

## Shock Physics Papers 2018

- Abeywardhana, J.A.M.M., Germann, T.C. and Ravelo, R. 2018 "Strain rate dependence of deformation twinning in tantalum" AIP Conf. Proc. 1979 050001
- Abrate, S. 2018 "Coatings for mitigating the effects of underwater shock waves on structures", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 321-335, (New York, Springer)
- Abu-Farsakh, H., Al-Qasir, I. and Qteish, A. 2018 "Fundamental properties and phase stability of B1 and B2 phases of MgO over a wide range of pressures and temperatures: A first-principles study" Comput. Mater. Sci. 154 159-168
- Adamenko, N.A. and Agafonova, G.V. 2018 "The effect of explosive treatment on the structure and thermomechanical properties of filled PTFE" Int. Polym. Sci. Technol. 45 39-42
- Agasty, A., Nolde, M., Krebs, H., Mücke, O., Theil, B. and Nächer, D. 2018 "Numerical simulations and field validation tests for shock waves propagation", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 425-430, (Pardubice, Czech Republic, University of Pardubice)
- Aglitskiy, Y., Velikovich, A.L., Karasik, M., Schmitt, A.J., Serlin, V., Weaver, J.L., Oh, J., Obenschain, S.P. and Cochrane, K.R. 2018 "Absolute Hugoniot measurements for CH foams in the 2-9 Mbar range" Phys. Plasmas 25 042705
- Agrawal, V. and Bhattacharya, K. 2018 "Impact induced depolarization of ferroelectric materials" J. Mech. Phys. Solids 115 142-166
- Alekseev, I.V., Kosareva, A.A., Kustova, E.V. and Nagnibeda, E.A. 2018 "Various continuum approaches for studying shock wave structure in carbon dioxide" AIP Conf. Proc. 1959 060001
- Aliverdiev, A.A., Batani, D., Benocci, R., Dezulian, R., Amirova, A.A., Ragimkhanov, G.B., Krousky, E., Ullschmied, J., Skala, J., Dudzak, R. and Jakubowska, K. 2018 "About laser shocks dynamics for complex focal spots and structured targets" J. Phys. Conf. Ser. 946 012013
- Amadou, N., de Resseguier, T., Dragon, A. and Brambrink, E. 2018 "Coupling between plasticity and phase transition in shock- and ramp-compressed single-crystal iron" Phys. Rev. B 98 024104
- Ameri, A.A.H., Escobedo-Diaz, J.P., Quadir, M.Z., Brown, A., Ashraf, M., Hutchison, W. and Hazell, P. 2018 "The effect of loading direction on the dynamic damage in lean duplex stainless steel 2101" AIP Conf. Proc. 1979 070002

- Ameri, A.A.H., Brown, A.D., Quadir, Z., Hazell, P.J., Logos, C. and Escobedo-Diaz, J.P. 2018 "Investigating the dynamic tensile response of lean Duplex stainless steel and the effects of radial waves using the recovered plate-impact experiment" EPJ Web Conferences 183 03012
- Ananov, S.Y., Yankovsky, B.D. and Dolgoborodov, A.Y. 2018 "The combustion of Al-CuO powder mixture under shock wave initiation of the reaction" J. Phys. Conf. Ser. 946 012054
- Anderson, W.W. 2018 "Properties of the dead zone due to the gas cushion effect in PBX 9502" AIP Conf. Proc. 1979 150001
- Anderson, P.E. 2018 "How and when metals react in high performance explosives" AIP Conf. Proc. 1979 150002
- Appleby-Thomas, G.J., Fitzmaurice, B., Hameed, A., Painter, J., Gibson, M., Wood, D.C., Hazael, R. and Hazell, P.J. 2018 "On differences in the equation-of-state for a selection of seven representative mammalian tissue analogue materials" J. Mech. Behav. Biomed. Mater. 77 586-593
- Aristova, E.Y., Aushev, A.A., Baranov, V.K., Belov, I.A., Balkov, S.A., Voronin, A.Y., Voronich, I.N., Garanin, R.V., Garanin, S.G., Gainullin, K.G., Golubinskii, A.G., Gorodnichev, A.V., Denisova, V.A., Derkach, V.N., Drozhzhin, V.S., Elicheva, I.A., Zhidkov, N.V., Ilkaev, R.I., Krayukhin, A.A., Leonov, A.G., Litvin, D.N., Makarov, K.N., Martynenko, A.S., Malinov, V.I., Misko, V.V., Rogachev, V.G., Rukavishnikov, A.N., Salatov, E.A., Skorochkin, Y.V., Smorchkov, G.Y., Stadnik, A.L., Starodubtsev, V.A., Starodubtsev, P.V., Sungatullin, R.R., Suslov, N.A., Sysoeva, T.I., Khatunkin, V.Y., Tsoi, E.S., Shubin, O.N. and Yufa, V.N. 2018 "Laser simulations of the destructive impact of nuclear explosions on hazardous asteroids" J. Exper. Theor. Phys. 126 132-145
- Armstrong, C., Rae, P., Tasker, D., Heatwole, E. and Broilo, B. 2018 "Inexpensive method of qualifying piezoresistive thin-film pressure gauge" AIP Conf. Proc. 1979 160001
- Aslam, T., Gustavsen, R., Whitworth, N., Menikoff, R., Tarver, C., Handley, C. and Bartram, B. 2018 "Shock, release and reshock of PBX 9502: Experiments and modeling" AIP Conf. Proc. 1979 100001
- Aslam, T.D. 2018 "Shock temperature dependent rate law for PBXs" J. Appl. Phys. 123 145901
- Atroshenko, S.A., Zubareva, A.N., Morozov, V.A., Savenkov, G.G. and Utkin, A.V. 2018 "Specific features of the response of cerium to pulsed actions" Phys. Solid State 60 238-243
- Aubert, B., Hebert, D., Rullier, J.-L., Lescoute, E., Videau, L. and Berthe, L. 2018 "2D characterization of the pressure generated by an intense laser pulse on an aluminum target" AIP Conf. Proc. 1979 160002

- Aubert, B., Hebert, D., Rullier, J.-L., Chevalier, J.-M., Berthe, L., Brambrink, E., Lescoute, E., Videau, L., Franzkowiak, J.-E., Jodar, B., Loison, D. and Nivard, M. 2018 "Numerical simulations of laser-driven cratering experiments into porous graphite" EPJ Web Conferences 183 01060
- Austin, R.A. 2018 "Elastic precursor wave decay in shock-compressed aluminum over a wide range of temperature" J. Appl. Phys. 123 035103
- Avdellidou, C., Delbo, M. and Fienga, A. 2018 "Exogenous origin of hydration on asteroid (16) Psyche: The role of hydrated asteroid families" Mon. Not. R. Astron. Soc. 475 3419-3428
- Badyukov, D.D., Bezaeva, N.S., Rochette, P., Gattacceca, J., Feinberg, J.M., Kars, M., Egli, R., Raitala, J. and Kuzina, D.M. 2018 "Experimental shock metamorphism of terrestrial basalts: Agglutinate-like particle formation, petrology, and magnetism" Meteor. Planet. Sci. 53 131-150
- Badziak, J., Kucharik, M. and Liska, R. 2018 "Generation of sub-gigabar-pressure shocks by a hyper-velocity impact in the collider driven by laser-induced cavity pressure" J. Phys. Conf. Ser. 959 012012
- Bai, Z. and Fan, Y. 2018 "Abnormal strain rate sensitivity driven by a unit dislocation-obstacle interaction in bcc iron" Phys. Rev. Letts 120 125504
- Bardy, S., Aubert, B., Bergara, T., Berthe, L., Ducouso, M., Ecault, R., Hébert, D., Lescoute, E., Malaise, F., Rouchausse, Y. and Videau, L. 2018 "Experimental implementation of shock waves propagation using multi-materials stacks: Application to bonded assemblies evaluation by laser adhesion test" AIP Conf. Proc. 1979 070003
- Barnes, C.W., Fernández, J.C., Hartsfield, T.M., Sandberg, R.L., Sheffield, R.L., Tapia, J.P. and Wang, Z. 2018 "Technology risk mitigation research and development for the matter-radiation interactions in extremes (MaRIE) project" AIP Conf. Proc. 1979 160003
- Barton, N.R., Rhee, M. and Brown, J.L. 2018 "Modeling the constitutive response of tantalum across experimental platforms" AIP Conf. Proc. 1979 070004
- Bartyczak, S., Edgerton, L. and Mock, W. 2018 "Response of polymers to low amplitude blast waves" AIP Conf. Proc. 1979 090001
- Bassett, W.P., Johnson, B.P. and Dlott, D.D. 2018 "Laser driven flyers for investigations of shock initiation of explosives" AIP Conf. Proc. 1979 150003
- Batra, R.C. 2018 "Damage and failure of blast-loaded fiber-reinforced composite laminates considering material and geometric nonlinearities", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 227-245, (New York, Springer)
- Batsanov, S.S. 2018 "Shock and Materials" (Berlin, Springer)
- Batsanov, S.S. 2018 "Effect of explosion in materials", in "Shock and Materials", pp. 1-152, (Berlin, Springer)

- Batsanov, S.S. 2018 "Detonation transformation in materials", in "Shock and Materials", pp. 153-195, (Berlin, Springer)
- Batsanov, S.S. 2018 "Laser-induced shock compression", in "Shock and Materials", pp. 197-201, (Berlin, Springer)
- Batsanov, S.S. 2018 "Impulse mechanical action", in "Shock and Materials", pp. 203-220, (Berlin, Springer)
- Batsanov, S.S. 2018 "Electric discharge in materials", in "Shock and Materials", pp. 221-238, (Berlin, Springer)
- Beason, M.T., Pauls, J.M., Gunduz, I.E., Rouvimov, S., Manukyan, K.V., Matous, K., Son, S.F. and Mukasyan, A. 2018 "Shock-induced reaction synthesis of cubic boron nitride" Appl. Phys. Letts 112 171903
- Behzadinasab, M., Vogler, T.J. and Foster, J.T. 2018 "Modeling perturbed shock wave decay in granular materials with intragranular fracture" AIP Conf. Proc. 1979 070005
- Bell, D.J., Routley, N.R., Whiteman, G. and Keightley, P.T. 2018 "The development of a smaller Asay foil diagnostic" AIP Conf. Proc. 1979 080001
- Bellitto, W.J., Melnik, M.I., Sherlock, M.H., Chang, J.C., O'Connor, J.H. and Mackey, J.A. 2018 "The microstructure characteristics of RDX and their effect on the detonation velocity" AIP Conf. Proc. 1979 100002
- Belov, G.V., Dyachkov, S.A., Levashov, P.R., Lomonosov, I.V., Minakov, D.V., Morozov, I.V., Sineva, M.S. and Smirnov, V.N. 2018 "The IVTANTHERMO online database for thermodynamic properties of individual substances with web interface" J. Phys. Conf. Ser. 946 012120
- Belyaev, D., Aleksandrov, A., Zuyev, Y., Kozlov, E., Svyatov, I. and Levi, C. 2018 "Structure of uranium-zirconium-molybdenum alloy shell after explosive loading" EPJ Web Conferences 183 03025
- Benedetti, L.R., Eggert, J.H., Kilkenny, J.D., Bradley, D.K., Bell, P.M., Palmer, N.E., Petre, R.B., Heidl, B.F., Rygg, J.R., Boehly, T.R., Collins, G.W. and Sorce, C. 2018 "Conceptual design for time-resolved X-ray diffraction in a single laser-driven compression experiment" AIP Conf. Proc. 1979 160004
- Bhowmick, M., Nissen, E.J., Matveev, S.M. and Dlott, D.D. 2018 "Studies in shocked nitromethane through high dynamic range spectroscopy" AIP Conf. Proc. 1979 100004
- Bhowmick, M., Nissen, E.J. and Dlott, D.D. 2018 "Detonation on a tabletop: Nitromethane with high time and space resolution" J. Appl. Phys. 124 075901
- Bidault, X. and Pineau, N. 2018 "Impact of surface energy on the shock properties of granular explosives" J. Chem. Phys. 148 034704
- Biss, M., Murphy, M. and Lieber, M. 2018 "Qualification of a multi-diagnostic detonator-output characterization procedure utilizing PMMA witness blocks" AIP Conf. Proc. 1979 160005

- Bjorgaard, J.A., Hammerberg, J. and Sheppard, D. 2018 "Density functional theory study of cerium deuterides" AIP Conf. Proc. 1979 080002
- Bogdanov, J., Bajic, Z., Mladenovic, V., Brzic, S. and Dimitrijevic, I. 2018 "Influence of charge diameter on detonation velocity for single and double base propellants", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 470-475, (Pardubice, Czech Republic, University of Pardubice)
- Bogdanova, Y.A., Gubin, S.A. and Maklashova, I.V. 2018 "Evaluation of thermodynamic properties of metals by a perturbation theory by example of aluminum" J. Phys. Conf. Ser. 946 012091
- Borodin, E.N., Gruzdkov, A.A., Mayer, A.E. and Selyutina, N.S. 2018 "Physical nature of strain rate sensitivity of metals and alloys at high strain rates" J. Phys. Conf. Ser. 991 012012
- Bourne, N.K., Jones, D., Fensin, S., Trujillo, C., Martinez, D. and Gray III, G.T. 2018 "On the dynamic tensile strength of an fcc metal" AIP Conf. Proc. 1979 070007
- Bowden, M. 2018 "A volumetric approach to shock initiation of HNS and PETN" AIP Conf. Proc. 1979 150004
- Bradley, P.A., Loomis, E.N., Merritt, E.C., Guzik, J.A., Denne, P.H. and Clark, T.T. 2018 "Experimental validation of thermodynamic mixture rules at extreme pressures and densities" Phys. Plasmas 25 012710
- Bragov, A.M., Igumnov, L.A., Konstantinov, A.Y. and Lomunov, A.K. 2018 "Investigation of the mechanical properties of organoplastic under shock wave loading conditions" J. Phys. Conf. Ser. 991 012013
- Braithwaite, C.H., Perry, J.I. and Taylor, N.E. 2018 "Shock and release behaviour of silica based granular materials" AIP Conf. Proc. 1979 110002
- Branch, B. and Jensen, B.J. 2018 "Dynamic X-ray diffraction to study the shock-induced  $\alpha$ - $\epsilon$  phase transition in iron" AIP Conf. Proc. 1979 040001
- Branicio, P.S., Zhang, J., Rino, J.P., Nakano, A., Kalia, R.K. and Vashishta, P. 2018 "Plane shock loading on mono- and nano-crystalline silicon carbide" Appl. Phys. Letts 112 111909
- Branicio, P.S., Zhang, J.Y., Rino, J.P., Nakano, A., Kalia, R.K. and Vashishta, P. 2018 "Shock-induced microstructural response of mono- and nanocrystalline SiC ceramics" J. Appl. Phys. 123 145902
- Brown, A.D., Ameri, A.H., Gregg, A., Austin, D.C., Escobedo, J.P., Hazell, P.J., East, D. and Quadir, M.Z. 2018 "Dynamic mechanical response of additive manufactured Ti6Al4V" AIP Conf. Proc. 1979 070008
- Brown, K.E., Myers, T.W., Snyder, C. and Clarke, S.A. 2018 "Laser initiation of iron-based photoactive explosives" AIP Conf. Proc. 1979 100008
- Buravova, S.N. and Petrov, E.V. 2018 "Acceleration of mass transfer under dynamic loading" Russ. J. Phys. Chem. B 12 120-128

- Burns, M.J., Gibson, L.L., Jones, J.D., Goodbody, A.E., Dattelbaum, D.M. and Gustavsen, R.L. 2018 "One dimensional shock initiation of hot isostatically pressed Composition B" AIP Conf. Proc. 1979 150007
- Burritt, R.R. and Francois, E.G. 2018 "Particle size effects on the thin pulse initiation of diaminoazoxyfurazan" AIP Conf. Proc. 1979 100009
- Buttler, W.T., Renner, D., Morris, C., Manzanares, R., Anderson, E.K., Goett III, J.J., Heidemann, J., Kalas, R.M., Llobet, A., Martinez, J.L., Medina Jr., P.V., Payton, J.R., Saunders, A., Schmidt, D.W., Tainter, A.M., Tupa, D., Vincent, S.W. and Vogan-McNeil, W. 2018 "Cavitation bubble interacting with a Richtmyer-Meshkov unstable sheet and spike" AIP Conf. Proc. 1979 080003
- Buzyurkin, A.E., Kraus, E.I. and Lukyanov, Y.L. 2018 "Explosive compaction of aluminum oxide modified by multiwall carbon nanotubes" J. Phys. Conf. Ser. 991 012015
- Callaghan, K. and Becker, R. 2018 "Examination of ductile spall failure through direct numerical simulation" AIP Conf. Proc. 1979 070010
- Canadinc, D., Uzer, B., Elmadagli, M. and Guner, F. 2018 "Nanotwin formation in high-manganese austenitic steels under explosive shock loading" Metall. Mater. Trans. A 49 1026-1030
- Cao, D., Boehly, T.R., Gregor, M.C., Polsin, D.N., Davis, A.K., Radha, P.B., Regan, S.P. and Goncharov, V.N. 2018 "Theoretical quantification of shock-timing sensitivities for direct-drive inertial confinement fusion implosions on OMEGA" Phys. Plasmas 25 052705
- Cao, X.X., Chen, J.X., Yu, Y. and Wu, Q. 2018 "An equation of state for abnormal expansion of shocked porous materials" J. Appl. Phys. 124 215903
- Cavosie, A.J., Timms, N.E., Erickson, T.M. and Koeberl, C. 2018 "New clues from Earth's most elusive impact crater: Evidence of reidite in Australasian tektites from Thailand" Geology 46 203-206
- Cavosie, A.J., Timms, N.E., Ferrière, L. and Rochette, P. 2018 "FRIGN zircon: The only terrestrial mineral diagnostic of high-pressure and high-temperature shock deformation" Geology 46 891-894
- Celliers, P.M., Millot, M., Brygoo, S., McWilliams, R.S., Fratanduono, D.E., Rygg, J.R., Goncharov, A.F., Loubeyre, P., Eggert, J.H., Peterson, J.L., Meezan, N.B., Le Pape, S., Collins, G.W., Jeanloz, R. and Hemley, R.J. 2018 "Insulator-metal transition in dense fluid deuterium" Science 361 677-682
- Cerreta, E.K., Addessio, F.L., Bronkhorst, C.A., Jones, D.R., Lookman, T., Martinez, D.T., Morrow, B.M., Rigg, P.A. and Trujillo, C.P. 2018 "Path dependency of phase transformations" AIP Conf. Proc. 1979 060001
- Chanda, A. and Graeter, R. 2018 "Human skin-like composite materials for blast-induced injury mitigation" J. Compos. Sci. 2 doi: 10.3390/jcs2030044

