., Brar, N.S. and Khobaib, M. "Effects of dynamic pre-strain on the subsequent tensile flow stress", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 401-404, publ. Amsterdam, Elsevier
- 1990, Ranga Rao, M.P. and Ramu, A. "Study of shock propagation due to impact", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 971-974, publ. Amsterdam, Elsevier

- 1990, Rasky, D.J. and McHenry, M.R. "Construction of porous Hugoniot from solid material properties", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 101-104, publ. Amsterdam, Elsevier
- 1990, Razorenov, S.V., Kanel, G.I. and Fortov, V.E. "Impact strength of copper single crystals" *Sov. Phys. Dokl.* 35 976-977
- 1990, Ree, F.H. and Calef, D.F. "Theoretical Hugoniot of liquid hydrogen fluoride", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 87-90, publ. Amsterdam, Elsevier
- 1990, Reed, R.P., Graham, R.A., Moore, L.M., Lee, L.M., Fogelson, D.J. and Bauer, F. "The Sandia standard for PVDF shock sensors", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 825-828, publ. Amsterdam, Elsevier
- 1990, Reimold, W.U. "The controversial microdeformations in quartz from the Vredefort structure, South Africa: A discussion" *South African J. Geol.* 93 645-663
- 1990, Rein, M. and Meier, G.E.A. "On the influence of different parameters on heterogeneous shock cavitation" *J. Acoust. Soc. Amer.* 88 1921-1928
- 1990, Rein, M. and Meier, G.E.A. "On the dynamics of heterogeneous shock cavitation" *Acustica* 71 1-13
- 1990, Renlund, A.M. and Trott, W.M. "Raman spectroscopic studies of shock-compressed nitromethane and nitromethane-d<sub>3</sub>", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 875-878, publ. Amsterdam, Elsevier
- 1990, Ress, D., Suter, L., Gabl, E.F. and Failor, B.H. "Plasma evolution from laser-driven gold disks. 2: Computational design and analysis" *Phys. Fluids B* 2 2448-2455
- 1990, Rhodes, C.G., Vassiliou, M.S., Mitchell, M.R. and Spurling, R.A. "Matrix/reinforcement interactions in shock-wave consolidated titanium aluminide reinforced with SiC" *Metall. Trans. A* 21 1589-1593
- 1990, Roberts, T.W. "The behavior of flux difference splitting schemes near slowly moving shock-waves" *J. Comput. Phys.* 90 141-160
- 1990, Roedder, E. "Discussion of 'Anomalous quartz from the Roter-Kamm impact crater, Namibia: Evidence for post-impact hydrothermal activity'" *Geochim. Cosmochim. Acta* 54 3247-3248
- 1990, Rogers, W.P. and Nemat-Nasser, S. "Transformation plasticity at high strain rate in magnesia-partially-stabilized zirconia" *J. Amer. Ceram. Soc.* 73 136-139
- 1990, Romain, J.P. and Darquey, P. "Shock waves and acceleration of thin foils by laser pulses in confined plasma interaction" *J. Appl. Phys.* 68 1926-1928

- 1990, Rosenberg, Z., Bless, S.J. and Brar, N.S. "On the influence of the loss of shear strength on the ballistic performance of brittle solids" *Int. J. Impact Engng* 9 45-49
- 1990, Rosenberg, Z., Brar, N.S. and Bless, S.J. "Determination of the strength of shock loaded ceramics using double impact techniques", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 385-388, publ. Amsterdam, Elsevier
- 1990, Rosenberg, G. and Curran, D.R. "Two dimensional compression shock waves generated by plate impact techniques", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 747-750, publ. Amsterdam, Elsevier
- 1990, Ross, M. "High pressure studies of planetary matter" *High Press. Res.* 5 683-685
- 1990, Ross, M., Young, D. and Grover, R. "Theory of the iron phase diagram at earth-core conditions" *J. Geophys. Res.* 95 21713-21717
- 1990, Rottler, J.S. "Radiation diffusion in the three-dimensional radiation-hydrodynamics code CTH", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 193-196, publ. Amsterdam, Elsevier
