

- 1 J.R. James, J.E. Nicholls, B.C. Cavenett, J.J. Davies and D.J. Dunstan, 1975, *Donor- acceptor nature of the blue self-activated emission in ZnS crystals*, Solid State Communications **17**, 969-972.
- 2 J.R. James, B.C. Cavenett, J.E. Nicholls, J.J. Davies and D.J. Dunstan, 1976, *Donor- acceptor nature of the blue self-activated and the copper green emissions in ZnS crystals*, Journal of Luminescence **12/13**, 447-452.
- 3 D.J. Dunstan, B.C. Cavenett, R.F. Brunwin and J.E. Nicholls, 1977, *Optical detection of the donor resonance in ZnSe*, Journal of Physics **C10**, L361-364.
- 4 D.J. Dunstan, J.E. Nicholls, B.C. Cavenett, J.J. Davies and K.V. Reddy, 1977, *Optically detected magnetic resonance of the V centre in ZnSe*, Solid State Communications **24**, 677-680.
- 5 P. Dawson, D.J. Dunstan and B.C. Cavenett, 1978, *Bound excitons in CdS*, Semiconductors and Insulators **4**, 91-99.
- 6 J.E. Nicholls, D.J. Dunstan and J.J. Davies, 1978, *The origin of some emission bands in ZnSe using optically detected magnetic resonance*, Semiconductors and Insulators **4**, 119-130.
- 7 K. Morigaki, D.J. Dunstan, B.C. Cavenett, P. Dawson, J.E. Nicholls, S. Nitta and K. Shimakawa, 1978, *Optically detected electron spin resonance in amorphous silicon*, Solid State Communications **26**, 981-985.
- 8 J.E. Nicholls, J.J. Davies, B.C. Cavenett, J.R. James and D.J. Dunstan, 1979, *Spin-dependent donor-acceptor pair recombination in ZnS crystals showing the self-activated emission*, Journal of Physics **C12**, 361-379.
- 9 D.J. Dunstan and J.J. Davies, 1979, *The behaviour of donor-acceptor recombination emission in II-VI crystals subjected to magnetic resonance*, Journal of Physics **C12**, 2927- 2944.
- 10 K. Morigaki, P. Dawson, B.C. Cavenett, D.J. Dunstan, S. Nitta and K. Shimakawa, 1979, *Time-resolved optically detected magnetic resonance in amorphous silicon*, Institute of Physics Conference Series **43**, 1163-1166.
- 11 D.J. Dunstan, J.E. Nicholls, B.C. Cavenett and J.J. Davies, 1980, *Zinc vacancy-associated defects and donor-acceptor recombination in ZnSe*, Journal of Physics **C13**, 6409-6419.
- 12 D.J. Dunstan, 1981, *Photoluminescence studies of band-bending in hydrogenated amorphous silicon thin films*, Journal of Physics **C14**, 1363-1371.
- 13 M.O. Henry, E.C. Lightowers, N. Killoran, D.J. Dunstan and B.C. Cavenett, 1981, *Bound exciton recombination in beryllium-doped silicon*, Journal of Physics **C14**, L255-261.
- 14 D.J. Dunstan and F. Boulitrop, 1981, *A re-interpretation of the absorption and excitation spectra of a-Si:H*, Solid State Communications **39**, 1005-1007.
- 15 D.J. Dunstan and F. Boulitrop, 1981, *A no-Stokes shift model for the photoluminescence of a-Si:H*, Journal de Physique **42**, Colloque C4, 331-334.
- 16 D.J. Dunstan, 1982, *Evidence for a common origin of the Urbach tails in amorphous and crystalline semiconductors*, Journal of Physics **C15**, L419-424.
- 17 D.J. Dunstan, S.P. Depinna and B.C. Cavenett, 1982, *A direct determination of the lifetime distribution of the 1.4eV luminescence of a-Si:H*, Journal of Physics **C15**, L425-429.
- 18 F. Boulitrop, D.J. Dunstan and A. Chenevas-Paule, 1982, *New model of the temperature dependence of the 1.4eV emission band of amorphous silicon*, Physical Review B (Rapid Communications) **25**, 7860-7862.
- 19 D.J. Dunstan, 1982, *Band-gap fluctuations in amorphous semiconductors*, Solid State Communications **43**, 341-344.
- 20 N. Killoran, D.J. Dunstan, M.O. Henry, E.C. Lightowers and B.C. Cavenett, 1982, *The isoelectronic centre in beryllium-doped silicon: I. Zeeman study*, Journal of Physics **C15**, 6067-6085.
- 21 F. Boulitrop and D.J. Dunstan, 1982, *Non-geminate recombination in amorphous silicon*, Solid State Communications **44**, 841-844.
- 22 D.J. Dunstan, 1982, *Kinetics of distant-pair recombination: I. Amorphous silicon luminescence at low temperature*, Philosophical Magazine **B46**, 579-594.