- Chen, X., Li, X., Yan, H., Wang, X. and Chen, S. 2018 "Underwater explosive compaction-sintering of tungsten-copper coating on a copper surface" High Press. Res. 38 41-52
- Chen, J., Tschopp, M.A. and Dongare, A.M. 2018 "Role of nanoscale copper/tantalum interfaces on the shock compression and spall failure of nanocrystalline copper/tantalum systems at the atomic scales" J. Mater. Sci. 53 5745-5765
- Chen, H., Barnhart, M.V., Chen, Y.Y. and Huang, G.L. 2018 "Elastic metamaterials for blast wave impact mitigation", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 357-375, (New York, Springer)
- Choi, J., Yoo, S., Song, S., Park, J.S. and Kang, K. 2018 "Molecular dynamics study of Hugoniot relation in shocked nickel single crystal" J. Mech. Sci. Technol. 32 3273-3281
- Chong, T., Wang, G.J., Tan, F.L. and Zhao, J.H. 2018 "Phase transformation kinetics of zirconium under ramp wave loading with different windows (in Chinese)" Acta Phys. Sinica 67 070204
- Chong, T., Tang, Z.P., Tan, F.L., Wang, G.J. and Zhao, J.H. 2018 "Phase transition and dynamics of iron under ramp wave compression" Acta Mech. Sinica 34 902-909
- Christensen, J.M., Banishev, A. and Dlott, D.D. 2018 "Shock compression spectroscopy of quantum dots" AIP Conf. Proc. 1979 130002
- Chung, K., Kwon, H., Park, J.S. and Song, S. 2018 "Numerical simulation on high speed impact behavior of aluminum-tungsten and aluminum-nickel mixture" J. Mech. Sci. Technol. 32 4629-4636
- Church, P., Mepsted, G., Thompson, P., Braithwaite, C., Taylor, N., Perkinson, M., Wishart, A. and Vijendran, S. 2018 "Development of a methodology for component testing under impact loading for space" AIP Conf. Proc. 1979 170001
- Clayton, J.D. 2018 "Shock compression of metal single crystals modeled via Finsler-geometric continuum theory" AIP Conf. Proc. 1979 180001
- Clifton, R.J. 2018 "On percolation, jamming, and shock waves in solids" AIP Conf. Proc. 1979 070011
- Cotton, M. and Maw, J. 2018 "High strain rate compaction of porous materials: Experiments and modelling" EPJ Web Conferences 183 02016
- Crochet, M. 2018 "A continuum mixture model for steady detonation using a multiphase-based closure" AIP Conf. Proc. 1979 180002
- Cummock, N.R., Mares, J.J.O., Gunduz, I.E. and Son, S.F. 2018 "Relating a small-scale shock sensitivity experiment to large-scale failure diameter in an aluminized ammonium nitrate non-ideal explosive" Combust. Flame 194 271-277
- Dattelbaum, D.M. 2018 "In situ insights into shock-driven reactive flow" AIP Conf. Proc. 1979 020001

- de Rességuier, T., Roland, C., Prudhomme, G., Brambrink, E., Franzkowiak, J.-E., Loison, D., Lescoute, E., Sollier, A. and Berthe, L. 2018 "Picosecond radiography combined with other techniques to investigate microjetting from laser shock-loaded grooves" AIP Conf. Proc. 1979 080011
- de Souza, T.A.J. and Pereira, T.C. 2018 "Caenorhabditis elegans tolerates hyperaccelerations up to 400,000g" Astrobiology 18 doi: 10.1089/ast.2017.1802
- DeHaven, M.R., Vandersall, K.S., Strickland, S.L., Fried, L.E. and Tarver, C.M. 2018 "Double shock experiments performed at -55°C on LX-17 with reactive flow modeling to understand the reacted equation of state" AIP Conf. Proc. 1979 150012
- Demaske, B.J., Wen, P., Phillpot, S.R. and Spearot, D.E. 2018 "Atomic-level deformation of  $\text{Cu}_x\text{Zr}_{100-x}$  metallic glasses under shock loading" J. Appl. Phys. 123 215101
- Derrick, J.G., Rutherford, M.E., Davison, T.M., Chapman, D.J., Eakins, D.E. and Collins, G.S. 2018 "Interrogating heterogeneous compaction of analogue materials at the mesoscale through numerical modeling and experiments" AIP Conf. Proc. 1979 110004
- Derrick, J.G., LaJeunesse, J.W., Davison, T.M., Borg, J.P. and Collins, G.S. 2018 "Mesoscale simulations of shock compaction of a granular ceramic: Effects of mesostructure and mixed-cell strength treatment" Model. Simul. Mater. Sci. Engng 26 035009
- Dewey, J.M. 2018 "The Rankine-Hugoniot equations: Their extensions and inversions related to blast waves", in "Blast Effects: Physical Properties of Shock Waves", ed. I. Sochet, pp. 17-35, (New York, Springer)
- Djordjevic, N., Vignjevic, R., Kiely, L., Case, S., De Vuyst, T., Campbell, J. and Hughes, K. 2018 "Modelling of shock waves in fcc and bcc metals using a combined continuum and dislocation kinetic approach" Int. J. Plast. 105 211-224
- Döppner, T., Swift, D.C., Kritcher, A.L., Bachmann, B., Collins, G.W., Chapman, D.A., Hawreliak, J., Kraus, D., Nilsen, J., Rothman, S., Benedict, L.X., Dewald, E., Fratanduono, D.E., Gaffney, J.A., Glenzer, S.H., Hamel, S., Landen, O.L., Lee, H.J., LePape, S., Ma, T., MacDonald, M.J., PacPhee, A.G., Milathianaki, D., Millot, M., Neumayer, P., Sterne, P.A., Tommasini, R. and Falcone, R.W. 2018 "Absolute equation-of-state measurement for polystyrene from 25 to 60 Mbar using a spherically converging shock wave" Phys. Rev. Letts 121 025001
- Drake, R.C. 2018 "Assessing the effect of the role of detonation wave curvature on the firing times of high voltage detonators" AIP Conf. Proc. 1979 100010



- Drake, S.M., Beard, A.D., Jones, A.P., Brown, D.J., Fortes, A.D., Millar, I.L., Carter, A., Baca, J. and Downes, H. 2018 "Discovery of a meteoritic ejecta layer containing unmelted impactor fragments at the base of Paleocene lavas, Isle of Skye, Scotland" *Geology* 46 171-174
- Drdlová, M., Popovic, M. and Koutny, O. 2018 "Blast resistance of hybrid fibre reinforced concrete containing polyvinyl alcohol, polypropylene and steel fibres with various shape parameters" *EPJ Special Topics* 227 111-126
- Driver, K.P., Soubiran, F. and Militzer, B. 2018 "Path integral Monte Carlo simulations of warm dense aluminum" *Phys. Rev. E* 97 063207
- Duan, Y., Han, Y., Lu, X., Tan, K. and Song, Q. 2018 "Driving ability of HMX-based aluminized explosive affected by the reaction degree of aluminum powder" *AIP Conf. Proc.* 1979 150013
- Ducouso, M., Bardy, S., Rouchausse, Y., Bergara, T., Jenson, F., Berthe, L., Videau, L. and Cuvillier, N. 2018 "Quantitative evaluation of the mechanical strength of titanium/composite bonding using laser-generated shock waves" *Appl. Phys. Letts* 112 111904
- Dudin, S.V., Sosikov, V.A. and Torunov, S.I. 2018 "Formation features of cylindrical detonation wave at multipoint initiation" *J. Phys. Conf. Ser.* 946 012057
- Dutta, R., White, C.E., Greenberg, E., Prakapenka, V.B. and Duffy, T.S. 2018 "Equation of state of the alpha-PbO<sub>2</sub> and Pa3-type phases of GeO<sub>2</sub> to 120 GPa" *Phys. Rev. B* 98 144106
- Dutta, A. 2018 "Surface damage of CuZr metallic glass by hypervelocity nano-projectile: A molecular dynamics study" *Comput. Mater. Sci.* 141 41-48
- Ebel, A.A. and Mayer, A.E. 2018 "Influence of deposited nanoparticles on the spall strength of metals under the action of picosecond pulses of shock compression" *J. Phys. Conf. Ser.* 946 012045
- Eckner, R., Krüger, L., Motylenko, M., Savinykh, A.S., Razorenov, S.V. and Garkushin, G.V. 2018 "Deformation mechanisms and microplasticity of austenitic TRIP/TWIP steel under flyer plate impact" *EPJ Web Conferences* 183 03007
- Edgeley, J. and Braithwaite, C. 2018 "Characterising shock propagation through inert beds" *AIP Conf. Proc.* 1979 150014
- Efremov, V.P., Zakatilova, E.I., Maklashova, I.V. and Shevchenko, N.V. 2018 "Thermal stability of detonation-produced micro and nanodiamonds" *J. Phys. Conf. Ser.* 946 012107
- Emsenhuber, A., Jutzi, M. and Benz, W. 2018 "SPH calculations of Mars-scale collisions: The role of the equation of state, material rheologies, and numerical effects" *Icarus* 301 247-257
- Erofeev, V.I., Gerasimov, S.I. and Malkhanov, A.O. 2018 "Nonlinear spatial localized strain waves" *EPJ Web Conferences* 183 02030

- Erskine, D.J. and Fratanduono, D.E. 2018 "VISAR fringe analysis under extreme spatially varying conditions" AIP Conf. Proc. 1979 160006
- Erzar, B., Le Blanc, G., Malaise, F. and Buzaud, E. 2018 "A micromechanical modeling approach to describe the dynamic spalling of ceramic materials" AIP Conf. Proc. 1979 070012
- Erzar, B. and Zinszner, J.-L. 2018 "Dynamic characterization of tungsten carbide behaviour at very high strain-rates" EPJ Web Conferences 183 02061
- Faik, S., Tauschwitz, A. and Iosilevsky, I. 2018 "The equation of state package FEOS for high energy density matter" Comput. Phys. Commun. 227 117-125
- Fajardo, M.E., Neel, C.H. and Lacina, D.G. 2018 "Using mid-infrared external reflectance spectroscopy to distinguish between different commercially produced PMMA samples: A null result" AIP Conf. Proc. 1979 130003
- Fajardo, M.E. 2018 "Line-RALF Doppler velocimetry" AIP Conf. Proc. 1979 160007
- Fatyanov, O.V., Asimow, P.D. and Ahrens, T.J. 2018 "Thermodynamically complete equation of state of MgO from true radiative shock temperature measurements on samples preheated to 1850 K" Phys. Rev. B 97 024106
- Fazio, A., Pollok, K. and Langenhorst, F. 2018 "Experimental evidence for mechanical Brazil twins as an indicator of low-pressure shock metamorphism (< 17.5 GPa)" Geology 46 787-790
- Fazio, A., Harries, D., Matthaus, G., Mutschke, H., Nolte, S. and Langenhorst, F. 2018 "Femtosecond laser irradiation of olivine single crystals: Experimental simulation of space weathering" Icarus 299 240-252
- Fedorov, A.V., Gnutov, I.S. and Yagovkin, A.O. 2018 "Determination of the sizes of particle ejected from shock-loaded surfaces during their deceleration in a gaseous medium" J. Exper. Theor. Phys. 126 76-82
- Fensin, S.J. and Hahn, E.N. 2018 "Towards predicting susceptibility of grain boundaries to failure in bcc materials" AIP Conf. Proc. 1979 050007
- Fensin, S., Gray III, G.T., Bourne, N. and Hixson, R. 2018 "Microstructure-based failure criterion for ductile materials" EPJ Web Conferences 183 03005
- Ferdowski, M., Omidkhah, M.R. and Keshavarz, M.H. 2018 "Reliable prediction of shock sensitivity of energetic compounds based on small-scale gap test through their electric spark sensitivity" Z. anorg. allgem. Chem. 644 888-892
- Ferguson, J.W., Finnegan, S.G., Goff, M.J. and Millett, J.C.F. 2018 "Shock ring-up in HMX and TATB-based explosives" AIP Conf. Proc. 1979 100011
- Ferri, B.A., Dwivedi, S.K. and McDowell, D.L. 2018 "One-dimensional simulations for spall in metals with intra- and inter-grain failure models" AIP Conf. Proc. 1979 070013
- Finnegan, S.G., Ferguson, J.W., Goff, M.J., Millett, J.C.F. and Whitworth, N.J. 2018 "Development of a flyer design to perform plate impact shock-release-shock experiments on explosives" AIP Conf. Proc. 1979 100012

- Firestone, M.A., Ringstrand, B., Mogavero, B., Despard, J.T., Kelso, K., Gustavsen, R.L., Dattelbaum, D.M., Podlesak, D.W. and Seifert, S. 2018 "Aqueous density fractionation of nanocarbons from colliding-wave PBX9502 detonation soot" AIP Conf. Proc. 1979 160008
- Flynn, G.J., Consolmagno, G.J., Brown, P. and Macke, R.J. 2018 "Physical properties of the stone meteorites: Implications for the properties of their parent bodies" Chem. Erde Geochem. 78 269-298
- Folco, L., Mugnaioli, E., Gemelli, M., Masotta, M. and Campanale, F. 2018 "Direct quartz-coesite transformation in shocked porous sandstone from Kamil Crater (Egypt)" Geology 46 739-742
- François, E., Tasker, D., Burritt, R. and Bowden, P. 2018 "Initiation of insensitive high explosives using multiple wave interactions" AIP Conf. Proc. 1979 160009
- Franzkowiak, J.-E., Prudhomme, G., Mercier, P., Lauriot, S., Dubreuil, E. and Berthe, L. 2018 "PDV-based estimation of high-speed ejecta particles density from shock-loaded tin plate" AIP Conf. Proc. 1979 080004
- Franzkowiak, J.-E., Prudhomme, G., Mercier, P., Lauriot, S., Dubreuil, E. and Berthe, L. 2018 "PDV-based estimation of ejecta particles' mass-velocity function from shock-loaded tin experiment" Rev. Sci. Instrum. 89 033901
- Fras, T., Szachogluchowicz, I. and Sniezek, L. 2018 "Ti6Al4V-AA1050-AA2519 explosively-cladded plates under impact loading" EPJ Special Topics 227 17-27
- Fratanduono, D.E., Millot, M., Kraus, R.G., Spaulding, D.K., Collins, G.W., Celliers, P.M. and Eggert, J.H. 2018 "Thermodynamic properties of MgSiO<sub>3</sub> at super-Earth mantle conditions" Phys. Rev. B 97 214105
- Fredenburg, A., Coe, J., Maerzke, K., Lang, J., Dattelbaum, D. and Sandoval, D. 2018 "Estimating the reaction onset for porous polymer systems" AIP Conf. Proc. 1979 090003
- Freeman, M.S., Rousculp, C., Oro, D., Kreher, S., Cheng, B., Griego, J., Petten, A., Neukirch, L., Reinovsky, R., Turchi, P., Bradley III, J., Reass, W., Fierro, F., Randolph, R., Donovan, P., Saunders, A., Mariam, F. and Tang, Z. 2018 "The spikes from Richtmyer-Meshkov instabilities in pulsed power cylindrical experiments" AIP Conf. Proc. 1979 080005
- Fronczek, D.M., Saksi, K., Chulist, R., Michalik, S., Wojewoda-Budka, J., Sniezek, L., Wachowski, M., Torzewski, J., Sulikova, M., Sulova, K., Lachova, A., Fejercak, M., Daisenberger, D., Szulc, Z. and Kania, Z. 2018 "Residual stresses distribution, correlated with bending tests, within explosively welded Ti gr. 2/A1050 bimetals" Mater. Charact. 144 461-468
- Furukawa, Y., Takase, A., Sekine, T., Kakegawa, T. and Kobayashi, T. 2018 "Racemization of valine by impact-induced heating" Origins Life Evolution Biosphere 48 131-139