- 1990, Rubin, M.B. "Efficient time integration of a viscoplastic model for shock waves" *J. Appl. Phys.* 68 1356-1358
- 1990, Rubin, M.B. "Analysis of weak shocks in 6061-T6 aluminum", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 321-328, publ. Amsterdam, Elsevier
- 1990, Rubin, M.B. "Elastic-viscoplastic model for large deformation of soils" *ASCE: J. Engng Mech.* 116 1995-2015
- 1990, Ruggieri, T., Muracchini, A. and Seccia, L. "Shock waves and second sound in a rigid heat conductor: A critical temperature for NaF and Bi" *Phys. Rev. Letts* 64 2640-2643
- 1990, Ruggieri, T. "Shock waves and second sound in crystals of NaF and bismuth at low temperature" *Mod. Phys. Letts B* 4 945-947
- 1990, Russo, G. "Some remarks on the stability of shock waves" *Meccanica* 25 83-91
- 1990, Ryan, N.D. and McQueen, H.J. "Comparison of dynamic softening in 301, 304, 316, and 317 stainless steels" *High Temp. Technol.* 8 185-200
- 1990, Sadovoi, A.A., Kozyrev, A.A. and Chulkov, N.M. "Assessment of the parameters of the visco-plastic mechanism of 'hot-spot' formation behind the shock wave front" *Sov. J. Chem. Phys.* 7 178-184

- 1990, Samara, G.A. "The effects of pressure on the  $\beta$  molecular relaxation process in polyvinylidene fluoride", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 691-694, publ. Amsterdam, Elsevier
- 1990, Sarracino, R.S. and Brinkmann, J.R. "The modelling of shock effects in blasthole liner experiments", in "Proc. Third Int. Symp. on Rock Fragmentation by Blasting", pp. 199-203, publ. Parkville, Victoria, Australia, The Australasian Institute of Mining and Metallurgy
- 1990, Savenko, G.G., Meshcheryakov, Y.I., Vasilkov, V.B. and Cheryshenko, A.I. "Grain vibrations and development of the turbulent nature of plastic deformation during high-velocity interaction of solid bodies" *Combust. Explos. Shock Waves* 26 585-589
- 1990, Sawai, S. and Kondo, K.-I. "Essential factors for shock compaction of diamond composites" *J. Amer. Ceram. Soc.* 73 2428-2434
- 1990, Scharer, U. and Deutsch, A. "Isotope systematics and shock wave metamorphism. 2: U-Pb and Rb-Sr in naturally shocked rocks - The Haughton impact structure, Canada" *Geochim. Cosmochim. Acta* 54 3435-3447
- 1990, Schmidt, S.C., Johnson, J.N. and Davidson, L.W., Eds. "Shock Compression of Condensed Matter - 1989", publ. Amsterdam, North Holland
- 1990, Schmidt, S.C., Moore, D.S., Shaw, M.S. and Johnson, J.D. "Coherent anti-Stokes Raman spectroscopy of shock-compressed liquid oxygen", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 879-882, publ. Amsterdam, Elsevier
- 1990, Seaman, C.L., Early, E.A., Maple, M.B., Nellis, W.J., Holt, J.B., Kamegai, M. and Smith, G.S. "Superconducting and microstructural properties of shock compacted high  $T_c$  oxide powders", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 571-574, publ. Amsterdam, Elsevier
- 1990, Seaman, C.L., Weir, S.T., Early, E.A., Maple, M.B., Nellis, W.J., McCandless, P.C. and Brocius, W.F. "Crystallographically oriented superconducting  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$  by shock compaction of prealigned powder" *Appl. Phys. Letts* 57 93-95
- 1990, Sekine, T. "Shock transformation in boron nitride", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 511-514, publ. Amsterdam, Elsevier
- 1990, Seshadri, R. and Na, T.Y. "Impulsive impact of nonlinear elastic rods: Similarity solutions" *Arch. Mech.* 42 253-260
- 1990, Shaner, J.W. "Role of d-electrons in phase transitions and thermodynamics", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 121-124, publ. Amsterdam, Elsevier

- 1990, Sharma, S.M. and Gupta, Y.M. "Relating the ruby R-line spectra to deformation under shock and hydrostatic loading", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 887-892, publ. Amsterdam, Elsevier