- 23 D.J. Dunstan, 1983, *Kinetics of distant-pair recombination: application to amorphous silicon*, Physica B+C **117/118**, 902-904.
- 24 D.J. Dunstan, 1983, *New evidence for a fluctuating band-gap in amorphous semiconductors*, Journal of Physics **C16**, L567-571.
- 25 D.J. Dunstan, 1983, *Comment on nonradiative-recombination kinetics in a-Si:H*, Physical Review **B28**, 2252-2253.
- 26 F. Boulitrop, A. Chenevas-Paule and D.J. Dunstan, 1983, *Luminescence and magnetic resonance in post-hydrogenated microcrystalline silicon*, Solid State Communications **48**, 181-184.
- 27 P. Irsigler, D. Wagner and D.J. Dunstan, 1983, *On the application of the Meyer-Neldel rule to a-Si:H*, Journal of Physics **C16**, 6605-6613.
- 28 P.K. Bhat, D.J. Dunstan, I.G. Austin and T.M. Searle, 1983, *Two beam photoluminescence in a-Si:H*, Journal of Non-Crystalline Solids **59/60**, 349-352.
- 29 D. Wagner, P. Irsigler and D.J. Dunstan, 1983, *The Staebler-Wronski effect and the Meyer-Neldel rule in*

- amorphous silicon, *Journal of Non-Crystalline Solids* **59/60**, 413-416.
- 30 F. Boulitrop and D.J. Dunstan, 1983, *Phonon interactions in the tail states of a-Si:H*, *Physical Review* **B28**, 5923-5929.
- 31 D.J. Dunstan, 1984, *Geminate and distant-pair recombination in amorphous silicon: The metastable excited carrier population*, *Solid State Communications* **49**, 395-398.
- 32 D.J. Dunstan, 1984, *Kinetics of distant-pair recombination II: Tunnelling non-radiative recombination*, *Philosophical Magazine* **B49**, 191-213.
- 33 S.P. Depinna and D.J. Dunstan, 1984, *Frequency-resolved spectroscopy and its application to the analysis of recombination in semiconductors*, *Philosophical Magazine* **B50**, 579-597.
- 34 D.J. Dunstan and F. Boulitrop, 1984, *Photoluminescence in hydrogenated amorphous silicon*, *Physical Review* **B30**, 5945-5957.
- 35 D. Wagner, P. Irsigler and D.J. Dunstan, 1984, *Photoconductivity measurements in a-Si:H by frequency-resolved spectroscopy*, *Journal of Physics* **C17**, 6793-6799.
- 36 E. Merk, D.J. Dunstan and W. Czaja, 1985, *Comment on "Optical Bias Control of Dispersive Relaxations in a-Si:H"*, *Physical Review Letters* **54**, 250.
- 37 P. Irsigler, D. Wagner and D.J. Dunstan, 1985, *On the preparation dependence of the Staebler-Wronski effect in a-Si:H*, *Journal of Non-Crystalline Solids* **69**, 207-211.
- 38 F. Boulitrop, J. Dijon, D.J. Dunstan and A. Herve, 1985, *ESR study of metastable carriers in hydrogenated amorphous silicon*, *Proceedings of the 17th International Conference on the Physics of Semiconductors*, edited by J.D. Chadi and W.A. Harrison (Springer-Verlag, New York), 873-876.
- 39 D.J. Dunstan, 1985, *Kinetics of distant-pair recombination III. Bias illumination and frequency-resolved spectroscopy*, *Philosophical Magazine* **B52**, 111-119.
- 40 M. Roberts and D.J. Dunstan, 1985, *A theory of band-gap fluctuations in amorphous semiconductors*, *Journal of Physics* **C18**, 5429-5433.
- 41 D.J. Dunstan, 1985, *Comparison of analytic and Monte Carlo results in distant-pair recombination*, *Physical Review* **B32**, 6910-6912.
- 42 F. Boulitrop and D.J. Dunstan, 1985, *Temperature dependence of carrier lifetimes in a-Si:H*, *Journal of Non-Crystalline Solids* **77 & 78**, 663-666.
- 43 D.J. Dunstan and E. Merk, 1985, *Bias excitation and recombination kinetics in a-Si:H*, *Journal of Non-Crystalline Solids* **77 & 78**, 667-670.
- 44 E. Merk, D.J. Dunstan and W. Czaja, 1986, *Multi-beam time-resolved spectroscopy in a-Si:H*, *Philosophical Magazine* **B53**, 77-86.
- 45 P.D. Greene, A.D. Prins, D.J. Dunstan and A.R. Adams, 1987, *Indium phosphide and quaternary doping superlattices grown by liquid-phase epitaxy*, *Electronics Letters* **23**, 324-325.
- 46 D.J. Dunstan, 1987, *Pulsed noise reduction in infrared luminescence spectroscopy*, *Journal of Physics* **E20**, 577-578.