- Gaffney, J.A., Hu, S.X., Arnault, P., Becker, A., Benedict, L.X., Boehly, T.R., Celliers, P.M., Ceperley, D.M., Certik, O., Clerouin, J., Collins, G.W., Collins, L.A., Danel, J.F., Desbiens, N., Dharma-Wardana, M.W.C., Ding, Y.H., Hamel, S., Hansen, S.B., Harbour, L., He, X.T., Johnson, D.D., Kang, W., Karasiev, V.V., Kazandjian, L., Knudson, M.D., Ogitsu, T., Pierleoni, C., Piron, R., Redmer, R., Robert, G., Saumon, D., Shamp, A., Sjostrom, T., Smirnov, A.V., Starrett, C.E., Sterne, P.A., Wardlow, A., Whitley, H.D., Wilson, B., Zhang, P. and Zurek, E. 2018 "A review of equation-of-state models for inertial confinement fusion materials" *High Energy Density Phys.* 28 7-24
- Gaitanoros, S., Kyriakides, S. and Kraynik, A.M. 2018 "On the crushing of polydisperse foams" *Eur. J. Mech. A/Solids* 67 243-253
- Gamaly, E.G., Juodkazis, S. and Rode, A.V. 2018 "Extreme energy density confined inside a transparent crystal: Status and perspectives of solid-plasma-solid transformations" *Nanomaterials* 8 doi: 10.3390/nano8070555
- Garkusha, I., Makhraj, V., Byrka, O., Taran, V., Voitsenya, V., Malykhin, S., Herashchenko, S., Surovitskiy, S., Nowakowska-Langier, K., Sadowski, M.J., Skladnik-Sadowska, E. and Terentyev, D. 2018 "Materials surface damage and modification under high power plasma exposures" *J. Phys. Conf. Ser.* 959 012004
- Ghoshal, R. and Mitra, N. 2018 "Underwater oblique shock wave reflection" *Phys. Rev. Fluids* 3 013403
- Giammarinaro, B., Espíndola, D., Coulouvrat, F. and Pinton, G. 2018 "Focusing of shear shock waves" *Phys. Rev. Appl.* 9 014011
- Gibson, J., Trujillo, C.J., Nakamoto, T., Smith, D., Wilde, Z., Tasker, D. and Francois, E. 2018 "Novel uses of detonator diagnostics" *AIP Conf. Proc.* 1979 150016
- Girdyuk, A.E., Gorshkov, A.N., Egorov, V.V., Kolikov, V.A., Snetov, V.N. and Shneerson, G.A. 2018 "Effect of shock waves generated by pulsed electric discharges in water on yeast cells and virus particles" *Tech. Phys.* 63 285-290
- Godibadze, B., Dgebuadze, A., Chagelishvili, E., Mamniashvili, G. and Peikrishvili, A. 2018 "Dynamic consolidation and investigation of nanostructural W-Cu/W-Y cylindrical billets" *J. Phys. Conf. Ser.* 987 012027
- Goff, M., Millett, J.C.F., Whiteman, G., Collinson, M. and Ferguson, J. 2018 "Characterization of a Y-TZP zirconia material for gas gun experiments" *AIP Conf. Proc.* 1979 030002
- Gonzalez-Izquierdo, B., Capdessus, R., King, M., Gray, R.J., Wilson, R., Dance, R.J., McCreadie, J., Butler, N.M.H., Hawkes, S.J., Green, J.S., Booth, N., Borghesi, M., Neely, D. and McKenna, P. 2018 "Radiation pressure-driven plasma surface dynamics in ultra-intense laser pulse interactions with ultra-thin foils" *Applied Sciences* 8 doi: 10.3390/app8030336

- Goodbody, A.B., Dattelbaum, D.M., Gustavsen, R.L., Bartram, B.D. and Stahl, D.B. 2018 "Plate impact experiments on the silicone elastomer DC745U cooled to  $-60^{\circ}\text{C}$ " AIP Conf. Proc. 1979 090004
- Goodwin, P.M., Dattelbaum, D.M., Sheffield, S.A., Lang, J.M. and Coe, J.D. 2018 "Shock-driven reactions in acrylonitrile" AIP Conf. Proc. 1979 100013
- Gopalakrishnan, S. and Rajapakse, Y., Eds. 2018 "Blast Mitigation Strategies in Marine Composite and Sandwich Structures" (New York, Springer)
- Gorbashova, M., Burdonskiy, I., Gubskiy, K., Kuznetsov, A., Ramazanov, A., Lukyanov, K., Leonov, A., Makarov, K., Timofeyev, I. and Yufa, V. 2018 "Application of direct optical heterodyning methods for studying the processes of chondrite targets destruction by laser radiation" J. Phys. Conf. Ser. 941 012002
- Gorfain, J.R., Key, C.T., Veysset, D. and Nelson, K.A. 2018 "Simulation of polyurea shock response under high-velocity microparticle impact" AIP Conf. Proc. 1979 090005
- Grady, D.E. 2018 "Principles underlying the fourth power nature of structured shock waves" AIP Conf. Proc. 1979 070014
- Granum, M., Aune, V., Børvik, T. and Hopperstad, O.S. 2018 "Aluminium plates with pre-formed slits subjected to blast loading" EPJ Web Conferences 183 01032
- Gray III, G.T., Knapp, C.M., Jones, D.R., Livescu, V., Fensin, S., Morrow, B.M., Trujillo, C.P., Martinez, D.T. and Valdez, J.A. 2018 "Structure/property characterization of spallation in wrought and additively manufactured tantalum" AIP Conf. Proc. 1979 060002
- Gray III, G.T., Livescu, V., Knapp, C., Jones, D.R., Fensin, S., Chen, S.-R., Cady, C.M., Trujillo, C.P. and Martinez, D. 2018 "Structure/property (constitutive and dynamic strength/damage) behavior of additively manufactured tantalum" EPJ Web Conferences 183 03002
- Green, E.C.R., Artacho, E. and Connolly, J.A.D. 2018 "Bulk properties and near-critical behaviour of  $\text{SiO}_2$  fluid" Earth Planet. Sci. Letts 491 11-20
- Grinfeld, M. and Grinfeld, P. 2018 "Gravitational collapse and self-oscillations of two-phase celestial bodies" AIP Conf. Proc. 1979 170002
- Gubin, S.A., Maklashova, I.V. and Melnikov, I.N. 2018 "The Hugoniot adiabat of crystalline copper based on molecular dynamics simulation and semiempirical equation of state" J. Phys. Conf. Ser. 946 012098
- Guo, W., Wu, L.Z., He, N.B., Chen, S.J., Zhang, W., Shen, R.Q. and Ye, Y.H. 2018 "Efficiency relationship between initiation of HNS-IV and nanosecond pulsed laser-driven flyer plates of layered structure" Laser Particle Beams 36 29-40
- Gurovich, V., Virozub, A., Rososhek, A., Bland, S., Spielman, R.B. and Krasik, Y.E. 2018 "Quasi-isentropic compression using compressed water flow generated by underwater electrical explosion of a wire array" J. Appl. Phys. 123 185902

- Gustavsen, R.L., Bertram, B.D., Gibson, L.L., Pacheco, A.H., Jones, J.D. and Goodbody, A.B. 2018 "Shock initiation of the TATB-based explosive PBX 9502 heated to 130°C" AIP Conf. Proc. 1979 100015
- Hahn, E.N., Fensin, S.J. and Germann, T.C. 2018 "The role of grain boundary orientation on void nucleation in tantalum" AIP Conf. Proc. 1979 050008
- Hallajisany, M., Vitoria, J.A. and Zamani, J. 2018 "Semi-analytical modeling of steady weak shock wave front for solid metals following the Swegle–Grady relation" Proc. Inst. Mech. Engrs Part L: J. Mater. Des. Applic. doi: 10.1177/1464420718801694
- Hammerberg, J.E., Ravelo, R.J. and Germann, T.C. 2018 "Large-scale molecular dynamics studies of sliding friction in nanocrystalline aluminum" AIP Conf. Proc. 1979 050009
- Hammerberg, J.E., Buttler, W.T., Llobet, A., Morris, C., Goett, J., Manzanares, R., Saunders, A., Schmidt, D., Tainter, A., Vogan-McNeil, W. and Wilde, C. 2018 "Proton radiography measurements and models of ejecta structure in shocked tin" AIP Conf. Proc. 1979 080006
- Han, Y., Xie, X., Jiang, Z., Duan, Y. and Wen, Y. 2018 "Equation of state of detonation products for TNT by aquarium experiment" AIP Conf. Proc. 1979 100016
- Hanagud, S. and Manghaiapathy, P. 2018 "Blast mitigation through the operation of steering the incoming wave by the use of active metamaterial structure", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 377-396, (New York, Springer)
- Handley, C.A., Lambourn, B.D., Whitworth, N.J., James, H.R. and Belfield, W.J. 2018 "Understanding the shock and detonation response of high explosives at the continuum and mesoscales" Appl. Phys. Rev. 5 011303
- Hazard, P.-H., Godin, T., Idlachen, S., Rozé, C. and Hideur, A. 2018 "Real-time tracking of single shockwaves via amplified time-stretch imaging" Appl. Phys. Letts 112 161106
- Hardin, D.B. and Mares, J.O. 2018 "Temperature rise from collapsing pores" AIP Conf. Proc. 1979 180003
- Hargather, M.J., Kimberley, J. and Thoma, S.G. 2018 "Failure and fragmentation of pressed bimetallic composites" AIP Conf. Proc. 1979 150018
- Hasan, M.A. and Nemat-Nasser, S. 2018 "Shock-induced solitary waves in granular crystals" Phys. Rev. E 97 022205
- Hayun, S., Ionash, E., Kalabukhov, S., Frage, N. and Zaretsky, E. 2018 "Strength of ceramic–metal joints measured in planar impact experiments" J. Mater. Sci. 53 8211-8220
- He, A.-M., Wang, P. and Shao, J.-L. 2018 "Effects of defects and microstructure on release melting of shock-loaded copper: Atomistic simulations" J. Appl. Phys. 123 015901

- Heberling, T., Terrones, G. and Weseloh, W. 2018 "Hydrocode simulations of a hypervelocity impact experiment over a range of velocities" *Int. J. Impact Engng* 122 1-9
- Herbold, E.B., Homel, M.A., Lind, J., Crum, R., Hurley, R.C., Jensen, B.J., Iverson, A.J., Owens, C.T., Carlson, C.A. and Akin, M.C. 2018 "Microscale investigation of dynamic impact of dry and saturated glass powder" *AIP Conf. Proc.* 1979 070015
- Hernández, A.M. and Stewart, D.S. 2018 "Numerical study of detonation transfer from embedded explosives" *AIP Conf. Proc.* 1979 100018
- Hieronimus, H. 2018 "Single bubble ignition after shock wave impact", in "The Micro-World Observed by Ultra High-Speed Cameras", ed. K. Tsuji, pp. 303-317, (Berlin, Springer)
- Higgins, A., Loiseau, J. and Mi, X.C. 2018 "Detonation velocity/diameter relation in gelled explosive with inert inclusions" *AIP Conf. Proc.* 1979 100019
- Hodgson, A.N. 2018 "Detonation shock dynamics modelling with arbitrary boundaries" *AIP Conf. Proc.* 1979 100020
- Homel, M.A., Herbold, E.B., Lind, J., Pagan, D., Crum, R., Hurley, R. and Akin, M. 2018 "Simulations and experiments of dynamic granular compaction in non-ideal geometries" *AIP Conf. Proc.* 1979 180004
- Hoo Fatt, M.S., Alkhtany, M. and Sirivolu, D. 2018 "Blast mitigation effects of foam-core, composite sandwich structures", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 265-280, (New York, Springer)
- Hooks, D.E., Lang, J.M., Coe, J.D. and Dattelbaum, D.M. 2018 "High pressure deep-release impact experiments on high density and ultra-high molecular weight polyethylene" *AIP Conf. Proc.* 1979 030004
- Hsieh, A.J., Veysset, D., Miranda, D.F., Kooi, S.E., Runt, J. and Nelson, K.A. 2018 "Molecular influence in the glass/polymer interface design: The role of segmental dynamics" *Polymer* 146 222-229
- Hu, H., Zhang, C., Wang, X., Chen, Y., Tang, T. and Liu, N. 2018 "Experimental study on colliding shock waves and Mach stem formation in metals" *AIP Conf. Proc.* 1979 080007
- Hu, X.J., Yang, G., Zhao, B., Li, P.Y., Yang, J., Leng, C.W., Liu, H.Y. and Fei, Y.W. 2018 "Shock compression behavior of a mixture of cubic and hexagonal boron nitride" *J. Appl. Phys.* 123 175903
- Huang, W.K., Huan, S. and Xiao, Y. 2018 "A novel-type velocity-controllable electromagnetic coil launcher based on voltage control" *J. Electrical Engng Technol.* 13 2067-2073
- Hujer, J. and Müller, M. 2018 "Calibration of PVDF film transducers for the cavitation impact measurement" *EPJ Web Conferences* 180 02036

- Huneault, J., Kamil, J., Higgins, A. and Plant, D. 2018 "Dynamic tensile strength of silicone oils" AIP Conf. Proc. 1979 070016
- Huser, G., Ozaki, N., Colin-Lalu, P., Recoules, V., Sano, T., Sakawa, Y., Miyanishi, K. and Kodama, R. 2018 "Hugoniot equation of state of silicon-doped glow discharge polymer and scaling to other plastic ablaters" Phys. Plasmas 25 052706
- Hwang, Y.H. 2018 "Development of a particle method of characteristics for one-dimensional shock waves" Shock Waves 28 379-399
- Idris, N., Pardede, M., Kurniawan, K.H., Kagawa, K. and Tjia, M.O. 2018 "Shock wave plasma induced emission generated by low energy nanosecond Nd:YAG laser in open air and its application to quantitative chromium analysis of low alloy steel" AIP Advances 8 055121
- Igra, D. and Igra, O. 2018 "Numerical investigation of the interaction between a planar shock wave with square and triangular bubbles containing different gases" Phys. Fluids 30 056104
- Inogamov, N., Zhakhovsky, V. and Khokhlov, V. 2018 "Laser ablation of metal into liquid: Near critical point phenomena and hydrodynamic instability" AIP Conf. Proc. 1979 190001
- Inogamov, N.A., Zhakhovsky, V.V. and Khokhlov, V.A. 2018 "Warm dense matter in extremely small volume: Hydrodynamics of nanofilms triggered by laser irradiation at diffraction limit" AIP Conf. Proc. 1979 190002
- Iorga, O., Zecheru, T., Lamache, T., Voicu, A., Matache, L.-C., Trana, E., Epure, C., Anghel, L. and Rotariu, T. 2018 "Simulations of the parameters influencing the underwater cutting systems availability and performance", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 688-697, (Pardubice, Czech Republic, University of Pardubice)
- Ishchenko, A.N., Akinshin, R.N., Afanaseva, S.A., Belov, N.N., Borisenkov, I.L., Burkin, V.V., Tabachenko, A.N., Khabibullin, M.V. and Yugov, N.T. 2018 "Experimental and theoretical research into dynamic loading of tungsten porous alloy with reinforcing agent" Russ. Phys. J. 61 1054-1061
- Ivanov, K.V., Razorenov, S.V. and Garkushin, G.V. 2018 "Quasistatic and shock-wave loading of ultrafine-grained aluminum: Effect of microstructural characteristics" J. Mater. Sci. 53 14681-14693
- Izvekov, S., Weingarten, N.S. and Byrd, E.F.C. 2018 "Effect of a core-softened O-O interatomic interaction on the shock compression of fused silica" J. Chem. Phys. 148 094504
- Jackson, T.L., Jost, A.M.D., Zhang, J., Sridharan, P. and Amadio, G. 2018 "Three-dimensional mesoscale simulations of detonation initiation in energetic materials with density-based kinetics" AIP Conf. Proc. 1979 100021



- Jacques, N. and Barthélémy, R. 2018 "Modelling of the behaviour of metal foams under shock compression" EPJ Web Conferences 183 01041
- Jacques, N. and Barthelemy, R. 2018 "An analytical expression for the Hugoniot stress-strain curve of elastic-plastic cellular materials" Int. J. Impact Engng 115 76-80
- Jafari, M., Keshavarz, M.H., Zamani, A., Zakinejad, S. and Alekaram, I. 2018 "A novel method for assessment of the velocity of detonation for primary explosives" Propell. Explos. Pyrotech. 43 342-347
- Jain, P. and Chakraborty, T. 2018 "Numerical analysis of tunnel in rock with basalt fiber reinforced concrete lining subjected to internal blast load" Computers & Concrete 21 399-406
- Jensen, B.J. and Crockett, S.D. 2018 "Shock wave experiments on gallium" AIP Conf. Proc. 1979 040003
- Jensen, B.J., Wright, J., Hollander, B., Cherne, F.J., Tucker, T., Owens, C.T. and Rivera, J. 2018 "Synchronizing a 40 mm powder gun to an accelerator" AIP Conf. Proc. 1979 160011
- Jeon, H. and Eliasson, V. 2018 "Investigation of transmission of a shock wave through thin films", in "Dynamic Behavior of Materials", ed. J. Kimberley, L.E. Lamberson and S. Mates, pp. 63-65, (New York, Springer)
- Jeon, H. and Eliasson, V. 2018 "Shock wave mitigation using liquids", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 301-320, (New York, Springer)
- Jiang, C.-Q., Li, Y., Liu, Q.-C., Zhou, X.-M. and Luo, S.N. 2018 "A 532 nm fiber-optic displacement interferometer for low-velocity impact experiments" Rev. Sci. Instrum. 89 023101
- Jiao, T., Kettenbeil, C., Ravichandran, G. and Clifton, R.J. 2018 "Experimental investigation of the shearing resistance of sodalime glass at pressures of 9 GPa and strain rates of  $10^6\text{s}^{-1}$ " AIP Conf. Proc. 1979 070017
- Jiao, T., Malhotra, P. and Clifton, R.J. 2018 "IR temperature measurement in pressure-shear plate impact experiments" AIP Conf. Proc. 1979 160012
- Jodar, B., Loison, D., Yokoyama, Y., Lescoute, E., Nivard, M., Berthe, L. and Sangleboeuf, J.-C. 2018 "Localized atomic segregation in the spalled area of a  $\text{Zr}_{50}\text{Cu}_{40}\text{Al}_{10}$  bulk metallic glasses induced by laser-shock experiment" J. Phys. D: Appl. Phys. 51 065304
- Jodar, B., Loison, D., Yokoyama, Y., Lescoute, E., Dereure, C., Nivard, M., Orain, H., Berthe, L. and Sangleboeuf, J.-C. 2018 "Effects of ZrCuAl bulk metallic glasses Poisson's ratios on spalling process induced by laser shock" AIP Conf. Proc. 1979 070018