- 1990, Sheffield, S.A. and Alcon, R.R. "Shock induced reaction in several liquids", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 683-686, publ. Amsterdam, Elsevier
- 1990, Shen, Y. and Drugan, W.J. "Constraints on moving strong discontinuity surfaces in dynamic plane-stress or plane-strain deformations of stable elastic-ideally plastic materials" *Trans. ASME: J. Appl. Mech.* 57 569-576
- 1990, Shen, X.A. and Gupta, Y.M. "Time-resolved luminescence measurements in ruby shocked along the crystal a-axis", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 893-895, publ. Amsterdam, Elsevier
- 1990, Simakov, G.V. and Trunin, R.F. "Shockwave compression of ultraporous silica" *Phys. Solid Earth* 26 952-956
- 1990, Simonov, V.A. "Shape of the lower boundary of the region for explosive welding" *Combust. Explos. Shock Waves* 26 492-495
- 1990, Slobodskoi, V.Y., Sobolev, V.V. and Baranov, P.N. "Diamond crystallization mechanisms" *Combust. Explos. Shock Waves* 26 362-365
- 1990, Smoller, J.A., Temple, J.B. and Xin, Z.P. "Instability of rarefaction shocks in systems of conservation laws" *Arch. Ration. Mech. Anal.* 112 63-81
- 1990, Song, I. and Thadhani, N.N. "Effects of shock processing parameters on synthesis of nickel aluminides", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 499-502, publ. Amsterdam, Elsevier
- 1990, Soulard, L. and Bauer, F. "Applications of standardized PVDF shock gauges for shock pressure measurements in explosives", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 817-820, publ. Amsterdam, Elsevier
- 1990, Soulard, L. "Etude du monocristal de pentrite soumis à un choc plan", PhD thesis, Univ. of Haute Alsace, France
- 1990, Staudhammer, K.P. "Temperature effects in shock consolidation of powders", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 519-522, publ. Amsterdam, Elsevier
- 1990, Staudhammer, K.P. and Murr, L.E. "Dynamic consolidation of cylinders by oblique shock loading" *J. Mater. Sci.* 25 2287-2298
- 1990, Steinberg, D.J. "A rate dependent constitutive model for beryllium", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 309-312, publ. Amsterdam, Elsevier



- 1990, Steinberg, D. "Computer studies of the dynamic strength of ceramics", UCRL-ID-106004, Lawrence Livermore National Laboratory
- 1990, Stulov, A.S. "Propagation of a compression shock with a time-invariant waveform in a nonlinear standard viscoelastic medium" *Sov. Phys. Acoust.* 36 604-606
- 1990, Suliciu, I. "On modelling phase transitions by means of rate-type constitutive equations. Shock wave structure" *Int. J. Engng Sci.* 28 829-842
- 1990, Sutherland, G.T. "Multiple stress-time profiles in the Navy explosive PBXN-110 (PBXW-113)", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 721-724, publ. Amsterdam, Elsevier
- 1990, Svendsen, B. and Ahrens, T.J. "Shock-induced temperatures of  $\text{CaMgSi}_2\text{O}_6$ " *J. Geophys. Res.* 95 6943-6953
- 1990, Sweatt, W.C., Stanton, P.L. and Crump Jr., O.B. "Simplified VISAR system", SAND90-2419C, Sandia National Laboratory
- 1990, Swegle, J.W. "Irreversible phase transitions and wave propagation in silicate geologic materials" *J. Appl. Phys.* 68 1563-1579
- 1990, Swegle, J.W. "Irreversible phase transitions and wave propagation in silicate geologic materials", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 147-150, publ. Amsterdam, Elsevier
- 1990, Swift, R.P. "Shock attenuation in saturated rock using an effective stress model", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 641-644, publ. Amsterdam, Elsevier
- 1990, Syono, Y., Nagoshi, M., Kikuchi, M., Tokiwa, A., Aoyagi, E., Suzuki, T., Kusaba, K. and Fukuoka, K. "Shock loading effects on high  $T_c$  superconductor Bi-Sr-Ca-Cu-O", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 579-582, publ. Amsterdam, Elsevier