- 47 J.N. Carter, F. Lai, D.J. Dunstan and D.M. Schleich, 1987, *Infrared laser-induced gas phase decomposition of silane*, *Journal of the Electrochemical Society* **134**, C125.
- 48 K.P. Homewood, P.G. Wade and D.J. Dunstan, 1988, *A simple photoconductive frequency resolved spectrometer for carrier lifetime determination in semiconductors*, *Journal of Physics* **E21**, 84-85.
- 49 R.P. Benyon, K.P. Homewood, D.J. Dunstan, A.K. Saxena, A.R. Adams, B. Cockayne and K. Inabe, 1988, *Temperature and pressure studies of a deep level in InP:V by frequency resolved capacitance spectroscopy*, *Institute of Physics Conference Series* **91**, 129-132.
- 50 D.J. Dunstan and W. Scherrer, 1988, *A miniature cryogenic diamond anvil high pressure cell*, *Review of Scientific Instruments* **59**, 627-630.
- 51 A.D. Prins and D.J. Dunstan, 1988, *Determination of the relative compressibility of GaInAsP and InP*, *Philosophical Magazine Letters*, **58**, 37-44.
- 52 J.D. Lambkin, B.J. Gunney, D. Lancefield, F.G. Bristow and D.J. Dunstan, 1988, *A portable high-pressure system for low temperature optical and transport measurements*, *Journal of Physics* **E21**, 763-766.
- 53 J.D. Lambkin and D.J. Dunstan, 1988, *The hydrostatic pressure dependence of the band-edge photoluminescence of GaInAs*, *Solid State Communications* **67**, 827-830.
- 54 A.D. Prins, J.D. Lambkin, D.J. Dunstan and I.L. Spain, 1988, *The effect of pressure to 4GPa on the photoluminescence spectrum of a multiple quantum well p-i-n diode*, *S.P.I.E. Conference Proceedings* **835**, 95-102 (San Diego 1987).
- 55 J.D. Lambkin, D.J. Dunstan, E.P. O'Reilly and B.R. Butler, 1988, *The pressure dependence of the band offsets in a GaInAs/InP multiple quantum well structure*, *Journal of Crystal Growth* **93**, 323-328.
- 56 D.J. Dunstan, B. Gil and K.P. Homewood, 1988, *Hydrostatic and uniaxial pressure coefficients of CdTe*, *Physical Review B (Rapid Communications)* **38**, 7862-7865.
- 57 V.A. Wilkinson, D.J. Dunstan, P.G. LeComber and R.A.G. Gibson, 1989, *The pressure dependence of the photoluminescence intensity in hydrogenated amorphous silicon*, *Philosophical Magazine Letters* **59**, 37-42.

- 58 A.D. Prins, K.R. Allakhverdiev, S.S. Babaev, S.G. Guseinov, E.I. Mekhtiev, M.M. Shirinov, M.M. Tagyev and D.J. Dunstan, 1989, *Effect of high pressure on the optical transmission spectra of $A^{III}B^{III}C^{VI}_2$ crystals*, *Physica status solidi (b)* **151**, 759-764.
- 59 A.D. Prins, I.L. Spain and D.J. Dunstan, 1989, *Diamond anvil high pressure techniques in semiconductor research*, *Semiconductor Science and Technology* **4**, 237-238.
- 60 A.D. Prins and D.J. Dunstan, 1989, *The bulk moduli of GaInAsP and GaInAs*, *Semiconductor Science and Technology* **4**, 239-240.
- 61 D.J. Dunstan, B. Gil, C. Priester and K.P. Homewood, 1989, *Hydrostatic pressure dependence of CdTe*, *Semiconductor Science and Technology* **4**, 241-242.
- 62 P.J. McDonald, A.J. Horsewill, D.J. Dunstan and N. Hall, 1989, *The pressure dependence of methyl tunnelling in MDBP by field cycling NMR spectroscopy*, *Journal of Physics: Condensed Matter* **1**, 2441-2444.
- 63 J.D. Lambkin, A.R. Adams, D.J. Dunstan, P. Dawson and C.T. Foxon, 1989, *The pressure dependence of the valence band discontinuity in GaAs/AlAs and GaAs/Al_xGa_{1-x}As quantum well structures*, *Physical Review B (Rapid Communications)* **39**, 5546-5549.
- 64 D.J. Dunstan and K.P. Homewood, 1989, *Superstrained superlattices: A processing approach*, *Journal of Applied Physics* **66**, 462-463.
- 65 G.R. Duffill and D.J. Dunstan, 1989, *Furnace control using non-thermal parameters*, *Journal of Physics E22*, 617-618.
- 66 D.J. Dunstan and I.L. Spain, 1989, *The technology of diamond anvil high pressure cells I. Principles, design and construction*, *Journal of Physics E22*, 913-923.
- 67 I.L. Spain and D.J. Dunstan, 1989, *The technology of diamond anvil high pressure cells II. Operation and use*, *Journal of Physics E22*, 923-933.