- Johnson, C., Mulligan, P., Williams, K., Langenderfer, M. and Heniff, J. 2018 "Effect of explosive charge geometry on shock wave propagation" AIP Conf. Proc. 1979 150021
- Johnson, C.R., Sable, P.A., LaJeunesse, J.W., Dawson, A., Hatzenbihler, A. and Borg, J.P. 2018 "Photon Doppler velocimetry measurements of transverse surface velocities" AIP Conf. Proc. 1979 160013
- Johnson, B.C., Ciesla, F.J. and Dullemond, C.P. 2018 "Formation of chondrules by planetesimal collisions", in "Chondrules: Records of Protoplanetary Disk Processes", ed. S.S. Russell, H.C. Connolly and A.N. Krot, pp. 343-360, (Cambridge, Cambridge University Press)
- Johnson, C.R., LaJeunesse, J.W., Sable, P.A., Dawson, A., Hatzenbihler, A. and Borg, J.P. 2018 "Photon Doppler velocimetry measurements of transverse surface velocities" Rev. Sci. Instrum. 89 063106
- Jones, K., Lane, J.M.D. and Vogler, T.J. 2018 "Molecular dynamics study of shock compression in porous silica glass" AIP Conf. Proc. 1979 050010
- Jones, J.D., Ma, X., Clements, B.E., Gibson, L.L. and Gustavsen, R.L. 2018 "Measurement and reactive burn modeling of the shock to detonation transition for the HMX based explosive LX-14" AIP Conf. Proc. 1979 100022
- Jones, R.E. and Ward, D.K. 2018 "Influence of defects on the thermal conductivity of compressed LiF" Phys. Rev. B 97 054103
- Jones, D.R., Fensin, S.J., Trujillo, C.P., Martinez, D.T. and Gray III, G.T. 2018 "Stress and strain rate effects on incipient spall in tantalum" EPJ Web Conferences 183 03021
- Jones, D.R., Fensin, S.J., Ndefru, B.G., Martinez, D.T., Trujillo, C.P. and Gray III, G.T. 2018 "Spall fracture in additive manufactured tantalum" J. Appl. Phys. 124 225902
- Jordan, J.L., Dattelbaum, D.M., Schilling, B.F., Welch, C.F. and Stull, J.A. 2018 "Low pressure shock response and dynamic failure of high density polyethylene (HDPE)" AIP Conf. Proc. 1979 090006
- Joshi, R.H., Thakore, B.Y., Bhatt, N.K., Vyas, P.R. and Jani, A.R. 2018 "Semi-empirical ansatz for Helmholtz free energy calculation: Thermal properties of silver along shock Hugoniot" Physica B 530 160-166
- Joshi, R.H., Bhatt, N.K., Thakore, B.Y. and Vyas, P.R. 2018 "Grüneisen parameter and equations of states for copper: High pressure study" Computational Condensed Matter 15 79-84
- Kabwe, E. 2018 "Velocity of detonation measurement and fragmentation analysis to evaluate blasting efficacy" J. Rock Mech. Geotech. Engng 10 523-533
- Kadatskiy, M.A. and Khishchenko, K.V. 2018 "Theoretical investigation of the shock compressibility of copper in the average-atom approximation" Phys. Plasmas 25 112701

- Kai, Y., Garen, W. and Teubner, U. 2018 "Experimental investigations on microshock waves and contact surfaces" *Phys. Rev. Letts* 120 064501
- Kan, M.-X., Zhang, Z.-H., Xiao, B., Yang, L., Duan, S.-C., Wang, G.-H. and Wang, G.-L. 2018 "Simulation of magnetically driven flyer plate experiments with an improved magnetic field boundary formula" *High Energy Density Phys.* 26 38-43
- Kanel, G.I., Garkushin, G.V., Savinykh, A.S. and Razorenov, S.V. 2018 "Effect of small preliminary deformation on the evolution of elastoplastic waves of shock compression in annealed VT1-0 titanium" *J. Exper. Theor. Phys.* 127 337-341
- Kanel, G.I., Razorenov, S.V., Garkushin, G.V. and Savinykh, A.S. 2018 "New data on the kinetics and governing factors of the spall fracture of metals" *J. Phys. Conf. Ser.* 946 012039
- Karkhanis, v., Ramaprabhu, P., Cherne, F.J., Hammerberg, J.E. and Andrews, M.J. 2018 "A numerical study of bubble and spike velocities in shock-driven liquid metals" *J. Appl. Phys.* 123 025902
- Karolczuk, A., Paul, H., Szulc, Z., Kluger, K., Najwer, M. and Kwiatkowski, G. 2018 "Residual stresses in explosively-welded plates made of titanium Grade 12 and steel with interlayer" *J. Mater. Engng Perform.* 27 4571-4581
- Kaya, Y. 2018 "Microstructural, mechanical and corrosion investigations of ship steel-aluminum bimetal composites produced by explosive welding" *Metals* 8 doi: 10.3390/met8070544
- Kazurov, A.V., Adamenko, N.A. and Pisarev, S.P. 2018 "Thermal and electrical conductivity of copper-fluoroplast composites produced by explosive pressing" *Inorg. Mater.: Appl. Res.* 9 584-587
- Kenkmann, T., Deutsch, A., Thoma, K., Ebert, M., Poelchau, M.H., Buhl, E., Carl, E.R., Danilewsky, A.N., Dresen, G., Dufresne, A., Durr, N., Ehm, L., Grosse, C., Gulde, M., Guldenmeister, N., Hamann, C., Hecht, L., Hiermaier, S., Hoerth, T., Kowitz, A., Langenhorst, F., Lexow, B., Liermann, H.P., Luther, R., Mansfeld, U., Moser, D., Raith, M., Reimold, W.U., Sauer, M., Schafer, F., Schafer, R.T., Schmitt, R.T., Sommer, F., Wilk, J., Winkler, R. and Wunnemann, K. 2018 "Experimental impact cratering: A summary of the major results of the MEMIN research unit" *Meteor. Planet. Sci.* 53 1543-1568
- Kettenbeil, C., Mello, M., Jiao, T., Clifton, R.J. and Ravichandran, G. 2018 "Pressure-shear plate impact experiment on sodalime glass at a pressure of 30 GPa and strain rate of  $4 \cdot 10^7 \text{ s}^{-1}$ " *AIP Conf. Proc.* 1979 070019
- Kettenbeil, C., Mello, M., Bischann, M. and Ravichandran, G. 2018 "Heterodyne transverse velocimetry for pressure-shear plate impact experiments" *J. Appl. Phys.* 123 125902
- Key, C.T., Alexander, C.S., Harstad, E.N. and Schumacher, S.C. 2018 "Dynamic shock response of an S2 glass/SC15 epoxy woven fabric composite material system" *AIP Conf. Proc.* 1979 110006

- Khishchenko, K.V. 2018 "Equation of state for lithium in shock waves" *Mathematica Montisnigri* 41 91-98
- Khishchenko, K.V. 2018 "Equation of state for potassium in shock waves at high pressures" *J. Phys. Conf. Ser.* 946 012082
- Kim, E., Weck, P.F. and Mattsson, T.R. 2018 "Reverse-martensitic hcp-to-fcc transformation in technetium under shock compression" *J. Appl. Phys.* 124 035903
- Kimberley, J., Lamberson, L.E. and Mates, S., Eds. 2018 "Dynamic Behavior of Materials" (New York, Springer)
- Kittel, D.E., Yarrington, C.D., Lechman, J.B. and Baer, M.R. 2018 "Modeling reactive shock waves in heterogeneous solids at the continuum level with stochastic differential equations" *Phys. Fluids* 30 051701
- Kleine, H. 2018 "High-speed imaging of shock waves and their flow fields", in "The Micro-World Observed by Ultra High-Speed Cameras", ed. K. Tsuji, pp. 127-155, (Berlin, Springer)
- Kluwick, A. 2018 "Shock discontinuities: From classical to non-classical shocks" *Acta Mech.* 229 515-533
- Knepper, R., Forrest, E.C., Marquez, M.P. and Tappan, A.S. 2018 "Effect of microstructure on the detonation behavior of vapor-deposited PETN films" *AIP Conf. Proc.* 1979 150022
- Kondratev, A.N., Andriyash, A.V., Astashkin, M.V., Baranov, V.K., Golubinskii, A.G., Irinichev, D.A., Khatunkin, A.Y., Kuratov, S.E., Mazanov, V.A., Rogozkin, D.B. and Stepushkin, S.N. 2018 "Photon Doppler velocimetry of ejecta from shock-loaded samples" *AIP Conf. Proc.* 1979 080008
- Kontis, K., ed., 2018 "K. Kontis" (Berlin, Springer)
- Kositski, R., Steinberger, D., Sandfeld, S. and Mordehai, D. 2018 "Shear relaxation behind the shock front in <110> molybdenum: From the atomic scale to continuous dislocation fields" *Comput. Mater. Sci.* 149 125-133
- Kraus, E.I., Shabalin, I.I. and Shabalin, T.I. 2018 "Numerical simulation of deformation and failure processes of a complex technical object under impact loading" *J. Phys. Conf. Ser.* 991 012048
- Kristoflarsen, M., Hauge, K.O., Valsamos, G. and Børvik, T. 2018 "Blast loading of concrete pipes using spherical centrally placed C-4 charges" *EPJ Web Conferences* 183 01057
- Krivosheev, S.I., Magazinov, S.G. and Alekseev, D.I. 2018 "On the impact of the elastic-plastic flow upon the process of destruction of the solenoid in a super strong pulsed magnetic field" *J. Phys. Conf. Ser.* 946 012040
- Kroonblawd, M.P. and Goldman, N. 2018 "Mechanochemical formation of heterogeneous diamond structures during rapid uniaxial compression in graphite" *Phys. Rev. B* 97 184106

- Kubota, S., Saburi, T. and Nagayama, K. 2018 "Underwater sympathetic detonation of pellet explosive" AIP Conf. Proc. 1979 100023
- Kulish, M.I., Dudin, S.V., Ushnurtsev, A.E. and Mintsev, V.B. 2018 "The liner brightness temperature measurement by two channel optical pyrometer" J. Phys. Conf. Ser. 946 012042
- Kumar, A., Bronkhorst, C.A. and Lookman, T. 2018 "First-principles study of the  $\alpha$ - $\omega$  phase transformation in titanium and zirconium coupled to slip modes" J. Appl. Phys. 123 045903
- Künzel, M., Kucena, J. and Pachman, J. 2018 "Detonator testing using photonic Doppler velocimetry", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 774-779, (Pardubice, Czech Republic, University of Pardubice)
- Kurosawa, K. and Genda, H. 2018 "Effects of friction and plastic deformation in shock-comminuted damaged rocks on impact heating" Geophys. Res. Letts 45 620-626
- Lacina, D. and Neel, C. 2018 "A high-purity alumina for studies of shock loaded samples" AIP Conf. Proc. 1979 030005
- Lacina, D., Neel, C. and Dattelbaum, D. 2018 "Shock response of PMMA measured with embedded electromagnetic gauges" J. Appl. Phys. 123 185901
- LaJeunesse, J.W., Borg, J.P., Stewart, S.T. and Thadhani, N.N. 2018 "Investigating the shock response of dry and water-saturated sand: Flyer-plate experiments and mesoscale simulations" AIP Conf. Proc. 1979 110007
- Lamberson, L.E. and Boettcher, P.A. 2018 "Compressed gas combined single- and two-stage light-gas gun" Rev. Sci. Instrum. 89 023903
- Lane, J.M.D., Salerno, K.M., Srivastava, I., Grest, G.S. and Fan, H. 2018 "Modeling pressure-driven assembly of polymer coated nanoparticles" AIP Conf. Proc. 1979 090007
- Lang, J.M., Fredenburg, D.A., Coe, J.D. and Dattelbaum, D.M. 2018 "Deep-release of Epon 828 epoxy from the shock-driven reaction product phase" AIP Conf. Proc. 1979 090008
- Lang, J.M., Winey, J.M. and Gupta, Y.M. 2018 "Strength and deformation of shocked diamond single crystals: Orientation dependence" Phys. Rev. B 97 104106
- Langenderfer, M., Johnson, C., Fahrenholtz, W. and Mochalin, V. 2018 "Detonation synthesis of alpha-variant silicon carbide" AIP Conf. Proc. 1979 060003
- Lauderbach, L., Chaos, M. and Souers, P.C. 2018 "Effect of temperature on LX-17 and PBX 9502 in the cylinder test" AIP Conf. Proc. 1979 100024
- Lee, R.J., Dorgan, R.J., Svingala, F.R., Dattelbaum, D.M., Furnish, M.D. and Sutherland, G.T. 2018 "Techniques for collection and analysis of pop-plot data for use in parameterization of reactive flow models" AIP Conf. Proc. 1979 100026

- Lee, E.A. 2018 "The response and mechanism of response of PETN chip slapper detonators to electrical and mechanical threats" AIP Conf. Proc. 1979 150023
- Lee, K., Chung, K.-J. and Hwang, Y.S. 2018 "Enhanced shock wave generation via pre-breakdown acceleration using water electrolysis in negative streamer pulsed spark discharges" Appl. Phys. Letts 112 134101
- Lekanov, M.V. and Mayer, A.E. 2018 "Simulation of cylindrical shell collapse with considering plasticity and fracture of metals" J. Phys. Conf. Ser. 946 012046
- Levashov, P.R. and Minakov, D.V. 2018 "Influence of shell effects on thermodynamic properties of matter at high pressures" J. Phys. Conf. Ser. 946 012083
- Li, M., Zhang, S., Zhang, H., Zhang, G., Wang, F., Zhao, J., Sun, C. and Jeanloz, R. 2018 "Continuous sound velocity measurements along the shock Hugoniot curve of quartz" Phys. Rev. Letts 120 215703
- Li, W., Yao, X. and Zhang, X. 2018 "Planar impacts on nanocrystalline SiC: A comparison of different potentials" J. Mater. Sci. 53 6637-6651
- Li, Q., Wang, P., Ren, G., Liu, W. and Chen, Y. 2018 "Microspalling process of an explosively-driven metal tin: Experiments and numerical simulations" EPJ Web Conferences 183 01010
- Li, J., Lu, M., Ai, Y., Tao, C. and Xiong, Y. 2018 "Synthesis of bulk amorphous alloy from iron-base powders by explosive consolidation" Metals 8 doi: 10.3390/met8090727
- Li, Y.L., Zhu, Y.R., Zhang, X.R., Li, J., Wu, K., Jing, J.Y., Tan, S.S. and Zhou, G. 2018 "Dynamic behavior of remolded loess under planar shock conditions" Int. J. Impact Engng 111 236-243
- Li, X.M., Yu, Y.Y., Tan, Y., Hu, C.M., Zhang, Z.G., Lan, Q., Fu, Q.W. and Jing, H.H. 2018 "Softening of sound velocity and Hugoniot parameter measurement for shocked bismuth in the solid-liquid mixing pressure zone (in Chinese)" Acta Phys. Sinica 67 046401
- Li, Y., Zhou, X.M., Cai, Y., Liu, C.L. and Luo, S.N. 2018 "Birefringence and incipient plastic deformation in elastically overdriven [100] CaF<sub>2</sub> under shock compression" J. Appl. Phys. 123 165901
- Li, M., Zhang, S., Zhang, H.P., Zhang, G.M., Wang, F., Zhao, J.H., Sun, S.W. and Jeanloz, R. 2018 "Continuous sound velocity measurements along the shock Hugoniot curve of quartz" Phys. Rev. Letts 120 215703
- Li, G.M., Wang, Y.B., Xiang, M.Z., Liao, Y., Wang, K. and Chen, J. 2018 "Shock response of nanoporous magnesium by molecular dynamics simulations" Int. J. Mech. Sci. 141 143-156
- Li, Y.L., Cai, J., Mo, D. and Wang, Y.D. 2018 "The effect of dislocations on the thermodynamic properties of tantalum single crystal under high pressure by molecular dynamics simulation" Chinese Phys. B 27 086401

- Li, J., Wang, M.Y., Cheng, Y.H. and Qiu, Y.Y. 2018 "Analytical model of hypervelocity penetration into rock" *Int. J. Impact Engng* 122 384-394
- Li, H.J., Li, A.Y. and Dou, Y.S. 2018 "Molecular dynamics simulation of primary detonation process of TATB crystal under shock loading" *Molec. Simul.* 44 1176-1182
- Li, S.R., Duan, Z.P., Wen, L.J., Bai, Z.L., Ou, Z.C. and Huang, F.L. 2018 "Mesoscopic effects on shock initiation of multi-component PBXs" *J. Appl. Phys.* 124 045903
- Li, K.B., Li, X.J., Yan, H.H., Wang, X.H. and Wang, Y.P. 2018 "Study of continuous velocity probe method for the determination of the detonation pressure of commercial explosives" *J. Energ. Mater.* 36 377-385
- Lieber, M., Murphy, M. and Biss, M. 2018 "On a physics-based model equation for shock-position evolution in PMMA" *AIP Conf. Proc.* 1979 160014
- Lin, W.H., Zhang, C., Fu, J. and Xin, H. 2018 "Dynamic mechanical behaviors of calcium silicate hydrate under shock compression loading using molecular dynamics simulation" *J. Non-Cryst. Solids* 500 482-486
- Lind, J., Jensen, B.J. and Kumar, M. 2018 "Towards in situ high precision local material velocity measurements in lattice materials under dynamic compression" *AIP Conf. Proc.* 1979 110008
- Ling, Z., Huang, X. and Dai, L. 2018 "Probe embryonic damage evolution in bulk metallic glasses under plate-impact loading" *EPJ Web Conferences* 183 03013
- Lipatnikova, Y.D., Belov, N.N., Yugov, N.T. and Starenchenko, V.A. 2018 "Dynamic strength of Ni<sub>3</sub>Al alloy plates under shock loads" *Russ. Phys. J.* 61 955-961
- Liu, Q.C., Zeng, X.L., Zhou, X.M. and Luo, S.N. 2018 "Hugoniot and refractive indices of bromoform under shock compression" *AIP Advances* 8 015013
- Liu, Q.C. and Zhou, X.M. 2018 "Time-resolved light emission of a, c, and r-cut sapphires shock-compressed to 65 GPa" *J. Appl. Phys.* 123 135902
- Liu, S.-G., Li, J.-B., Li, J., Xue, T., Tao, T.-J., Ma, H.-L., Wang, X., Weng, J.-D. and Li, Z.-R. 2018 "Simultaneous measurement of the dynamic emissivity and the radiance of the shocked Al/LiF interface in the near-infrared wavelength" *Rev. Sci. Instrum.* 89 044903
- Liu, H., Yu, X.D., Tan, C.W., Zhao, H.L. and Chen, X.J. 2018 "Spall microstructure characteristics and fracture mechanism of Ti6Al4V and Ti-47Nb alloys under dynamic high-pressure loading (in Chinese)" *Rare Metal Mater. Engng* 47 829-834
- Liu, W., Duan, X.X., Jiang, S.E., Wang, Z.B., Sun, L., Liu, H., Yang, W.M., Zhang, H., Ye, Q., Wang, P., Li, Y.L., Yi, L. and Dong, S. 2018 "Laser-driven shock compression of gold foam in the terapascal pressure range" *Phys. Plasmas* 25 062707