- 1990, Tabak, M., Munro, D.H. and Lindl, J.D. "Hydrodynamic stability and the direct drive approach to laser fusion" *Phys. Fluids B* 2 1007-1014
- 1990, Takashima, K., Tonda, H., Nishida, M., Hagino, S., Suzuki, M. and Takeshita, T. "Preparation of oxide superconducting coils by explosive compaction", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 591-594, publ. Amsterdam, Elsevier
- 1990, Takayama, K., Saito, K., Obara, T. and Kameshima, N. "High pressure generation by underwater shock wave focusing in an ellipsoidal cavity", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 775-778, publ. Amsterdam, Elsevier
- 1990, Takayama, K., Saito, K., Obara, T. and Kameshima, N. "Underwater shock wave focusing in an ellipsoidal cavity" *AIP Conf. Proc.* 208 137-142

- 1990, Takeya, H., Takei, H., Jang, W.-J., Syono, Y., Hikuchi, M. and Kusaba, K. "Shock induced changes in  $\text{La}_2\text{CuO}_4$ ,  $\text{La}_2\text{NiO}_4$ ,  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  and  $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$  single crystals" *Jpn. J. Appl. Phys.* 29 1252-1256
- 1990, Tan, H. and Ahrens, T.J. "Shock induced polymorphic transition in quartz, carbon, and boron nitride" *J. Appl. Phys.* 67 217-224
- 1990, Tan, H. and Ahrens, T.J. "Shock temperature measurements for metals" *High Press. Res.* 2 159-182
- 1990, Tao, W.C., Tarver, C.M., Breithaupt, D.R. and Ornellas, D.L. "Understanding composite explosive energetics. 2: Particle size effects and reaction modelling development", in "Proc. 27th JANNAF Combustion Subcommittee Meeting. Vol. 3", ed. M.T. Gannaway, pp. 367-377, publ. Columbia, MD, Chemical Propulsion Information Agency
- 1990, Tarver, C.M. "Modeling shock initiation and detonation divergence tests on TATB-based explosives" *Propell. Explos. Pyrotech.* 15 132-142
- 1990, Tasi, J. and Whitten, J.L. "Influence of surface impurity on impact response of lattices" *J. Appl. Phys.* 67 1397-1407
- 1990, Tattevin, H., Syono, Y., Kikuchi, M., Kusbae, K. and Velde, B. "Shock deformation of alpha quartz: Laboratory experiments and TEM investigation" *Eur. J. Mineral* 2 227-234
- 1990, Taylor, P.A. and Dodson, B.W. "Shock-induced atomic-scale structure in metals", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 165-168, publ. Amsterdam, Elsevier
- 1990, Taylor, P.A. and Dodson, B.W. "Propagating lattice instabilities in shock-loaded metals" *Phys. Rev. B* 42 1200-1204
- 1990, Testud-Giovanneschi, P., Alloncle, A.P. and Dufresne, D. "Collective effects of cavitation: Experimental study of bubble-bubble and bubble-shock wave interaction" *J. Appl. Phys.* 67 3560-3564
- 1990, Thadhani, N.N. "Shock induced chemical synthesis of intermetallic compounds", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 503-510, publ. Amsterdam, Elsevier
- 1990, Thakur, A.M., Thadani, N.N. and Schwarz, R.B. "Martensitic transformation in NiTi alloys induced by tensile stress pulses", in "Shock Compression of Condensed Matter – 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 139-142, publ. Amsterdam, Elsevier
- 1990, Thibault, P.A. and Ritzel, D.V. "Use of low-density explosives in shock-tube drivers", in "Proc. 17th Int. Symp. on Shock Waves and Shock Tubes", pp. 594-599, publ. New York, American Institute of Physics
- 1990, Thomas, T. and Bensussan, P. "Consolidation dynamique de poudre de cuivre" *Mémoires Etudes Scientifiques Revue Métallurgie* 87 5-12

- 1990, Titov, V.M., Anisichkin, V.F. and Malkov, I.Y. "Diamond synthesis from dynamically loaded organic matter", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 659-662, publ. Amsterdam, Elsevier