- 68 D.J. Dunstan, 1989, *Theory of the gasket in diamond anvil high-pressure cells*, *Review of Scientific Instruments* **60**, 3789-3795.
- 69 B. Gil, D.J. Dunstan, J. Calatayud, H. Mathieu and J.P. Faurie, 1989, *Electronic structure of cadmium-telluride - zinc-telluride strained-layer superlattices under pressure*, *Physical Review B40*, 5522-5528.
- 70 V.A. Wilkinson, J.D. Lambkin, A.D. Prins and D.J. Dunstan, 1990, *The pressure dependence of the valence band discontinuity in quantum well structures*, *High Pressure Research* **3**, 57-59.
- 71 A.D. Prins, B. Gil, D.J. Dunstan and J.P. Faurie, 1990, *CdTe/ZnTe strained layer superlattices under high pressure*, *High Pressure Research* **3**, 63-65.
- 72 V.A. Wilkinson, D.E. Ashenford, B. Lunn and D.J. Dunstan, 1990, *Magneto-optical studies of CdTe/CdMnTe semimagnetic semiconductor superlattices under high pressure*, *High Pressure Research* **3**, 72-74.
- 73 D.J. Dunstan and V.A. Wilkinson, 1990, *Miniature cryogenic diamond anvil cell*, *High Pressure Research* **3**, 794-796.
- 74 V.A. Wilkinson, A.D. Prins, J.D. Lambkin, E.P. O'Reilly, D.J. Dunstan, L.K. Howard and M.T. Emeny, 1990, *Hydrostatic pressure coefficients of the photoluminescence of InGaAs/GaAs strained-layer quantum wells*, *Physical Review B42*, 3113-3119.
- 75 J.D. Lambkin, D.J. Dunstan, K.P. Homewood, L.K. Howard and M.T. Emeny, 1990, *Thermal quenching of the photoluminescence of InGaAs/GaAs and InGaAs/AlGaAs strained-layer quantum wells*, *Applied Physics Letters* **57**, 1986-1988.
- 76 A.R. Adams and D.J. Dunstan, 1990, *Analysis and design of low-dimensional structures and devices using strain: I. Hydrostatic pressure effects*, *Semiconductor Science and Technology* **5**, 1194-1201 (Review).
- 77 D.J. Dunstan and A.R. Adams, 1990, *Analysis and design of low-dimensional structures and devices using strain: II. Strained-layer systems*, *Semiconductor Science and Technology* **5**, 1202-1208 (Review).
- 78 D.J. Dunstan, N. Hall, P.J. McDonald and K.A. Walsh, 1990, *NMR field cycling of tunnelling molecular groups at high pressure*, *Bulletin of Magnetic Resonance* **11**, 372.
- 79 R.J. Warburton, R.J. Nicholas, N.J. Mason, P.J. Walker, A.D. Prins and D.J. Dunstan, 1991, *High pressure investigation of GaSb and Ga_{1-x}In_xSb quantum wells*, *Physical Review B43*, 4994-5000.
- 80 D.J. Dunstan and B. Gil, 1991, *II-VI compounds and structures under high pressure*, *Proceedings of the 4th International Conference on High Pressure in Semiconductor Physics*, editors D.S. Kyriakos and O.E. Valassiadis (University of Thessaloniki, 1991) pp. 36-43 (Invited talk).
- 81 J.D. Lambkin, A.D. Prins, E.P. O'Reilly, A.R. Adams, D.J. Dunstan, R. Pritchard, W.S. Truscott and K.E. Singer, 1991, *Band offsets of strained GaAsSb/GaAs quantum wells from high pressure photoluminescence*, *Proceedings of the 4th International Conference on High Pressure in Semiconductor Physics*, editors D.S. Kyriakos and O.E. Valassiadis (University of Thessaloniki, 1991) pp. 80-83.
- 82 V.A. Wilkinson, A.D. Prins, L.K. Howard, D.J. Dunstan and M.T. Emeny, 1991, *The pressure dependence of the photoluminescence of InGaAs/AlGaAs strained-layer quantum wells*, *Proceedings of the 4th International Conference on High Pressure in Semiconductor Physics*, editors D.S. Kyriakos and O.E. Valassiadis (University of Thessaloniki, 1991) pp. 84-87.
- 83 A.D. Prins, B. Gil and D.J. Dunstan, 1991, *II-VI superlattice structures under high pressure*, *Proceedings of the*

- 4th International Conference on High Pressure in Semiconductor Physics, editors D.S. Kyriakos and O.E. Valassiadis (University of Thessaloniki, 1991) pp. 278-281.
- 84 B. Gil and D.J. Dunstan, 1991, *Tellurium-based II-VI compound semiconductors and hetero-structures under strain*, *Semiconductor Science and Technology* **6**, 428-438 (Review).