- Liu, X., Mashimo, T., Kawai, N., Sano, T. and Zhou, X.M. 2018 "Isotropic phase transition of single-crystal iron under shock compression" *J. Appl. Phys.* 124 215101
- Liu, C., Wu, Y., Zhang, X.F., Deng, J.J., Xu, C.Y., Xiong, W. and Tan, M.T. 2018 "Propagation of shock waves in dry and wet sandstone: Experimental observations, theoretical analysis and meso-scale modeling" *Defence Technol.* 14 513-521
- Liu, D.Y., Chen, L., Wang, C. and Wu, J.Y. 2018 "Aluminum acceleration and reaction characteristics for aluminized CL-20-based mixed explosives" *Propell. Explos. Pyrotech.* 43 543-551
- Loiseau, J., Georges, W., Frost, D.L. and Higgins, A.J. 2018 "Non-Gurney scaling of explosives heavily loaded with dense inert additives" *AIP Conf. Proc.* 1979 160015
- Lomonosov, I.V. 2018 "Wide-range equation of state for silver" *J. Phys. Conf. Ser.* 946 012081
- Luo, B., Mo, J., Wang, G., Tan, F., Zhao, J. and Sun, C. 2018 "Elastic behavior of zirconia under ramp compression" *EPJ Web Conferences* 183 03026
- Luo, B.Q., Jin, Y.S., Li, M., Zhao, J.H. and Sun, C.W. 2018 "Direct calculation of sound speed of materials under ramp wave compression" *AIP Advances* 8 115204
- Luong, D.D., Ansuini, L. and Gupta, N. 2018 "Dynamic response of syntactic foams and sandwich composites: Blast and high strain rate loading", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 171-190, (New York, Springer)
- Luscher, D.J., Kenamond, M.A., Hunter, A., Mayeur, J.R. and Mourad, H.M. 2018 "Implementation of a dislocation-density based single-crystal model into a continuum shock hydrodynamics code" *AIP Conf. Proc.* 1979 180006
- Lutovac, S., Gluscevic, B., Tokalic, R., Majstorovic, J. and Beljic, C. 2018 "Models of determining the parameters of rock mass oscillation equation with experimental and mass blastings" *Minerals* 8 doi: 10.3390/min8020070
- Madiedo, J.M., Ortiz, J.L. and Morales, N. 2018 "The first observations to determine the temperature of a lunar impact flash and its evolution" *Mon. Not. R. Astron. Soc.* 480 5010-5016
- Maerzke, K.A., Coe, J.D., Fredenburg, D.A., Lang, J.M. and Dattelbaum, D.M. 2018 "Equations of state and shock-driven chemistry in poly(dimethylsiloxane)-based foams" *AIP Conf. Proc.* 1979 090009
- Maevskii, K.K. and Kinelovskii, S.A. 2018 "Thermodynamic parameters of mixtures with epoxy as a component under shock wave loading" *J. Phys. Conf. Ser.* 946 012113



- Magne, S., Barbarin, Y., Lefrançois, A., Balberie, M., Sinatti, F., Osmont, A. and Woirin, K. 2018 "Real-time distributed monitoring of pressure and shock velocity by ultrafast spectrometry with chirped fiber Bragg gratings: Experimental vs calculated wavelength-to-pressure sensitivities in the range [0-4GPa]" J. Appl. Phys. 124 145902
- Maillet, J.-B., Denoual, C. and Csanyi, G. 2018 "Machine-learning based potential for iron: Plasticity and phase transition" AIP Conf. Proc. 1979 050011
- Maines, W.R., Kittell, D.E. and Hobbs, M.L. 2018 "Combined Mini-Cylex & disk acceleration tests in Type K copper" Propell. Explos. Pyrotech. 43 506-511
- Malyugina, S., Mokrushin, S., Mayorova, A., Kazakov, D., Kazelkov, O., Pavlenko, A. and Belyaev, D. 2018 "Incipience and development of spall fracture in 30KHGSA steel,  $\alpha \leftrightarrow \epsilon$  transformation, spall fracture and damage recovery" EPJ Web Conferences 183 03022
- Mandal, A., Jensen, B.J., Aslam, T.D. and Iverson, A.J. 2018 "Dynamic compaction of nickel powder examined by X-ray phase contrast imaging" AIP Conf. Proc. 1979 110010
- Manner, V.W., Podlesak, D.W., Huber, R.C., Amato, R.S., Giambra, A.M., Bowden, P.R., Hartline, E.L., Sorensen, C.J. and Dattelbaum, D.M. 2018 "Isotope-labeled composition B-3 for tracing detonation signatures" AIP Conf. Proc. 1979 100027
- Massabò, R. 2018 "Wave propagation and dynamic correction factors for composite structures", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 191-208, (New York, Springer)
- Matos, H., Gupta, S. and Shukla, A. 2018 "Structural instability and water hammer signatures from shock-initiated implosions in confining environments" Mech. Mater. 116 169-179
- Matveev, S.M., Basset, W.P., Dlott, D.D., Lee, E. and Maria, J.-P. 2018 "High throughput investigation of shocked reactive nanolaminates" AIP Conf. Proc. 1979 150028
- Mays, R.O., Tringe, J.W., Souers, P.C., Lauderbach, L.M., Baluyot, E.V., Converse, M.C. and Kane, R.J. 2018 "Experimental and computational investigation of microwave interferometry for detonation front characterization" AIP Conf. Proc. 1979 160016
- McGrane, S.D., Aslam, T.D., Pierce, T.H., Hare, S.J. and Byers, M.E. 2018 "Temperature of shocked plastic bonded explosive PBX 9502 measured with spontaneous Stokes/anti-Stokes Raman" J. Appl. Phys. 123 045902
- McGrane, S., Bowlan, P., Powell, M., Brown, K. and Bolme, C. 2018 "Broadband mid-infrared measurements for shock-induced chemistry" AIP Conf. Proc. 1979 130004

- Mello, M., Kettenbeil, C., Bischann, M. and Ravichandran, G. 2018 "Heterodyne diffracted beam photonic Doppler velocimeter (DPDV) for measurement of transverse and normal particle velocities in pressure-shear plate impact experiments" AIP Conf. Proc. 1979 160017
- Mendes, R., Campos, J., Quaresma, J., Gois, J. and Ribeiro, J. 2018 "Detonation in PBX based on RDX: Prediction properties and experimental measurements in a divergent detonation propagation configuration", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachman and J. Selesovsky, pp. 227-238, (Pardubice, Czech Republic, University of Pardubice)
- Merrill, M.H., Kindle, C.J. and Thomas, J.P. 2018 "Pressure sensing in clay: A new metric for characterizing the ballistic backface deformation response of personnel protection equipment", in "Dynamic Behavior of Materials", ed. J. Kimberley, L.E. Lamberson and S. Mates, pp. 189-192, (New York, Springer)
- Mertuszka, P., Nikolczuk, K., Wilk, Z., Florczak, B., Maranda, A., Fulawka, K., Suszka, J., Koslik, P. and Jozwik, P. 2018 "Detonation velocity of selected mining explosives using MicroTrap VOD/data recorder", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachman and J. Selesovsky, pp. 868-876, (Pardubice, Czech Republic, University of Pardubice)
- Mhamed, S., Du Boise, P. and Al-Bahkali, E. 2018 "Numerical shock viscosity for impact analysis using ALE formulation" Comput. Model. Engng Sci. 117 91-107
- Miao, F., Zhou, L., Zhang, X. and Cao, T. 2018 "Simulation of shock initiation in explosives using a model combining high computational efficiency with a free choice of mixture rules" AIP Advances 8 125022
- Michael, L. and Nikofarakis, N. 2018 "The evolution of the temperature field during cavity collapse in liquid nitromethane. 1: Inert case" Shock Waves doi: 10.1007/s00193-018-0802-8
- Michael, L. and Nikofarakis, N. 2018 "The evolution of the temperature field during cavity collapse in liquid nitromethane. 2: Reactive case" Shock Waves doi: 10.1007/s00193-018-0803-7
- Michel, D.T., Igumenshchev, I.V., Davis, A.K., Edgell, D.H., Froula, D.H., Jacobs-Perkins, D.W., Goncharov, V.N., Regan, S.P., Shvydky, A. and Campbell, E.M. 2018 "Subpercent-scale control of 3D low modes of targets imploded in direct-drive configuration on OMEGA" Phys. Rev. Letts 120 125001
- Mikheev, D., Annikov, V., Soboleva, L. and Akinin, N. 2018 "Influence of the sizes of gunpowder units reused in industrial water-gel explosives on detonation characteristics", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachman and J. Selesovsky, pp. 891-894, (Pardubice, Czech Republic, University of Pardubice)
- Miller, E.K., Larson, E. and Lee, K. 2018 "Shot noise and fiber amplifier effects in photonic-Doppler velocimetry systems" AIP Conf. Proc. 1979 160018

- Millett, J.C.F., Higgins, D.L., Whiteman, G., Pang, B., Chiu, Y.-L. and Jones, I.P. 2018 "Contrasting the effects of cold rolling on the shock response of typical fcc and bcc metals" AIP Conf. Proc. 1979 060004
- Millett, J.C.F., Gray III, G.T., Whiteman, G., Fensin, S. and Owen, G. 2018 "The mechanical response of pre-shocked aluminium single crystals" EPJ Web Conferences 183 02010
- Millot, M., Celliers, P.M., Sterne, P.A., Benedict, L.X., Correa, A.A., Hamel, S., Ali, S.J., Baker, K.L., Hopkins, L.F.B., Biener, J., Collins, G.W., Coppari, F., Divol, L., Fernandez-Panella, A., Fratanduono, D.E., Haan, S.W., Le Pape, S., Meezan, N.B., Moore, A.S., Moody, J.D., Ralph, J.E., Ross, J.S., Rygg, J.R., Thomas, C., Turnbull, D.P., Wild, C. and Eggert, J.H. 2018 "Measuring the shock impedance mismatch between high-density carbon and deuterium at the National Ignition Facility" Phys. Rev. B 97 144108
- Min, S.H. and Berkowitz, M.L. 2018 "A comparative computational study of coarse-grained and all-atom water models in shock Hugoniot states" J. Chem. Phys. 148 144504
- Mitra, N. 2018 "Explosion-induced shock waves through a medium and associated structural response", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 119-130, (New York, Springer)
- Mokrushin, S.S., Mayorova, A.S., Malyugina, S.N., Pavlenko, A.V., Sagaradze, V.V., Kataeva, N.V. and Volkova, E.G. 2018 "Dynamic properties of reactor steels Kh16N15M3T1 and Kh13V2 under shock-wave loading of submicrosecond scale" EPJ Web Conferences 183 02048
- Moore, A.P., Lim, H., Brown, J.L. and Lane, J.M.D. 2018 "Molecular scale study of the plastic response of tantalum under ramp compression and release" AIP Conf. Proc. 1979 050013
- Moore, D.S. 2018 "Probing dynamic processes in explosives and propellants: Science issues" AIP Conf. Proc. 1979 100028
- Moore, A.P., Brown, J.L., Lim, H. and Lane, J.M.D. 2018 "Verification of experimental dynamic strength methods with atomistic ramp-release simulations" Phys. Rev. Mater. 2 053601
- Morris, M.A. and Boley, A.C. 2018 "Formation of chondrules by shock waves", in "Chondrules: Records of Protoplanetary Disk Processes", ed. S.S. Russell, H.C. Connolly and A.N. Krot, pp. 375-399, (Cambridge, Cambridge University Press)
- Morrow, B.M., Jones, D.R., Rigg, P.A., Gray III, G.T. and Cerreta, E.K. 2018 "In-situ experiments to capture the evolution of microstructure during phase transformation of titanium under dynamic loading" EPJ Web Conferences 183 03020

- Mukherjee, D., Sahoo, B.D., Joshi, K.D. and Kaushik, T.C. 2018 "Equation of state of U2Mo up-to Mbar pressure range: Ab initio study" AIP Conf. Proc. 1942 030013
- Mulligan, P. 2018 "Shock wave interaction with a cylindrical structure" AIP Conf. Proc. 1979 160019
- Murphy, M.J., Lieber, M.A. and Biss, M.M. 2018 "Novel measurements of shock pressure decay in PMMA using detonator loading" AIP Conf. Proc. 1979 160020
- Murzov, S. and Zhakhovsky, V. 2018 "Hotspots from atomistic simulation to mesoscopic hydrodynamics modeling" AIP Conf. Proc. 1979 100029
- Myint, P.C. and Belof, J.L. 2018 "Rapid freezing of water under dynamic compression" J. Phys.: Condens. Matter 30 233002
- Nabiei, F., Badro, J., Dennenwaldt, T., Oveisi, E., Cantoni, M., Hébert, C., El Goresy, A., Barrat, J.-A. and Gillet, P. 2018 "A large planetary body inferred from diamond inclusions in a ureilite meteorite" Nature Commun. 9 doi: 10.1038/s41467-018-03808-6
- Naik, D.C. and Kumar, R.V. 2018 "Helicopter main rotor blade root end under high velocity bird impact" Materials Today Proceedings 5 4653-4668
- Najjar, F.M. 2018 "Mesoscale simulations of shock-particle interactions in near-wall proximity" AIP Conf. Proc. 1979 080009
- Nandlall, D. and Gakwaya, A. 2018 "On the determination of the shock and steady state parameters of gelatine from cylinder impact experiments" Int. J. Impact Engng 116 22-33
- Nath, S., Shukla, P., Shen, X.J. and Lawrence, J. 2018 "Effect of laser shock peening (LSP) on the phase evolution, residual stress and hardness of Hastelloy-X superalloys" Lasers Engineering 39 97-112
- Navarro, P.F., Benson, D.J. and Nesterenko, V.F. 2018 "Behavior of short and long high amplitude pulses on an aluminum-tungsten composite with cylindrical inclusions" AIP Conf. Proc. 1979 110012
- Nayak, B. and Menon, S.V.G. 2018 "Enthalpy-based equation of state for highly porous materials employing modified soft sphere fluid model" Physica B 529 66-72
- Nayak, B. and Menon, S.V.G. 2018 "Non-equilibrium theory employing enthalpy-based equation of state for binary solid and porous mixtures" Shock Waves 28 141-151
- Neal, W., Sanchez, N., Jensen, B., Gibson, J., Romero, J., Martinez, M., Owens, C., Jaramillo, D., Iverson, A., Carlson, C., Teel, M., Derry, A. and Rigg, P. 2018 "The effect of surface heterogeneities in exploding metal foils" AIP Conf. Proc. 1979 180007
- Needham, C.E., ed. 2018 "Blast Waves" (New York, Springer)
- Needham, C.E. 2018 "The Rankine-Hugoniot relations", in "Blast Waves", pp. 9-17, (Berlin, Springer)

- Needham, C.E. 2018 "Ideal high explosive detonation waves", in "Blast Waves", pp. 41-71, (Berlin, Springer)
- Needham, C.E. 2018 "Measurement techniques", in "Blast Waves", pp. 163-182, (Berlin, Springer)
- Nelms, M., Hodo, W., Livi, K.J.T., Browning, A., Crawford, B. and Rajendran, A.M. 2018 "Shock wave propagation in functionally graded mineralized tissue" AIP Conf. Proc. 1979 060005
- Newman, M.G., Kraus, R.G., Akin, M.C., Bernier, J.V., Dillman, A.M., Homel, M.A., Lee, S., Lind, J., Mosenfelder, J.L., Pagan, D.C., Sinclair, N.W. and Asimow, P.D. 2018 "In situ observations of phase changes in shock-compressed forsterite" Geophys. Res. Letts 45 8129-8135
- Nishida, M., Hayashi, K. and Higashide, M. 2018 "Effects of projectile diameter and specimen thickness on size distribution of ejecta resulting from carbon fiber reinforced plastic plates in hypervelocity impacts" J. Soc. Mater. Sci. Japan 67 445-451
- Nishimura, N., Ito, T. and Watanabe, T. 2018 "Ultrasonic detection of spall damage distribution subjected to plate impact test with different thickness" EPJ Web Conferences 183 02029
- Nissen, E.J. and Dlott, D.D. 2018 "Molecular probing of shocked rhodamine 6G in liquid water" AIP Conf. Proc. 1979 100030
- O'Connor, T.C., Elder, R.M., Sliozberg, Y.R., Sirk, T.W., Andzeim, J.W. and Robbins, M. 2018 "Molecular origins of anisotropic shock propagation in crystalline and amorphous polyethylene" Phys. Rev. Mater. 2 035601
- Oguri, R. and Ando, K. 2018 "Cavitation bubble nucleation induced by shock-bubble interaction in a gelatin gel" Phys. Fluids 30 051904
- Oksuzoglu, H. 2018 "Higher-order jump conditions for conservation laws" Theor. Comput. Fluid Dynamics 32 399-409
- Olbinado, M.P., Cantelli, V., Mathon, O., Pascarelli, S., Grenzer, J., Pelka, A., Roedel, M., Prencipe, I., Garcia, A.L. and Helbig, U. 2018 "Ultra high-speed X-ray imaging of laser-driven shock compression using synchrotron light" J. Phys. D: Appl. Phys. 51 055601
- Oliveira, E.F., Autreto, P.A.D.S. and Galvão, D.S. 2018 "On hardening silver nanocubes by high-velocity impacts: A fully atomistic molecular dynamics investigation" J. Mater. Sci. 53 7486-7492
- Orlov, M., Orlov, Y., Glazyrin, V. and Orlova, Y. 2018 "Investigation of the behaviour of functionally graded materials under impact loads" EPJ Web Conferences 183 01049
- Osinski, G.R., Grieve, R.A.F., Bleacher, J.E., Neish, C.D., Pilles, E.A. and Tornabene, L.L. 2018 "Igneous rocks formed by hypervelocity impact" J. Volcanology Geotherm. Res. 353 25-54