- 1990, Tokheim, R.E., Erlich, D.C. and Kobayashi, T. "Characterization of spall in Kevlar/Epoxy composite", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 473-476, publ. Amsterdam, Elsevier
- 1990, Tonks, D.L. and Johnson, J.N. "Shock wave evolution of the mechanical threshold stress in copper", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 333-336, publ. Amsterdam, Elsevier
- 1990, Trebinski, R., Trzcinski, W. and Wlodarczyk, E. "A method for determining detonation adiabat of explosives with admixture of inert additions" J. Tech. Phys. 31 35-50
- 1990, Trebinski, R., Trzcinski, W., Witkowski, W. and Wlodarczyk, E. "Analysis of the influence of polymorphous transformations on the detonation process of explosive mixtures with a substance undergoing a transformation" J. Tech. Phys. 31 129-154
- 1990, Trebinski, R. "Analysis of the compression process of a cylindrical sample by a pressure pulse moving at constant velocity along the side surface" J. Tech. Phys. 31 401-425
- 1990, Trott, W.M. and Meeks, K.D. "High power Nd:glass laser transmission through optical fibers and its use in the acceleration of thin foil targets" J. Appl. Phys. 67 3297-3301
- 1990, Trott, W.M. and Meeks, K.D. "Acceleration of thin foil targets using fiber-coupled optical pulses", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 997-1000, publ. Amsterdam, Elsevier
- 1990, Tyburczy, J.A., Krishnamurthy, R.V., Epstein, S. and Ahrens, T.J. "Impact induced devolatilization and hydrogen isotopic fractionation of serpentine: Implications for planetary accretion" Earth Planet. Sci. Letts 98 245-261
- 1990, Tyl, J. and Wlodarczyk, E. "Implosion of a cylindrical magnetohydrodynamic shock wave in a solid medium" J. Tech. Phys. 31 93-101
- 1990, Uchaev, A.Y., Novikov, S.A., Tsukerman, V.A., Bonyushkin, E.K., Zavada, N.I., Bagryanov, B.V., Trunin, I.R. and Yukina, N.A. "Anomalies of cleavage fracture of tungsten resulting from fast volumetric heating" Sov. Phys. Dokl. 35 91-92

- 1990, Venturini, E.L., Graham, R.A., Ginley, D.S. and Morosin, B. "Effects of shock modification on superconductivity in  $Tl_2Ca_2Ba_2Cu_3O_y$  and  $Bi_2CaSr_2Cu_2O_x$ ", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 583-586, publ. Amsterdam, Elsevier
- 1990, Vereshchagin, A.L., Sakovich, G.V., Brylyakov, P.M., Zolotukhina, I.I., Petrova, L.A. and Novoselov, N.N. "Structure of the diamond-like phase of carbon made by explosive synthesis" *Sov. Phys. Dokl.* 35 851-853
- 1990, Vereshchagin, A.L., Sakovich, G.V., Petrova, L.A., Novoselov, V.V. and Brylyakov, P.M. "Study of the chemical composition of the surface of ultradispersed diamond synthesized by detonation" *Sov. Phys. Dokl.* 35 917-919
- 1990, Vohra, Y.K. and Ruoff, A.L. "Static compression of metals Mo, Pb, and Pt to 272 GPa: Comparison with shock data" *Phys. Rev. B* 42 8651-8654
- 1990, Volkov, K.V., Danilenko, V.V. and Elin, V.I. "Synthesis of diamond from the carbon in the detonation products of explosives" *Combust. Explos. Shock Waves* 26 366-369
- 1990, von Engelhardt, W. "Distribution, petrography, and shock metamorphism of the ejecta of the Ries Crater in Germany: A review" *Tectonophysics* 171 259-273
- 1990, Vorobev, O.Y., Ni, A.L. and Fortov, V.E. "Generation of high pressure in plane shock waves produced by high energy ion beams" *Sov. Tech. Phys. Letts* 16 880-881
- 1990, Vorobev, O.Y., Demidov, B.A., Efremov, V.P., Rudakov, A.I., Ni, A.L., Morozov, P.V. and Fortov, V.E. "Generation of plane shock waves and acceleration of flyers by a high-current electron beam" *Sov. Tech. Phys. Letts* 16 882-883
- 1990, Voskoboinikov, I.M. "On conversions of hydrocarbons behind shock waves" *Sov. J. Chem. Phys.* 5 1102-1108
- 1990, Wackerle, J. and Stacy, H.L. "Shock-induced heating, phase transitions, and opacity in alkali halides", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 151-154, publ. Amsterdam, Elsevier