- 85 D.J. Dunstan, 1991, *Soldering diamonds into the diamond anvil cell*, *Review of Scientific Instruments* **62**, 1660-1661.
- 86 K.P. Homewood and D.J. Dunstan, 1991, *Optical characterisation of thermal mixing in quantum wells and heterostructures using a Green's function model*, *Journal of Applied Physics* **69**, 7581-7584.
- 87 D.J. Dunstan, S. Young and R.H. Dixon, 1991, *Geometrical theory of critical thickness and relaxation in strained-layer growth*, *Journal of Applied Physics* **70**, 3038-3045.
- 88 D.J. Dunstan, 1991, *Relaxed buffer layers*, *Semiconductor Science and Technology* **6**, A76-A79.
- 89 D.J. Dunstan and K.P. Homewood, 1991, *Doping in II-VIs*, *Semiconductor Science and Technology* **6**, A161-A162.
- 90 D.J. Dunstan, A.D. Prins, B. Gil and J.P. Faurie, 1991, *Phase transitions in CdTe/ZnTe strained layer superlattices*, *Physical Review B* **44**, 4017-4020.
- 91 A.R. Adams, D.J. Dunstan and E.P. Reilly, 1991, *Strained layers for optoelectronic devices*, *Physica Scripta* **T39**, 196-203 (Review).
- 92 D.J. Dunstan, P. Kidd, L.K. Howard and R.H. Dixon, 1991, *Plastic relaxation of InGaAs grown on GaAs*, *Applied Physics Letters* **59**, 3390-3392.
- 93 V.A. Wilkinson, A.D. Prins, D.J. Dunstan, L.K. Howard and M.T. Emeny, 1991, *Investigation of the band structure of the strained systems InGaAs/GaAs and InGaAs/AlGaAs by high pressure photoluminescence*, *Journal of Electronic Materials* **20**, 509-516.
- 94 B. Gil, L.K. Howard, D.J. Dunstan, P. Boring and P. Lefèbvre, 1992, *The influence of the spin-orbit split-off valence band in InGaAs/AlGaAs strained-layer quantum wells*, *Physical Review B (Rapid Communications)* **45**, 3906-3909.
- 95 K.R. Poguntke, D.J. Dunstan and A.R. Adams, 1992, *High pressure studies of semiconductor optoelectronic devices and low-dimensional structures*, in *Recent Trends in High Pressure Research: Proceedings of the XIII AIRAPT Conference*, edited by A.K. Singh (Oxford and IBH, New Delhi), pp. 25-30.
- 96 D.J. Dunstan and A.R. Adams, 1992, *Strain in semiconductor structures and devices*, in *Proceedings of the Conference on the Physics and Technology of Semiconductor Devices and Integrated Circuits* (Madras, 1992), ed. B.S.V. Gopalam (Tata McGraw-Hill, New Delhi, 1992) SPIE Publication Vol. 1523, pp. 487-506 (Review).
- 97 Th. Amand, X. Marie, B. Doreys, J. Barrau, M. Brousseau, D.J. Dunstan, J.Y. Emery and L. Goldstein, 1992, *Well-width dependence of the excitonic lifetime in strained III-V quantum wells*, *Journal of Applied Physics* **72**, 2077-2079.
- 98 D. Leong, H. Feyrit, A.D. Prins, V.A. Wilkinson, K.P. Homewood and D.J. Dunstan, 1992, *Laminated gaskets for absorption and electrical measurements in the diamond anvil cell*, *Review of Scientific Instruments* **63**, 5760-5763.
- 99 D.J. Dunstan, 1992, *On the measurement of absolute radiative and non-radiative recombination efficiencies in semiconductor lasers*, *Journal of Physics D: Applied Physics* **25**, 1825-1828.
- 100 G. Arnaud, J. Allègre, P. Lefebvre, H. Mathieu, L.K. Howard and D.J. Dunstan, 1992, *Photoreflectance and piezophotoreflectance studies of strained-layer In_xGa_{1-x}As-GaAs quantum wells*, *Physical Review B* **46**, 15290-15301.
- 101 D.J. Dunstan, R.H. Dixon, P. Kidd, L.K. Howard, V.A. Wilkinson, J.D. Lambkin, M. Halsall, C. Jeynes, D. Lancefield, M.T. Emeny, P.J. Goodhew, K.P. Homewood, B.J. Sealy and A.R. Adams, 1993, *Growth and characterisation of relaxed epilayers of InGaAs on GaAs*, *Journal of Crystal Growth* **126**, 589-600.
- 102 A.D. Prins, J.D. Lambkin, E.P. O'Reilly, A.R. Adams, D.J. Dunstan, R. Pritchard, W.S. Truscott and K.E. Singer, 1993, *Evidence for Type I band offsets in strained GaAsSb/GaAs quantum wells from high pressure photoluminescence*, *Physical Review B* **47**, 2191-2196.