- Osnes, K., Børvik, T. and Hopperstad, O.S. 2018 "Shock tube testing and modelling of annealed float glass" EPJ Web Conferences 183 01035
- Ota, T.A., Chapman, D.J., Richley, J.C. and Eakins, D.E. 2018 "Initial results from a simultaneous pyrometry and reflectivity diagnostic" AIP Conf. Proc. 1979 130005
- Pang, B., Case, S., Jones, I.P., Millett, J.C.F., Whiteman, G., Chiu, Y.L. and Bronkhorst, C.A. 2018 "The defect evolution in shock-loaded tantalum single crystals" Acta mater. 148 482-491
- Paramonov, M.A., Minakov, D.V. and Levashov, P.R. 2018 "Reconstruction of release isentropes based on first-principle simulations" J. Phys. Conf. Ser. 946 012089
- Paris, V., Cohen, A., Gudinetsky, E., Hevroni, R., Samuha, S., Osovsky, S., Tiferet, E. and Yosef-Hai, A. 2018 "Study of flow stress and spall strength of additively manufactured Ti-6-4 alloy" EPJ Web Conferences 183 03003
- Park, S.D., Armstrong, M.R., Kohl, I.T., Zaug, J.M., Knepper, R., Tappan, A.S., Bastea, S. and Kay, J.J. 2018 "Ultrafast shock-induced reactions in PETN thin films" J. Phys. Chem. A 122 8101-8106
- Partom, Y. 2018 "Modeling gradual and rate dependent closing and opening of pores in porous materials under dynamic loading" AIP Conf. Proc. 1979 110013
- Patil, S.P., Murkute, R., Shirafkan, N. and Markert, B. 2018 "Deformation of stacked metallic sheets by shock wave loading" Metals 8 doi: 10.3390/met8090679
- Pepper, J.E., Huneault, J., Rahmat, M. and Petel, O.E. 2018 "Spall strength measurements in EPON 828 epoxy and an epoxy/carbon nanotube composite" AIP Conf. Proc. 1979 070024
- Perrin, G. and Pillon, L. 2018 "Calibration of Johnson's damage model by a Bayesian approach" EPJ Web Conferences 183 01037
- Perriot, R., Negre, C.F.A., McGrane, S.D. and Cawkwell, M.J. 2018 "Density functional tight binding calculations for the simulation of shocked nitromethane with LATTE-LAMMPS" AIP Conf. Proc. 1979 050014
- Piehler, T., Zander, N., Banton, R., Benjamin, R., Sparks, R., Byrnes, K., Duckworth, J. and Bahr, B.A. 2018 "High-speed imaging techniques to study effects of pressure waves from detonating explosive charges on biological materials", in "Dynamic Behavior of Materials", ed. J. Kimberley, L.E. Lamberson and S. Mates, pp. 123-126, (New York, Springer)
- Pilles, E.A., Osinski, G.R., Grieve, R.A.F., Smith, D. and Bailey, J. 2018 "Formation of large-scale impact melt dikes: A case study of the Foy Offset Dike at the Sudbury impact structure, Canada" Earth Planet Sci. Letts 495 224-233
- Pittman, E.R., Hagelberg, C.R., Gustavsen, R.L. and Aslam, T.D. 2018 "Gas gun experiments and numerical simulations on the HMX-based explosive PBX 9501 in the overdriven regime" AIP Conf. Proc. 1979 150032

- Polsin, D.N., Fratanduono, D.E., Rygg, J.R., Lazicki, A., Smith, R.F., Eggert, J.H., Gregor, M.C., Henderson, B.J., Delettrez, J.A., Kraus, R.G., Celliers, P.M., Coppari, F., Swift, D.C., McCoy, C.A., Seagle, C.T., Davis, J.-P., Burns, S.J., Collins, G.W. and Boehly, T.R. 2018 "Erratum: Measurement of bcc aluminum at 475 GPa" Phys. Rev. Letts 120 029902
- Polsin, D.N., Fratanduono, D.E., Rygg, J.R., Lazicki, A., Smith, R.F., Eggert, J.H., Gregor, M.C., Henderson, B.J., Gong, X., Delettrez, J.A., Kraus, R.G., Celliers, P.M., Coppari, F., Swift, D.C., McCoy, C.A., Seagle, C.T., Davis, J.-P., Burns, S.J., Collins, G.W. and Boehly, T.R. 2018 "X-ray diffraction of ramp-compressed aluminum to 475GPa" Phys. Plasmas 25 082709
- Pontalier, Q., Lhoumeau, M. and Frost, D.L. 2018 "Blast wave mitigation in granular materials" AIP Conf. Proc. 1979 110014
- Popova, T.V., Mayer, A.E. and Khishchenko, K.V. 2018 "Evolution of shock compression pulses in PMMA and aluminum" J. Appl. Phys. 123 235902
- Poulin, M., Viau, C., Lacroix, D.N. and Doudak, G. 2018 "Experimental and analytical investigation of cross-laminated timber panels subjected to out-of-plane blast loads" ASCE J. Struct. Engng 144 04017197
- Pradel, P., Malaise, F., de Rességuier, T., Delhomme, C., Cadilhon, D., Quessada, J.H. and Le Blanc, G. 2018 "Stress wave propagation and mitigation in two polymeric foams" AIP Conf. Proc. 1979 110015
- Pradel, P., Malaise, F., de Rességuier, T., Delhomme, C., Le Blanc, G. and Quessada, J.H. 2018 "Dynamic compaction of polyurethane foam: Experiments and modelling" EPJ Special Topics 227 3-16
- Pradel, P., Malaise, F. and de Rességuier, T. 2018 "Laser-driven shock experiments to investigate mitigation ability of polymeric foams" EPJ Web Conferences 183 01045
- Preising, M., Lorenzen, W., Becker, A., Redmer, R., Knudson, M.D. and Desjarlais, M.P. 2018 "Equation of state and optical properties of warm dense helium" Phys. Plasmas 25 012706
- Price, M.A., Aslam, T.D. and Quirk, J.J. 2018 "Analysis of steady compaction waves in polyurea aerogel" AIP Conf. Proc. 1979 110016
- Prime, M.B. 2018 "Strain rate sensitivity of Richtmyer-Meshkov instability experiments for metal strength", in "Dynamic Behavior of Materials", ed. J. Kimberley, L.E. Lamberson and S. Mates, pp. 13-16, (New York, Springer)
- Promakhov, V.V., Savinykh, A.S., Dubkova, Y.A., Schulz, N.A., Grunt, N.V. and Razorenov, S.V. 2018 "Strength properties of aluminum-oxide ceramics prepared by the additive manufacturing method under shock-wave loading" Tech. Phys. Letts 44 898-901

- Prudhomme, G., Franzkowiak, J.-E., de Ressaiguiet, T., Brambrink, E., Roland, C., Loison, D., Lescoute, E. and Sollier, A. 2018 "Ejecta from periodical grooves in tin foils under laser-driven shock loading" AIP Conf. Proc. 1979 080010
- Qian, W. and Liu, J. 2018 "The blocking effects of inert impurities on thermomechanical response of  $\alpha$ -RDX under shock stimuli: A CGMD study", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachman and J. Selesovsky, pp. 945-953, (Pardubice, Czech Republic, University of Pardubice)
- Rae, P., Haroz, E., Armstrong, C. and Perry, L. 2018 "An experimental study of an explosively driven flat-plate launcher" AIP Conf. Proc. 1979 160021
- Ramsey, S.D., Schmidt, E.M., Boyd, Z.M., Lilieholm, J.F. and Baty, R.S. 2018 "Converging shock flows for a Mie-Gruneisen equation of state" Phys. Fluids 30 046101
- Rav, A., Joshi, K.D., Singh, K. and Kaushik, T.C. 2018 "Characterization of a signal recording system for accurate velocity estimation using a VISAR" Meas. Sci. Technol. 29 025205
- Ravindran, S., Malchow, P., Tessema, A. and Kidane, A. 2018 "Compaction wave propagation characteristics in PBXs at macro-meso scale", in "Dynamic Behavior of Materials", ed. J. Kimberley, L.E. Lamberson and S. Mates, pp. 163-168, (New York, Springer)
- Ravindran, S., Koohbor, B., Malchow, P. and Kidane, A. 2018 "Experimental characterization of compaction wave propagation in cellular polymers" Int. J. Solids Structures 139 270-282
- Razorenov, S.V. 2018 "Influence of structural factors on the strength properties of aluminum alloys under shock wave loading" Matter Radiation Extremes 3 145-158
- Reeves, R.V., Egan, G.C., Klunder, G.L., Manaa, M.R. and Bastea, S. 2018 "An experimental characterization of condensed phase soot from overdriven detonation of Composition B" AIP Conf. Proc. 1979 100033
- Rehagen, T.J. and Vitello, P. 2018 "Improved reactive flow modeling of the LX-17 double shock experiments" AIP Conf. Proc. 1979 100034
- Rejovitzky, E. 2018 "A mesoscopic model for compression of granular materials" EPJ Web Conferences 183 01054
- Ren, Y., Xue, Z., Luo, W., Ren, Y. and Zhang, Y. 2018 "Effect of shock stress amplitude on the post-shock mechanical response and substructural evolution of Ti6Al4V alloy" Mech. Mater. 117 1-8
- Ren, J., Xu, Y.X., Zhao, X.X. and Zhao, P.D. 2018 "Dynamic mechanical behaviors and failure thresholds of ultra-high strength low-alloy steel under strain rate 0.001/s to 10<sup>6</sup>/s" Mater. Sci. Engng A 719 178-191



- Resnyansky, A.D. 2018 "Mesoscale modelling of the heat conductivity effect on the shock response of a porous material" AIP Conf. Proc. 1979 110017
- Richley, J.C. and Ferguson, J.W. 2018 "Results from a high speed pyrometer measuring detonating explosive" AIP Conf. Proc. 1979 160022
- Rigby, S.E., Fay, S.D., Tyas, A., Clarke, S.D., Reay, J.J., Warren, J.A., Gant, M. and Elgy, I. 2018 "Influence of particle size distribution on the blast pressure profile from explosives buried in saturated soils" Shock Waves 28 613-626
- Riller, U., Poelchau, M.H., Rae, A.S.P., Schulte, F.M., Collins, G.S., Melosh, H.J., Grieve, R.A.F., Morgan, J.V., Gulick, S.P.S., Lofi, J., Diaw, A., McCall, N. and Kring, D.A. 2018 "Rock fluidization during peak-ring formation of large impact structures" Nature 562 511-518
- Ringstrand, B.S., Mogavero, B., Despard, J.T., Firestone, M. and Podlesak, D. 2018 "Discontinuous density gradient fractionation of detonation soot for complete nanocarbon characterization" AIP Conf. Proc. 1979 100035
- Roland, C., de Rességuier, T., Sollier, A., Lescoute, E., Tandieng, D., Toulminet, M. and Soulard, L. 2018 "Ballistic properties of ejecta from a laser shock-loaded groove: SPH versus experiments" AIP Conf. Proc. 1979 080012
- Rolfe, E., Arora, H., Hooper, P.A. and Dear, J.P. 2018 "Hybrid composite sandwich panels under blast and impact loading" EPJ Web Conferences 183 02003
- Rolfe, E., Kelly, M., Arora, H., Hooper, P.A. and Dear, J.P. 2018 "Blast performance and damage assessment of composite sandwich structures", in "Blast Mitigation Strategies in Marine Composite and Sandwich Structures", ed. S. Gopalakrishnan and Y. Rajapakse, pp. 209-225, (New York, Springer)
- Root, S., Townsend, J.P., Davies, E., Lemke, R.W., Bliss, D.E., Fratanduono, D.E., Kraus, R.G., Millot, M., Spaulding, D.K., Shulenburger, L., Stewart, S.T. and Jacobsen, S.B. 2018 "The principal Hugoniot of Forsterite to 950 GPa" Geophys. Res. Letts 45 3865-3872
- Rudd, R.E., Yang, L.H., Powell, P.D., Graham, P., Arsenlis, A., Cavallo, R.M., Krygier, A.G., McNaney, J.M., Prisbrey, S.T., Remington, B.A., Swift, D.C., Wehrenberg, C.E. and Park, H.-S. 2018 "Modeling laser-driven high-rate plasticity in bcc lead" AIP Conf. Proc. 1979 070027
- Russell, S.S., Connolly, H.C. and Krot, A.N., Eds. 2018 "Chondrules: Records of Protoplanetary Disk Processes" (Cambridge, Cambridge University Press)
- Sagnard, M., Berthe, L., Ecault, R., Touchard, F., Boustie, M. and Brune, K. 2018 "Development of the symmetrical laser shock test for weak bond inspection" AIP Conf. Proc. 1979 070030
- Samuels, P., Spangler, K., Iwaniuk, D., Cornell, R., Baker, E.L. and Stiel, L.I. 2018 "Detonation performance analyses for recent energetic molecules" AIP Conf. Proc. 1979 150033

- Sanchez, N.J., Jensen, B.J., Neal, W.D., Iverson, A.J. and Carlson, C.A. 2018 "Dynamic exploding foil initiator imaging at the advanced photon source" AIP Conf. Proc. 1979 160023
- Sanders, I.S. and Scott, E.R.D. 2018 "Making chondrules by splashing molten planetesimals: The dirty impact plume model", in "Chondrules: Records of Protoplanetary Disk Processes", ed. S.S. Russell, H.C. Connolly and A.N. Krot, pp. 361-374, (Cambridge, Cambridge University Press)
- Sandusky, H.W., Church, S.R. and Felts, J.E. 2018 "Detonation states without a transition in the super large scale gap test" AIP Conf. Proc. 1979 100036
- Sauer, C., Bagusat, F., Heine, A. and Werner, R. 2018 "Plate impact shock experiments and numerical modeling of lightweight adobe masonry material" EPJ Web Conferences 183 01017
- Saunders, A.M., Chapman, D.A., Kritcher, A.L., Schoff, M., Shulberg, C., Landen, O.L., Glenzer, S.H., Falcone, R.W., Gericke, D.O. and Döppner, T. 2018 "Influence of argon impurities on the elastic scattering of X-rays from imploding beryllium capsules" High Energy Density Phys. 26 86-92
- Savinykh, A.S., Mandel, K., Razorenov, S.V. and Kruger, L. 2018 "The influence of the cobalt content on the strength properties of tungsten carbide ceramics under dynamic loads" Tech. Phys. 63 357-362
- Savinykh, A.S., Garkushin, G.V., Kanel, G.I. and Razorenov, S.V. 2018 "Method of measurement of the dynamic strength of concrete under explosive loading" Int. J. Fract. 209 109-115
- Schauer, M.M., Buttler, W.T., Sorenson, D., Frayer, D., Grover, M., Lalone, B., Stevens, G.D. and Turley, W.D. 2018 "Constraining ejecta particle size distributions with light scattering" AIP Conf. Proc. 1979 080013
- Schulze, P.A., Brooks, T.J., Tasker, D.G., Biss, M.M. and Preston, D.N. 2018 "Assessing detonator health using Rogowski coil data" AIP Conf. Proc. 1979 160024
- Schwaab, M., Greendyke, R. and Steward, B. 2018 "Arrhenius rate chemistry-informed inter-phase source terms (ARCIIST)" AIP Conf. Proc. 1979 100037
- Scripka, D.A., Lee, G., Kang, Z., Summers, C.J. and Thadhani, N.N. 2018 "Time-resolved spectral response of asymmetrical optical microcavity structures under laser-driven shock compression" AIP Advances 8 015021
- Seagle, C.T. and Porwitzky, A.J. 2018 "Shock-ramp compression of tin near the melt line" AIP Conf. Proc. 1979 040005
- Seiboth, F., Fletcher, L.B., McGonegle, D., Anzellini, S., Dresselhaus-Cooper, L.E., Frost, M., Galtier, E., Goede, S., Harmand, M., Lee, H.j., Levitan, A.L., Miyanishi, K., Nagler, B., Nam, I., Ozaki, N., Rödel, M., Schropp, A., Spindloe, C., Sun, P., Wark, J.S., Hastings, J., Glenzer, S.H. and McBride, E.E. 2018 "Simultaneous 8.2 keV phase-contrast imaging and 24.6 keV X-ray diffraction from shock-compressed matter at the LCLS" Appl. Phys. Letts 112 221907