- 1990, Walker, F.E. "Calculation of detonation velocities from Hugoniot data" *Propell. Explos. Pyrotech.* 15 157-160
- 1990, Ward, R., Thadhani, N. and Persson, P.A. "Shock compression processing of high-performance ceramics", in "Metal & Ceramic Matrix Composites: Processing, Modeling and Mechanical Behavior", ed. R.B. Bhagat, A.H. Clauer, P. Kumar and A.M. Ritter, pp. 193-200, publ. Warrendale, PA, Minerals, Metals and Materials Society
- 1990, Wark, J.S., Riley, D., Woolsey, N.C., Keihn, G. and Whitlock, R.R. "Direct measurements of compressive and tensile strain during shock breakout by use of subnanosecond x-ray diffraction" *J. Appl. Phys.* 68 4531-4534

- 1990, Wark, J.S., Whitlock, R.R., Kiehn, G., Smith, R. and Lin, Z. "Simulation of transient x-ray diffraction from shocked crystals", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 901-904, publ. Amsterdam, Elsevier
- 1990, Warnes, R.H. and Tonks, D.L. "Measurement and analysis of 3 GPa shock wave profiles in annealed OFE copper", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 329-332, publ. Amsterdam, Elsevier
- 1990, Wei, T.-G. and Wyatt, R.E. "Semiclassical dynamics of shock wave propagation in molecular crystals: Application to the Morse lattice" *J. Phys.: Condens. Matter* 2 9787-9795
- 1990, Weir, S.T., Nellis, W.J., Kramer, M.J., Seaman, C.L., Early, E.A. and Maple, M.B. "Shock induced defects and flux pinning in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  + Ag composites", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 563-565, publ. Amsterdam, Elsevier
- 1990, Whitlock, R.R., Wark, J.S. and Kiehn, G. "Streaked X-ray diffraction from laser-shocked crystals", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 897-900, publ. Amsterdam, Elsevier
- 1990, Wieland, M. "Shock wave damage to coal mine delay detonators", in "Proc. 14th Symp. on Explosives and Pyrotechnics", paper 20, publ. Norristown, PA, Franklin Research Center
- 1990, Williams, Q. and Jeanloz, R. "Melting relations in the iron-sulfur system at ultra-high pressures: Implications for the thermal state of the Earth" *J. Geophys. Res.* 95 19299-19310
- 1990, Williamson, R.L. "Parametric studies of dynamic powder consolidation using a particle-level numerical model" *J. Appl. Phys.* 68 1287-1296
- 1990, Williamson, R.L. and Wright, R.N. "A particle-level numerical simulation of the dynamic consolidation of a metal matrix composite material", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 487-490, publ. Amsterdam, Elsevier
- 1990, Wixom, M.R. "Shock recovery experiments on high nitrogen content, high molecular weight compounds", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 523-526, publ. Amsterdam, Elsevier
- 1990, Wixom, M.W. "An electroluminescent fiber optic shock pressure sensor", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 845-848, publ. Amsterdam, Elsevier
- 1990, Wixom, M.R. "Chemical preparation and shock wave compression of carbon nitride precursors" *J. Amer. Ceram. Soc.* 73 1973-1978

- 1990, Wong, M.K.W. and Gupta, Y.M. "Response of lateral piezoresistance gauges in fused silica shocked to 60 kbar", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 829-832, publ. Amsterdam, Elsevier
- 1990, Xia, C. and Jin, Z. "On the evolution of microstructure and diffusion paths in the titanium-steel explosion weld interface during heat treatment" *J. Less-Common Metals* 162 315-322
- 1990, Yadav, H.S., Patil, B.T. and Haldar, G. "Study of explosive and shock parameters for compaction of powders" *Propell. Explos. Pyrotech.* 15 194-200
- 1990, Yakub, E.S. "Equation of state of shock compressed liquid hydrogen" *High Temp.* 28 490-497