- 103 W.P. Gillin, D.J. Dunstan, K.P. Homewood, L.K. Howard and B.J. Sealy, 1993, *Interdiffusion in InGaAs/GaAs quantum well structures as a function of depth*, *Journal of Applied Physics* **73**, 3782-3786.
- 104 D.J. Dunstan, 1993, *Recent developments in diamond-anvil cells*, in *High Pressure Chemistry, Biochemistry and Material Science* eds. R. Winter and J. Jonas (Kluwer Academic, Dordrecht) pp. 79-99.
- 105 D.J. Dunstan, 1993, *Applications of diamond-anvil cells to materials science*, in *High Pressure Chemistry, Biochemistry and Material Science* eds. R. Winter and J. Jonas (Kluwer Academic, Dordrecht) pp. 101-119.
- 106 D.J. Dunstan and B. Gil, 1993, *Electronic structure of (InGa)As-(GaAl)As strained-layer quantum wells*, *Materials Science and Engineering B* **20**, 58-61.
- 107 M. Vening, D.J. Dunstan and K.P. Homewood, 1993, *Thermal quenching and retrapping effects in the*

- photoluminescence of $In_yGa_{1-y}As/GaAs/Al_xGa_{1-x}As$ multiple-quantum-well structures, *Physical Review B* **48**, 2412-2417.
- 108 F. Hassen, G. Bacquet, N. Lauret, J. Barrau, L.K. Howard and D.J. Dunstan, 1993, *Spin orientation by optical pumping in strained $In_xGa_{1-x}As$ quantum wells*, *Solid State Communications* **87**, 889-892.
- 109 P. Kidd, D.J. Dunstan, R. Grey, J. David, P.F. Fewster, N.L. Andrew, S.I. Molina and C.J. Kiely, 1993, *Relaxed epitaxial layers: the effect of an added interface*, *Institute of Physics Conference Series* **134**, 321-324.
- 110 P. Kidd, P.F. Fewster, N.L. Andrew and D.J. Dunstan, 1993, *Critical thickness phenomena: the distinction between the existence of interfacial dislocations and significant lattice relaxation*, *Institute of Physics Conference Series* **134**, 585-588.
- 111 D. Leong, A.D. Prins, A.T. Meney, D.J. Dunstan and K.P. Homewood, 1993, *Excited-state excitons in strained quantum wells under pressure*, *Journal de Physique IV* **3** C5, 331-334.
- 112 B. Dareys, T. Amand, X. Marie, B. Baylac, J. Barrau, M. Brousseau, I. Razdobreiev and D.J. Dunstan, 1993, *Spin relaxation of excitons in strained $InGaAs/GaAs$ quantum wells*, *Journal de Physique IV* **3** C5, 351-354.
- 113 J.E. Dmochowski, R.A. Stradling, A.D. Prins, D.J. Dunstan, A.R. Adams and H. Kukimoto, 1993, *Evidence of Γ -free or bound - to - deep acceptor character of the $Y-1.2eV$ deep photoluminescence line in n -type Ge -doped $GaAs$ derived from high hydrostatic pressure experiments in diamond anvil cell*, *Acta Physica Polonica* **A84**, 649-652.
- 114 J.R. Downes, D.J. Dunstan and D.A. Faux, 1994, *Numerical calculation of critical thickness in strained layer epitaxy*, *Semiconductor Science and Technology* **9**, 1265-1267.
- 115 D.R. Siddle and D.J. Dunstan, 1994, *Buckling of a continuously supported member under compression*, *Philosophical Magazine* **A70**, 233-246.
- 116 D.J. Dunstan, P. Kidd, P.F. Fewster, N.L. Andrew, R. Grey, J.P.R. David, L. González, Y. González, A. Sacedón and F. González-Sanz, 1994, *Plastic relaxation of metamorphic single layer and multilayer $InGaAs/GaAs$ structures*, *Applied Physics Letters* **65**, 839-841.
- 117 W.P. Gillin, A.C. Kimber, D.J. Dunstan and R.P. Webb, 1994, *Diffusion of ion beam created vacancies and their effect on intermixing: A gambler's ruin approach*, *Journal of Applied Physics* **76**, 3367-3371.
- 118 W.P. Gillin and D.J. Dunstan, 1994, *Strain and interdiffusion in semiconductor heterostructures*, *Physical Review* **B50**, 7495-7498.
- 119 T. Amand, B. Dareys, B. Baylac, X. Marie, J. Barrau, M. Brousseau, D.J. Dunstan and R. Planel, 1994, *Exciton formation and hole-spin relaxation in intrinsic quantum wells*, *Physical Review* **B50**, 11624-11628.
- 120 R. Beanland, D.J. Dunstan and P.J. Goodhew, 1994, *Predicting relaxation in strained epitaxial layers*, *Scanning Microscopy* **8**, 859-868.