- Shao, J.L., He, A.M. and Wang, P. 2018 "Atomistic simulations on the dynamic properties of shock and release melting in single crystal aluminum" *Comput. Mater. Sci.* 151 240-245
- Shcheblanov, N.S., Povarnitsyn, M.E., Mishchik, K.N. and Tanguy, A. 2018 "Raman spectroscopy of femtosecond multipulse irradiation of vitreous silica: Experiment and simulation" *Phys. Rev. B* 97 054106
- Shcherbakov, I.P., Vettegren, V.I., Bashkarev, A.Y. and Mamalimov, R.I. 2018 "Transformation of the surface structure of marble under the action of a shock wave" *Tech. Phys.* 63 78-82
- Shinas, M.A. and Doty, D.L. 2018 "1550nm fiber optic TOAD (time of arrival diagnostic) for measuring sub-nanosecond resolution of detonation break out" *AIP Conf. Proc.* 1979 160025
- Short, M. and Quirk, J.J. 2018 "High explosive detonation–confiner interactions" *Ann. Rev. Fluid Mech.* 50 215-242
- Shu, H., Tu, Y.C., Wang, J.Y., Jia, G., Ye, J.J., Deng, W., Shu, H.Y., Yang, Y.P., Du, X.Y. and Xie, Z.Y. 2018 "Material equation of state by coupling static and dynamic loading (in Chinese)" *Acta Phys. Sinica* 67 064101
- Sirignano, W.A. 2018 "Normal shocks with high upstream pressure" *Phys. Rev. Fluids* 3 093401
- Sjostrom, T. and Crockett, S. 2018 "Quantum molecular dynamics of warm dense iron and a five-phase equation of state" *Phys. Rev. E* 97 053209
- Sliwa, M., McGonegle, D., Wehrenberg, C., Bolme, C.A., Heighway, P.G., Higginbotham, A., Lazicki, A., Lee, H.J., Nagler, B., Park, H.S., Rudd, R.E., Suggit, M.J., Swift, D., Tavella, F., Zepeda-Ruiz, L., Remington, B.A. and Wark, J.S. 2018 "Femtosecond X-ray diffraction studies of the reversal of the microstructural effects of plastic deformation during shock release of tantalum" *Phys. Rev. Letts* 120 265502
- Smith, D.K., Francois, E., Nakamoto, T., Tasker, D., Trujillo, C. and Wilde, Z. 2018 "Modeled diagnostics for detonator characterization" *AIP Conf. Proc.* 1979 100038
- Smith, J.A., Lacy, J.M., Scott, C.L., Benefiel, B.C., Levesque, D., Monchalain, J.P. and Lord, M. 2018 "Further investigation of surface velocity measurements for material characterization in laser shockwave experiments" *AIP Conf. Proc.* 1949 180001
- Sochet, I., ed., 2018 "The Rankine-Hugoniot Equations: Their Extensions and Inversions Related to Blast Waves" (New York, Springer)
- Sochet, I., ed., 2018 "Blast Effects: Physical Properties of Shock Waves" (New York, Springer)
- Sochet, I. 2018 "Blast wave experiments of high explosives", in "Blast Effects: Physical Properties of Shock Waves", ed. I. Sochet, pp. 113-120, (New York, Springer)

- Song, Q., Wang, C., Han, Y. and Gao, D. 2018 "Effect of vertical concentration gradient on globally planar detonation with detailed reaction mechanism", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 307-317, (Pardubice, Czech Republic, University of Pardubice)
- Sosikov, V.A., Torunov, S.I., Utkin, A.V., Mochalova, V.M. and Rapota, D.Y. 2018 "Experimental investigation of detonation waves instabilities in liquid high explosives" J. Phys. Conf. Ser. 946 012058
- Springer, H.K., Tarver, C.M., Gambino, J.R., White, B.W., Sullivan, K.T. and Gash, A.E. 2018 "Numerical study on tailoring the shock sensitivity of TATB-based explosives using sub-millimeter features" AIP Conf. Proc. 1979 180009
- Stankovic, S., Skrllec, V., Dobrilovic, M. and Bohanek, V. 2018 "Velocity of detonation of ammonium nitrate base blasting agent with addition of hay and recycled rubber", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 1042-1050, (Pardubice, Czech Republic, University of Pardubice)
- Steinhauser, M.O. 2018 "Multiscale Modeling and Simulation of Shock Wave-Induced Failure in Materials Science" (Berlin, Springer)
- Steinhauser, M.O. 2018 "What are shock waves?", in "Multiscale Modeling and Simulation of Shock Wave-Induced Failure in Materials Science", pp. 7-46, (Berlin, Springer)
- Steinhauser, M.O. 2018 "Shock wave failure in granular materials", in "Multiscale Modeling and Simulation of Shock Wave-Induced Failure in Materials Science", pp. 81-114, (Berlin, Springer)
- Stekovic, S., Nissen, E.J., Bhowmick, M., Stewart, D.S. and Dlott, D.D. 2018 "Numerical predictions of shock propagation through unreactive and reactive liquids with experimental validation" AIP Conf. Proc. 1979 100039
- Sternberger, Z., Opachich, Y.P., Wehrenberg, C.E., Kraus, R.G., Remington, B.A., Alexander, N., Randall, G., Farrell, M. and Ravichandran, G. 2018 "Investigation of hydrodynamic instability growth in copper" Int. J. Mech. Sci. 149 475-480
- Stevens, G.D., Scharff, R.J., Lang, J.M., La Lone, B.M., Turley, W.D. and Veaser, L.R. 2018 "Dynamic reflectance changes in high-purity zirconium when it is shocked from the alpha to omega phase" J. Appl. Phys. 124 185105
- Stewart, C., Balachandar, S. and McGrath, T.P. 2018 "Soft-sphere simulations of a planar shock interaction with a granular bed" Phys. Rev. Fluids 3 034308
- Stillman, C.R., Nilson, P.M., Sefkow, A.B., Ivancic, S.Y., Milehma, C., Begishev, I.A. and Froula, D.H. 2018 "Energy transfer dynamics in strongly inhomogeneous hot-dense-matter systems" Phys. Rev. E 97 063208

- Strickland, S.L., Vandersall, K.S. and DeHaven, M.R. 2018 "Investigating the deflagration to detonation transition in LLM-105 and RX-55-DQ using high confinement as a function of density" AIP Conf. Proc. 1979 150038
- Stull, J.A., Thompson, D.G., Woznick, C. and DeLuca, R. 2018 "Instrumented pressing of inert powders to study the effect of particle size" AIP Conf. Proc. 1979 060008
- Su, R., Li, L., Wang, Y.D., Nie, Z.H., Ren, Y., Zhou, X. and Wang, J. 2018 "Intergranular stress study of TC11 titanium alloy after laser shock peening by synchrotron-based high-energy X-ray diffraction" AIP Advances 8 055126
- Sun, Y. 2018 "Analysis of non-ideal detonation behaviour based on analog system", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 327-333, (Pardubice, Czech Republic, University of Pardubice)
- Sun, Y.L. and Li, Q.M. 2018 "Dynamic compressive behaviour of cellular materials: A review of phenomenon, mechanism and modelling" Int. J. Impact Engng 112 74-115
- Sutherland, G., Sable, P. and Borg, J. 2018 "Simulations of disk acceleration experiments" AIP Conf. Proc. 1979 100040
- Svingala, F.R., Giannuzzi, P.M. and Sandusky, H.W. 2018 "Simple explosive plane wave booster designs for 1D shock experiments" AIP Conf. Proc. 1979 160027
- Swift, D.C., Kritcher, A.L., Hawreliak, J.A., Lazicki, A., MacPhee, A., Bachmann, B., Döppner, T., Nilsen, J., Collins, G.W., Glenzer, S., Rothman, S.D., Kraus, D. and Falcone, R.W. 2018 "Absolute Hugoniot measurements from a spherically convergent shock using X-ray radiography" Rev. Sci. Instrum. 89 053505
- Tadini, P., Gault, K. and Sochet, I. 2018 "Shock wave overpressure measurement: Comparison between two piezoelectric sensor materials", in "Blast Effects: Physical Properties of Shock Waves", ed. I. Sochet, pp. 57-72, (New York, Springer)
- Takayama, K. 2018 "Visualization of underwater shock waves", in "The Micro-World Observed by Ultra High-Speed Cameras", ed. K. Tsuji, pp. 157-182, (Berlin, Springer)
- Tan, L. 2018 "Effect of monoammonium phosphate on the thermal stability and detonation characteristics of ammonium nitrate", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 1095-1102, (Pardubice, Czech Republic, University of Pardubice)
- Tan, Y., Li, X., Yu, Y. and Jin, K. 2018 "Research on phase transition and strength under ramp compression with graded density impactor" EPJ Web Conferences 183 02058

- Tang, J., Gu, Y.J., Chen, Q.F., Li, Z.G., Zheng, J., Li, C.J. and Li, J.T. 2018 "Multiple shock reverberation compression of dense neon up to the warm dense regime: Evaluating the theoretical models" *Phys. Rev. B* 97 140101
- Tappan, A.S., Yarrington, C.D. and Knapper, R. 2018 "Detonation corner turning in vapor-deposited explosives using the micromushroom test" *AIP Conf. Proc.* 1979 100041
- Tappan, B.C., Bowden, P.R., Lichthardt, J.P., Schmitt, M.M. and Hill, L.G. 2018 "Evaluation of the detonation performance of insensitive explosive formulations based on DAAF and NTO" *J. Energ. Mater.* 36 169-178
- Tarasov, A.E., Badamshina, E.R., Anokhin, D.V., Razorenov, S.V. and Vakorina, G.S. 2018 "The effect of small additions of carbon nanotubes on the mechanical properties of epoxy polymers under static and dynamic loads" *Tech. Phys.* 63 32-40
- Tarver, C.M. 2018 "Ignition and growth reactive flow modeling of detonating LX-04 using recent and older experimental data" *AIP Conf. Proc.* 1979 100042
- Tasker, D., Bowden, P., François, E., Gibson, J., Nakamoto, T., Smith, D., Trujillo, C. and Wilde, Z. 2018 "Rogowski coils for studies of detonator initiation and other diagnostics" *AIP Conf. Proc.* 1979 160028
- Taylor, N., Williamson, D., Gould, P. and Cullis, I. 2018 "High-rate experiments on a nitrocellulose/nitroglycerine propellant" *AIP Conf. Proc.* 1979 100043
- Tear, G.R., Chapman, D.J., Proud, W.G., Ottley, P.R., Cullis, I.G., Gould, P.J. and Jones, A.W. 2018 "The use of PDV to understand damage in rocket motor propellants" *AIP Conf. Proc.* 1979 160029
- Theodoro, F.R.F., Reis, M.L.C.C. and D'Souto, C. 2018 "An overview of the dynamic calibration of piezoelectric pressure transducers" *J. Phys. Conf. Ser.* 975 012002
- Thomas, S.A., Hawkins, M.C., Matthes, M.K., Gray III, G.T. and Hixson, R.S. 2018 "Dynamic strength properties and alpha-phase shock Hugoniot of iron and steel" *J. Appl. Phys.* 123 175902
- Tracy, S.J., Turneaure, S.J. and Duffy, T.S. 2018 "In situ X-ray diffraction of shock-compressed fused silica" *Phys. Rev. Letts* 120 135702
- Tsuji, K., ed., 2018 "The Micro-World Observed by Ultra High-Speed Cameras" (Berlin, Springer)
- Turley, W.D., Fensin, S.J., Hixson, R.S., Jones, D.R., La Lone, B.M., Stevens, G.D., Thomas, S.A. and Veaser, L.R. 2018 "Spall response of single-crystal copper" *J. Appl. Phys.* 123 055102
- Turneaure, S.J., Renganathan, P., Winey, J.M. and Gupta, Y.M. 2018 "Twinning and dislocation evolution during shock compression and release of single crystals: Real-time X-ray diffraction" *Phys. Rev. Letts* 120 265503

- Tuttle, L., Schmitt, R., Kittell, D. and Harstad, E. 2018 "Evaluation of XHVRB for capturing shock desensitization" AIP Conf. Proc. 1979 100044
- Tyupanova, O., Nadezhin, S., Duday, P. and Ivanovsky, A. 2018 "Numerical analysis of damage kinetics in aluminium under axisymmetric loading" EPJ Web Conferences 183 01066
- Ullas, A.V., Sharma, P.K., Chandel, P., Sharma, P., Kumar, D. and Roy, P.K. 2018 "Epoxy-glass microballoon syntactic foams for blast mitigating applications" Defence Sci. J. 68 210-217
- Ushnurtsev, A.E., Shilkin, N.S., Utkin, A.V. and Mintsev, V.B. 2018 "Exploding wires initiation of nitromethane sensitized by diethylenetriamine" J. Phys. Conf. Ser. 946 012060
- Utkin, A.V. and Mochalova, V.M. 2018 "Shock wave and detonation properties of pressed hydrazine nitrate" Propell. Explos. Pyrotech. 43 552-558
- Utkin, A.V. and Mochalova, V.M. 2018 "Non-classical detonation regimes of liquid high explosives" J. Phys. Conf. Ser. 946 012056
- Utkin, P.S. and Fortova, S.V. 2018 "Mathematical modeling of impact of two metal plates using two-fluid approach" J. Phys. Conf. Ser. 946 012047
- Valisetty, R., Rajendran, A., Dongare, A. and Namburu, R. 2018 "An atomistic study of the effect of microstructure on the HEL evolution in a nanocrystalline aluminum" AIP Conf. Proc. 1979 060010
- Valisetty, R., Rajendran, A., Agarwal, G., Dongare, A., Ianni, J. and Namburu, R. 2018 "High performance computing simulations of shock front evolution for a study of the shock precursor decay in a submicron thick nanocrystalline aluminum" Model. Simul. Mater. Sci. Engng 26 055008
- Vandersall, K.S., DeHaven, M.R., Strickland, S.L., Tarver, C.M., Springer, H.K. and Cowan, M.R. 2018 "Shock initiation experiments with ignition and growth modeling on the HMX-based explosive LX-14" AIP Conf. Proc. 1979 100045
- Velikovich, A.L. and Giuliani, J.L. 2018 "Solution of the Noh problem with an arbitrary equation of state" Phys. Rev. E 98 013105
- Verma, H.K., Singh, P.K., Bharadwaj, A. and Sharma, V. 2018 "Impact of blasting on surrounding rock mass properties", in "FragBlast 12: Proc. 12th Int. Symp. on Rock Fragmentation by Blasting", ed. H. Schunnesson and D. Johansson, pp. 189-201, (Luleå, Sweden, Luleå University of Technology)
- Veysset, D., Gutiérrez-Hernández, U., Dresselhaus-Cooper, L., De Colle, F., Kooi, S., Nelson, K.A., Quinto-Su, P.A. and Pezeril, T. 2018 "Single-bubble and multibubble cavitation in water triggered by laser-driven focusing shock waves" Phys. Rev. E 97 053112

- Veysset, D., Kooi, S.E., Haferssas, R., Hassani-Gangaraj, M., Islam, M., Maznev, A.A., Chemukha, Y., Zhao, X., Nakagawa, K., Martynowych, D., Zhang, X., Lomonosov, A.M., Schuh, C.A., Radovitzky, R., Pezeril, T. and Nelson, K.A. 2018 "Glass fracture by focusing of laser-generated nanosecond surface acoustic waves" *Scripta mater.* 158 42-45
- Viswanath, D.S., Ghoah, T.K. and Boddu, V.M. 2018 "Emerging Energetic Materials: Synthesis, Physicochemical, and Detonation Properties" (Berlin, Springer)
- Volkov, I., Igumnov, L., Litvinchuk, S. and Vorobtsov, I. 2018 "Modeling dynamic deformation and failure of thin-walled structures under explosive loading" *EPJ Web Conferences* 183 03016
- Voorhees, T.J., Kennedy, G.B., Fredenburg, D.A. and Thadhani, N.N. 2018 "Characterization of the dynamic densification behavior of cerium dioxide powders as a function of green density" *AIP Conf. Proc.* 1979 110018
- Walley, S.M. 2018 "The beginnings of the use of iron and steel in heavy armour", in "Metallurgical Design and Industry", ed. B. Kaufman and C.L. Briant, pp. 71-153, (New York, Springer)
- Wang, Y.-G., Liu, F.-S., Liu, Q.-J. and Wang, W.-P. 2018 "Electrical resistivity of fluid methane multiply shock compressed to 147 GPa" *High Press. Res.* 38 1-11
- Wang, W., Fu, Q., Zhu, M., Wang, Y., Sun, X. and Yang, S. 2018 "Numerical study of the influence of backplane material on the flyer velocity driven by an electric explosion using a new two-stage dynamic model" *AIP Conf. Proc.* 1979 150039
- Wang, G.L., Zhang, Z.H., Guo, S., Cheng, C., Jia, Y.S., Sun, Q.Z., Zou, W.K., Zhang, Z.W., Zhang, S.L., Ji, C., Feng, S.P. and Wang, M. 2018 "Recent advance in isentropic compression experiments on primary test stand facility" *AIP Conf. Proc.* 1979 160030
- Wang, Y.G., Liu, F.S. and Liu, Q.J. 2018 "Resistivity behavior of hydrogen and liquid silane at high shock compression" *Physica A* 541 89-94
- Wang, X., Xia, W., Wu, X. and Huang, C. 2018 "Scaling law in laser-induced shock effects of NiTi shape memory alloy" *Metals* 8 doi: 10.3390/met8030174
- Wang, P., Zhang, J., Huang, H., Zheng, Z. and Yu, J. 2018 "Shock wave speed and stress-strain relation of aluminium honeycombs under dynamic compression" *EPJ Web Conferences* 183 01047
- Wang, G., Luo, B., Zhang, X., Cai, J., Chong, T., Zhao, J., Chen, X., Tan, F., Sun, C., Liu, C. and Wu, G. 2018 "Characterizations of dynamic material properties on compact pulsed power generator CQ-4" *EPJ Web Conferences* 183 02057
- Wang, L., Liu, A., Dai, H., Xu, F. and Min, X. 2018 "Shock-induced martensite phase transformation and its effects of metastable near  $\beta$  Ti-5553 titanium alloy" *EPJ Web Conferences* 183 03029
- Wang, Z., Guo, X., Zhao, D. and Zhang, Q. 2018 "Shock-induced phase transition of iron studied with phase field method" *Int. J. Multiphysics* 12 131-146