- 1990, Yamamoto, H. and Sawaoka, A.B. "Microstructure and superconducting critical temperature of dynamically consolidated  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  without post heat treatment", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 559-562, publ. Amsterdam, Elsevier
- 1990, Yang, G., Tang, Z.P. and Zhou, G.-Q. "Non-Fourier thermoelastic response of metal induced by lasers", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 201-204, publ. Amsterdam, Elsevier
- 1990, Yeshchenko, R.N., Taluts, G.G., Borychev, A.N., Borisov, A.B., Teplov, V.A., Muryshev, Y.Y. and Sinitsyn, A.V. "Features of the deformation of iron-nickel alloys exposed to a shock wave" *Phys. Metals Metallog.* 70(1) 161-168
- 1990, Yoo, C.S., Gupta, Y.M. and Duvall, G.E. "Electronic and chemical changes of carbon disulfide under shock compression", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 675-682, publ. Amsterdam, Elsevier
- 1990, Yoo, C.S. and Gupta, Y.M. "Time resolved absorption changes of thin  $\text{CS}_2$  samples under shock compression: electronic and chemical implications" *J. Phys. Chem.* 94 2857-2865
- 1990, Yoshida, T. and Takayama, K. "Interaction of liquid droplets with planar shock waves" *Trans. ASME: J. Fluids Engng* 112 481-486
- 1990, Yoshimoto, M., Koinuma, H., Yamamoto, H. and Sawaoka, A.B. "Shock processing of Bi-Sr-Ca-Cu-O and Ti-Ba-Ca-Cu-O superconductors" *J. Amer. Ceram. Soc.* 73 1791-1793
- 1990, Yu, L.H., Meyers, M.A. and Thadhani, N.N. "Reaction-assisted shock consolidation of RSR Ti-Al alloys" *J. Mater. Res.* 5 302-312

- 1990, Yun, S.-R., Sun, Y.-F., Chang, J.-Y. and Wu, F.-Y. "Experimental investigation of phase conversion of boron nitride under explosion", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 515-518, publ. Amsterdam, Elsevier
- 1990, Zaslanko, I.S., Frolov, S.M., Smirnov, V.N., Akhmedov, U.S. and Gelfand, B.E. "Acceleration of shock waves in medium with endothermal reaction" *Khim. Fiz.* 9 1128-1134
- 1990, Zhang, W.-P. and Lu, J.-D. "Mass ejection from shock loaded free surfaces of steel" *High Press. Res.* 5 838-841
- 1990, Zhang, K., Xi, J. and Gao, J. "Research on wave formation in multilayer explosive cladding", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 237-240, publ. Amsterdam, Elsevier
- 1990, Zhang, Y., Morosin, B., Graham, R.A., Hubbard, C.R. and Stewart, J.M. "Shock induced solid state reaction and phase transition: X-ray profile studies on shock modified  $\text{Fe}_3\text{O}_4$  and  $\text{ZrO}_2$  powders", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 535-538, publ. Amsterdam, Elsevier
- 1990, Zhdan, S.A. "Numerical modeling of the explosion of a high explosive charge in foam" *Combust. Explos. Shock Waves* 26 221-227
- 1990, Zhou, G.-Q., Tang, Z.P. and Yang, G. "Numerical study of laser-induced two-dimensional shock waves in metallic materials", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davison, pp. 205-208, publ. Amsterdam, Elsevier
- 1990, Zhugin, Y.N., Krupnikov, K.K. and Ovechkin, N.A. "Investigation of shocked graphite conversion into diamond based on electrical conductivity measurements" *Sov. J. Chem. Phys.* 6 2852-2857
- 1990, Zhukov, A.V. "Energy dissipation in stress waves at phase transformations" *Combust. Explos. Shock Waves* 26 743-745
- 1990, Zurek, A.K. and Follansbee, P.S. "Microstructural effects on spall fracture in 1008 steel", in "Shock Compression of Condensed Matter - 1989", ed. S.C. Schmidt, J.N. Johnson and L.W. Davidson, pp. 433-436, publ. Amsterdam, Elsevier
- 1990, Zurek, A.K., Follansbee, P.S. and Hack, J. "High strain-rate-induced cleavage fracture in mild carbon steel" *Metall. Trans. A* 21 431-439
- 1990, Zvorykin, L.O., Rumyantsev, B.V., Falchenko, V.M. and Filatov, A.V. "Residual strain effects in nickel transport into copper in a shock wave" *Phys. Metals* 9 715-716