- 121 J.E. Dmochowski, R.A. Stradling, D.J. Dunstan, A.D. Prins, A.R. Adams, K.E. Singer, T. Fujisawa and H. Kukimoto, 1994, *Pressure induced Γ -shallow - deep A_1 transition for Group VI: S, Se and Group IV: Ge donors in $GaAs$* , *Materials Science Forum* **1075**, 143-147.
- 122 T. Amand, X. Marie, B. Baylac, B. Dareys, J. Barrau, M. Brousseau, R. Planel and D.J. Dunstan, 1995, *Enhanced exciton blueshift in spin-polarized dense exciton system in quantum-wells*, *Physics Letters* **A193**, 105-110.
- 123 J.E. Dmochowski, R.A. Stradling, J. Sly, D.J. Dunstan, A.D. Prins, A.R. Adams, 1995, *Pressure induced shallow-deep A_1 transition for Sn donor in $GaAs$ observed in diamond anvil cell photoluminescence experiment*, *Acta Physica Polonica* **A87**, 457-460.
- 124 A.D. Prins, J.L. Sly, A.T. Meney, D.J. Dunstan, E.P. O'Reilly, A.R. Adams and A. Valster, 1995, *Direct determination of band offsets in $GaInP/AlGaInP$ heterostructures*, *Proceedings of the 22nd International Conference on the Physics of Semiconductors*, editor D.J. Lockwood (World Scientific, Singapore), pp. 719-722.
- 125 A.D. Prins, J.L. Sly, A.T. Meney, D.J. Dunstan, E.P. O'Reilly, A.R. Adams and A. Valster, 1995, *Band structure measurements of $AlGaInP$* , *Proceedings of the 22nd International Conference on the Physics of Semiconductors*, editor D.J. Lockwood (World Scientific, Singapore), pp. 727-730.
- 126 T. Amand, X. Marie, B. Baylac, B. Dareys, J. Barrau, M. Brousseau, D.J. Dunstan and R. Planel, 1995, *Exciton formation and hole spin relaxation in intrinsic quantum wells*, *Proceedings of the 22nd International Conference on the Physics of Semiconductors*, editor D.J. Lockwood (World Scientific, Singapore), pp. 1139-1142.
- 127 A.D. Prins, J.L. Sly, A.T. Meney, D.J. Dunstan, E.P. O'Reilly, A.R. Adams and A. Valster, 1995, *High pressure determination of $AlGaInP$ band structure*, *Journal of Physics and Chemistry of Solids* **56**, 349-352.
- 128 A.D. Prins, J.L. Sly, A.T. Meney, D.J. Dunstan, E.P. O'Reilly, A.R. Adams and A. Valster, 1995, *Direct measurement of band offsets in $GaInP/AlGaInP$ using high pressure*, *Journal of Physics and Chemistry of Solids* **56**, 423-427.
- 129 A.T. Meney, A.D. Prins, A.F. Philips, J.L. Sly, E.P. O'Reilly, D.J. Dunstan, A.R. Adams and A. Valster, 1995,

- Determination of the band structure of disordered AlGaInP and its influence on visible-laser characteristics*, I.E.E.E. Journal of Selected Topics in Quantum Electronics **1**, 697-706.
- 130 A. Sacedón, F. González-Sanz, E. Calleja, E. Muñoz, S.I. Molina, F.J. Pacheco, D. Araújo, R. Garcia, M. Lourenço, Z. Yang, P. Kidd and D.J. Dunstan, 1995, *Design of InGaAs linear graded buffer structures*, Applied Physics Letters **66**, 3334-3336.
- 131 D.J. Dunstan, *Strain and strain relaxation in semiconductor epitaxy*, 1995, Invited Paper in Semiconductor Heteroepitaxy, ed. B. Gil and R.L. Aulombard (World Scientific, Singapore), pp. 564-571.
- 132 J.R. Downes, D.J. Dunstan and D.A. Faux, 1995, *A modified Matthews theory for critical thickness of strained layers*, Semiconductor Heteroepitaxy, ed. B. Gil and R.L. Aulombard (World Scientific, Singapore), pp. 594-597.
- 133 H.G. Colson, P. Kidd, D.J. Dunstan, S.P. Edirisinghe, A.E. Staton-Bevan, R. Grey, J.P.R. David and G.J. Rees, 1995, *Critical thickness and strain relaxation of (111) InGaAs/GaAs*, Semiconductor Heteroepitaxy, ed. B. Gil and R.L. Aulombard (World Scientific, Singapore), pp. 602-605.
- 134 H. Mohr and D.J. Dunstan, 1995, *Electron-beam generated carrier distributions in semiconductor multilayer structures*, Institute of Physics Conference Series **146**, 697-700.
- 135 D.J. Dunstan, P. Kidd, R. Beanland, A. Sacedón, E. Calleja, L. González, Y. González, and F.J. Pacheco, 1996, *Predictability of plastic relaxation in metamorphic epitaxy*, Materials Science and Technology **12**, 181-186.