- Wang, X.J., Wu, Y.Q., Huang, F.L. and Zhang, L.S. 2018 "Dynamic anisotropic response of -HMX and -RDX single crystals using plate impact experiments at approximate to 1GPa" *Propell. Explos. Pyrotech.* 43 759-770
- Wang, J.X., Yin, Y. and Luo, C.W. 2018 "Johnson-Holmquist-II(JH-2) constitutive model for rock materials: Parameter determination and application in tunnel smooth blasting" *Applied Sciences* 8 doi: 10.3390/app8091675
- Wang, Y.J., Leshner, C.M., Lightfoot, P.C., Pattison, E.F. and Golightly, J.P. 2018 "Shock metamorphic features in mafic and ultramafic inclusions in the Sudbury Igneous Complex: Implications for their origin and impact excavation" *Geology* 46 443-446
- Weck, P.F., Cochrane, K.R., Root, S., Lane, J.M.D., Shulenburger, L., Carpenter, J.H., Sjoström, T. and Mattsson, T.R. 2018 "Shock compression of strongly correlated oxides: A liquid-regime equation of state for cerium(IV) oxide" *Phys. Rev. B* 97 125106
- Weckert, S.A. and Resnyansky, A.D. 2018 "Use of SHPB tests for incorporating a compaction constitutive equation within a two-phase model" *AIP Conf. Proc.* 1979 110019
- Wedberg, R. 2018 "Using underwater explosion and cylinder expansion tests to calibrate afterburn models for aluminized explosives" *AIP Conf. Proc.* 1979 150040
- Wen, P., Demaske, B., Spearot, D.E. and Phillpot, S.R. 2018 "Shock compression of  $\text{Cu}_x\text{Zr}_{100-x}$  metallic glasses from molecular dynamics simulations" *J. Mater. Sci.* 53 5719-5732
- White, L.F., Darling, J.R., Moser, D.E., Cayron, C., Barker, I., Dunlop, J. and Tait, K.T. 2018 "Baddeleyite as a widespread and sensitive indicator of meteorite bombardment in planetary crusts" *Geology* 46 719-722
- Whiteman, G., Higgins, D.L., Pang, B., Millett, J.C.F., Chiu, Y.-L. and Jones, I.P. 2018 "Variations in hardness with position In one-dimensionally recovered shock-loaded metals" *EPJ Web Conferences* 183 02013
- Whitworth, N. and Lambourn, B. 2018 "A single-phase analytic equation of state for solid polyurea and polyurea aerogels" *AIP Conf. Proc.* 1979 030007
- Wilde, Z., Gibson, J., Nakamoto, T., Smith, D., Tasker, D. and Trujillo, C. 2018 "Probing detonator performance through radio wave emissions" *AIP Conf. Proc.* 1979 160031
- Williams, R.J.R. 2018 "Ejecta sources and scalings" *AIP Conf. Proc.* 1979 080015
- Williams, C.L., Ligda, J., Farbaniec, L. and Krywopusk, N. 2018 "On the microstructural aspects of shock-induced failure in magnesium alloys", in "Dynamic Behavior of Materials", ed. J. Kimberley, L.E. Lamberson and S. Mates, pp. 115-121, (New York, Springer)

- Williams, J., Howard, W.S. and Hawkins, S. 2018 "An analysis of shock conditions arising from an oblique impact between two solids" *Int. J. Impact Engng* 116 1-21
- Wiscons, R.K., Bellas, M.K., Bennion, J.C. and Matzger, A.J. 2018 "Detonation performance of ten forms of 5,5'-dinitro-2H,2H'-3,3'-bi-1,2,4-triazole (DNBT)" *Cryst. Growth Design* 18 7701-7707
- Wood, M.A., Kittell, D.E., Yarrington, C.D. and Thompson, A.P. 2018 "Multiscale modeling of shock wave localization in porous energetic material" *Phys. Rev. B* 97 014109
- Wood, D.C., Appleby-Thomas, G.J., Hameed, A., Barnes, N.R., Hughes, A. and Hazell, P.J. 2018 "The variance on the shock response of a carbon fibre composite due to the orientation of the weave" *J. Mater. Sci.* 53 11415-11425
- Wu, B., Wu, F.-C., Zhu, Y.-B., Wang, P., He, A.-M. and Wu, H.-A. 2018 "Molecular dynamics simulations of ejecta production from sinusoidal tin surfaces under supported and unsupported shocks" *AIP Advances* 8 045002
- Wu, J., Wu, H., Tan, H.W.A. and Chew, S.H. 2018 "Multi-Layer Pavement System under Blast Load" (New York, Springer)
- Wu, J., Wu, H., Tan, H.W.A. and Chew, S.H. 2018 "Development of new multi-layer pavement system subjected to blast load: Full scale field blast trial", in "Multi-Layer Pavement System under Blast Load", pp. 53-91, (New York, Springer)
- Wu, J., Wu, H., Tan, H.W.A. and Chew, S.H. 2018 "Numerical modeling of pavement slab subjected to blast loading", in "Multi-Layer Pavement System under Blast Load", pp. 109-205, (New York, Springer)
- Wu, J., Wu, H., Tan, H.W.A. and Chew, S.H. 2018 "Conclusions and recommendations", in "Multi-Layer Pavement System under Blast Load", pp. 207-213, (New York, Springer)
- Xi, F., Jin, K., Geng, H., Li, Y., Tan, Y., Li, J., Zhang, Y., Zhang, L., Cai, L. and Sun, Y. 2018 "Accurate Hugoniot and sound velocities of bismuth under shock compression in the 38-100 GPa range" *AIP Advances* 8 015023
- Xiang, G. and Wang, B. 2018 "Numerical investigation on the interaction of planar shock wave with an initial ellipsoidal bubble in liquid medium" *AIP Advances* 8 075128
- Xie, M.-X., Shang, X.-T., Zhang, L.-J., Bai, Q.-L. and Xu, T.-T. 2018 "Interface characteristic of explosive-welded and hot-rolled TA1/X65 bimetallic plate" *Metals* 8 doi: 10.3390/met8030159
- Xie, W.B., Zhang, W., Guo, L.C., Gao, Y.B., Li, D.C. and Jiang, X.W. 2018 "The shock and spallation behavior of a carbon fiber reinforced polymer composite" *Composites B* 153 176-183

- Xu, Y. 2018 "Effect of boron coated with ammonium perchlorate on the underwater explosion performance of RDX-based explosive", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 352-356, (Pardubice, Czech Republic, University of Pardubice)
- Xu, Z., Liu, Y. and Huang, F. 2018 "Experimental study on counterintuitive behavior of thin aluminium plates under free airblast loading" EPJ Web Conferences 183 02059
- Xue, Q., Jiang, S., Wang, Z., Wang, F., Zhao, X. and Ding, Y. 2018 "Laser pulse shape design for laser-indirect-driven quasi-isentropic compression experiments" AIP Advances 8 025202
- Xue, S.J., Liu, H.J., Zhou, L.X., Yang, W.D., Hu, H.B. and Yan, Y. 2018 "Experimental research on rotating detonation with liquid hypergolic propellants" Chinese J. Aeronautics 31 2199-2205
- Yakushev, V.V., Ananov, S.Y., Utkin, A.V., Zhukov, A.N. and Dolgoborodov, A.Y. 2018 "Shock compressibility of mixtures of micro- and nano-sized nickel and aluminum powders" Combust. Explos. Shock Waves 54 552-557
- Yang, S.Y. and Bao, J.W. 2018 "Microstructure and properties of 5083 Al/1060 Al/AZ31 composite plate fabricated by explosive welding" J. Mater. Engng Perform. 27 1177-1184
- Yang, X., Zeng, X.G., Pu, C.J., Chen, W.J., Chen, H.Y. and Wang, F. 2018 "Molecular dynamics modeling of the Hugoniot states of aluminum" AIP Advances 8 105212
- Yao, Z., Wang, Z., Wang, C. and Lv, J. 2018 "A fast estimation of shock wave pressure based on trend identification" Meas. Sci. Technol. 29 045001
- Yao, Y., Chai, H.W., Li, C., Bie, B.X., Xiao, X.H., Huang, J.Y., Qi, M.L. and Luo, S.N. 2018 "Deformation and damage of sintered low-porosity aluminum under planar impact: Microstructures and mechanisms" J. Mater. Sci. 53 4582-4597
- Yarrington, C.D., Tappan, A.S., Specht, P.E. and Knepper, R. 2018 "Quasi-isentropic compression of vapor-deposited hexanitroazobenzene (HNAB): Experiments and analysis" AIP Conf. Proc. 1979 150042
- Yarrington, C.D., Wixom, R.R. and Damm, D.L. 2018 "Shock interactions with heterogeneous energetic materials" J. Appl. Phys. 123 105901
- Yoo, S. and Stewart, D.S. 2018 "DSD-informed calibration of constitutive models for hydrodynamic simulation of explosives" AIP Conf. Proc. 1979 100047
- Yorke, C.E., Howard, A.D., Burnett, S.C., Honnell, K.G., Ramsey, S.D. and Singleton Jr., R.L. 2018 "Extension of the planar Noh problem to aluminum, iron, copper, and tungsten" AIP Conf. Proc. 1979 140006
- Yu, Y., Li, C., Ma, H.H., Qi, M.L. and Luo, S.N. 2018 "Deformation and spallation of explosive welded steels under gas gun shock loading" Chinese Phys. Letts 35 018101

- Zaghloul, M.R. 2018 "Critical parameters, thermodynamic functions, and shock Hugoniot of aluminum fluid at high energy density" *High Energy Density Phys.* 26 8-15
- Zakuskin, A.S., Popov, A.M., Zorov, N.B. and Labutin, T.A. 2018 "Confinement of laser plasma by shock waves for increasing signal intensity in spectrochemical determination of trace elements in ores" *Tech. Phys. Letts* 44 73-76
- Zaretsky, E.B. and Kanel, G.I. 2018 "Abnormal temperature effects on the dynamic yield stress of alpha-brass" *J. Appl. Phys.* 124 045902
- Zaretsky, E.B. 2018 "Comment on 'The  $\alpha$ - $\gamma$ - $\epsilon$  triple point and phase boundaries of iron under shock compression'" *J. Appl. Phys.* 123 126101
- Zhan, D., Li, Z., Yang, J., Zhu, Y. and Yang, J. 2018 "A contraction channel design for planar shock wave enhancement" *Rev. Sci. Instrum.* 89 056104
- Zhang, X., Wang, K., Zhu, W., Chen, J., Cai, M., Xiao, S., Deng, H. and Hu, W. 2018 "Effect of grain boundaries on shock-induced phase transformation in iron bicrystals" *J. Appl. Phys.* 123 045105
- Zhang, Z., Nian, Q., Dumanidis, C.C. and Liao, Y. 2018 "First-principles modeling of laser-matter interaction and plasma dynamics in nanosecond pulsed laser shock processing" *J. Appl. Phys.* 123 054901
- Zhang, T.T., Wang, W.X., Zhou, J., Cao, X.Q., Yan, Z.F., Wei, Y. and Zhang, W. 2018 "Investigation of interface bonding mechanism of an explosively welded tri-metal titanium/aluminum/magnesium plate by nanoindentation" *JOM* 70 504-509
- Zhang, X., Luo, B., Wu, G., Wang, G., Tan, F., Tan, F., Zhao, J. and Sun, C. 2018 "Yield behavior of polystyrene at strain rate  $10^6$  s<sup>-1</sup> under quasi-isentropic compression" *Mech. Mater.* 124 1-6
- Zhang, F., Liu, Y., He, H. and Feng, N. 2018 "Electrical response of KNN lead-free ferroelectric ceramics under shock compression" *AIP Conf. Proc.* 1979 060012
- Zhang, N.B., Cai, Y., Yao, X.H., Zhou, X.M., Li, Y.Y., Song, C.J., Qin, X.Y. and Luo, S.N. 2018 "Spin transition of ferroperricase under shock compression" *AIP Advances* 8 075028
- Zhang, X., Wang, G., Luo, B., Tan, F., Bland, S.N., Zhao, J., Sun, C. and Liu, C. 2018 "Refractive index and polarizability of polystyrene under shock compression" *J. Mater. Sci.* 53 12628-12640
- Zhang, T.T., Wang, W.X., Zhang, W., Wei, Y., Cao, X.Q., Yan, Z.F. and Zhou, J. 2018 "Microstructure evolution and mechanical properties of an AA6061/AZ31B alloy plate fabricated by explosive welding" *J. Alloys Compounds* 735 1759-1768
- Zhang, Y., Xue, C., Ding, N., Liu, H.F., Song, H.F., Zhang, Z.H., Wang, G.L., Sun, S.K., Ning, C., Dai, Z.H. and Shi, X.J. 2018 "One-dimensional magneto-hydrodynamic simulation of the magnetic drive isentropic compression experiments on primary test stand (in Chinese)" *Acta Phys. Sinica* 67 030702

- Zhang, J.Z., Vogel, S., Brown, D., Clausen, B. and Hackenberg, R. 2018 "Equation of state, phase stability, and phase transformations of uranium-6 wt. % niobium under high pressure and temperature" *J. Appl. Phys.* 123 175103
- Zhang, S., Militzer, B., Gregor, M.C., Caspersen, K., Yang, L.H., Gaffney, J., Ogitsu, T., Swift, D., Lazicki, A., Erskine, D., London, R.A., Celliers, P.M., Nilsen, J., Sterne, P.A. and Whitley, H.D. 2018 "Theoretical and experimental investigation of the equation of state of boron plasmas" *Phys. Rev. E* 98 023205
- Zhang, T., Zhao, J.B., Gao, Z.P., Wu, X., He, H.L. and Gu, Y. 2018 "Shock initiation of the TATB-based explosive JBO-9021 measured with a photon Doppler velocimeter" *Propell. Explos. Pyrotech.* 43 1227-1235
- Zhang, K., Tang, W.H. and Fu, K.K. 2018 "Modeling of dynamic behavior of carbon fiber-reinforced polymer (CFRP) composite under X-ray radiation" *Materials* 11 doi: 10.3390/ma11010143
- Zhang, Q.M., Gong, L.F., Ma, Y.F., Long, R.R. and Gong, Z.Z. 2018 "The electromagnetic properties of plasma produced by hypervelocity impact" *Phys. Plasmas* 25 022906
- Zhang, Y.J., Sekine, T., Lin, J.F., He, H.L., Liu, F.S., Zhang, M.J., Sato, T., Zhu, W.J. and Yu, Y. 2018 "Shock compression and melting of an Fe-Ni-Si alloy: Implications for the temperature profile of the Earth's core and the heat flux across the core-mantle boundary" *J. Geophys. Res.: Solid Earth* 123 1314-1327
- Zhang, X.Q., Chen, X.R., Kaliampurthi, S., Selvaraj, G., Ji, G.F. and Wei, D.Q. 2018 "Initial decomposition of the co-crystal of CL-20/TNT: Sensitivity decrease under shock loading" *J. Phys. Chem. C* 122 24270-24278
- Zhao, X. 2018 "Experimental studies on vertical detonation characteristic of strip-shaped transfer charge", in "Proc. 21st Seminar of the New Trends in Research of Energetic Materials", ed. J. Pachmán and J. Selesovsky, pp. 382-390, (Pardubice, Czech Republic, University of Pardubice)
- Zhao, S., Kad, B., Hahn, E., Chen, L., Opachi, Y., More, K., Remington, B., Wehrenberg, C., LaSalvia, J., Yang, W., Quan, H. and Meyers, M. 2018 "Shock-induced amorphization in covalently-bonded solids" *EPJ Web Conferences* 183 03027
- Zhou, X., Miao, Y.-R., Banlusan, K., Shaw, W.L., Strachan, A.H., Suslick, K.S. and Dlott, D.D. 2018 "Shock wave dissipation by metal organic framework" *AIP Conf. Proc.* 1979 150043
- Zhou, N., Wang, J.X., Tang, S.Z., Tao, Q.C. and Wang, M.X. 2018 "Study on the failure and energy absorption mechanism of multilayer explosively-welded plates impacted by spherical fragments" *Mech. Compos. Mater.* 53 809-820
- Zhou, Y., Ji, C., Long, Y., Yu, Y., Li, Y. and Wang, T. 2018 "Experimental studies on the deformation and damage of steel cylindrical shells subjected to double-explosion loadings" *Thin-Walled Structures* 127 469-482

- Zhu, P., Chen, K., Xu, C., Zhao, S.F., Shen, R.Q. and Ye, Y.H. 2018 "Development of a monolithic micro chip exploding foil initiator based on low temperature co-fired ceramic" *Sensors Actuators A* 276 278-283
- Zhukov, A.N., Yakushev, V.A., Ananov, S.Y., Dobrygin, V.V. and Dolgoborodov, A.Y. 2018 "Investigation of nickel aluminide formed due to shock loading of aluminum–nickel mixtures in flat recovery ampoules" *Combust. Explos. Shock Waves* 54 64-71
- Zubareva, A.N., Utkin, A.V. and Lavrov, V.V. 2018 "Shock wave properties of inert and chemically active porous media" *Combust. Explos. Shock Waves* 54 541-551
- Zubelewicz, A. 2018 "Metal behavior in the extreme of dynamics" *Scientific Reports* 8  
doi: 10.1038/s41598-018-23566-1