- 136 G. Jones and D.J. Dunstan, 1996, *Diamond-anvil uniaxial stress cell*, Review of Scientific Instruments **67**, 489-493.
- 137 M.A. Lourenço and D.J. Dunstan, 1996, *Interpretation of double-crystal X-ray rocking curves in relaxed strained-layer structures*, Journal of Applied Physics **79**, 3011-3015.
- 138 R. Beanland, D.J. Dunstan and P.J. Goodhew, 1996, *Plastic relaxation and relaxed buffer layers for semiconductor epitaxy*, Advances in Physics **45**, 87-146.
- 139 D.J. Dunstan, 1996, *Mathematical model for residual strains in multilayer metamorphic epitaxial structures*, Philosophical Magazine **A73**, 1323-1332.
- 140 J.L. Sly and D.J. Dunstan, 1996, *Pressure dependence of the photoluminescence of strained (001) and (111) $In_xGa_{1-x}As$ quantum wells*, Physical Review **B53**, 10116-10120.
- 141 M.E. Brenchley, D.J. Dunstan, P. Kidd and A. Kelly, 1996, *Coherency strain and high strength at high temperature*, M.R.S. Symposium Proceedings **434** 147-152.
- 142 A.D. Prins, J.L. Sly and D.J. Dunstan, 1996, *Determination of the linear pressure coefficients of semiconductor bandgaps*, physica status solidi (b) **198**, 57-60.
- 143 M.F. Whitaker, D.J. Dunstan, M. Missous and L. González, 1996, *A general approach to measurement of band offsets of near-GaAs alloys*, physica status solidi (b) **198**, 349-353.
- 144 P. Kidd, D.J. Dunstan, H.G. Colson, M.A. Lourenço, A. Sacedón, F. González-Sanz, L. González, Y. González, R. Garcia, D. González, F.J. Pacheco and P.J. Goodhew, 1996, *Comparison of the crystalline quality of step-graded and continuously graded InGaAs buffer layers*, J. Crystal Growth **169**, 649-659.
- 145 L. González, Y. González, G. Aragón, M.J. Castro, M.L. Dotor and D.J. Dunstan, 1996, *Relaxation behaviour of undoped $In_xGa_{1-x}P$ $0.5 < x < 0.7$ grown on GaAs by Atomic Layer Molecular Beam Epitaxy (ALMBE)*, Journal of Applied Physics **80**, 3327-3332.
- 146 H.G. Colson and D.J. Dunstan, 1997, *Equilibrium critical thickness of epitaxial strained layers in the {111} orientations*, Journal of Applied Physics **81**, 2898-2900.
- 147 M.E. Brenchley, M. Hopkinson, A. Kelly, P. Kidd and D.J. Dunstan, 1997, *Coherency strain as an athermal strengthening mechanism*, Physical Review Letters **78**, 3912-3914.
- 148 J.R. Downes, D.J. Dunstan and D.A. Faux, 1997, *Analysis of the shortcomings of the Matthews-Blakeslee theory of critical thickness at higher strains*, Philosophical Magazine Letters **76**, 77-81.
- 149 D.J. Dunstan, 1997, *Strain and strain relaxation in semiconductors*, Invited Review, Journal of Materials Science: Materials in Electronics **8**, 337-375.
- 150 H.G. Colson, P. Kidd and D.J. Dunstan, 1997, *Critical thickness and relaxation of 111 strained epitaxial layers*, Microelectronics Journal **28**, 785-794.
- 151 S.G. Kilminster, A.J. Sutton, D.J. Dunstan and G.P. Mould, 1997, *A new model of thresholds to laser induced pain in volunteers differentiates between onset times of analgesia from effervescent and capsule formulations of the same analgesic combination*, European Journal of Clinical Research **9**, 283-291.
- 152 H. Mohr and D.J. Dunstan, 1997, *Electron-beam generated carrier distributions in semi-conductor multilayer structures*, Journal of Microscopy **187**, 119-124.
- 153 W.P. Gillin and D.J. Dunstan, 1998, *Diffusion in semiconductors*, Computational Materials Science **11**, 96-100.
- 154 D.J. Dunstan, 1998, *The role of experimental error in Arrhenius plots: Self-diffusion in semiconductors*, Solid State Communications **107**, 159-163.
- 155 M.D. Frogley, D.J. Dunstan and W. Palosz, 1998, *Combined Raman and transmission spectroscopy of ZnTe under pressure*, Solid State Communications **107**, 537-541.
- 156 M.F. Whitaker, D.J. Dunstan and M. Hopkinson, 1998, *Band offsets in near-GaAs alloys*, Institute of Physics

- Conference Series* **156**, 279-282.
- 157 M.F. Whitaker, S.J. Webb and D.J. Dunstan, 1998, *Raman and absorption spectroscopy of InP under high pressure*, *Journal of Physics: Condensed Matter* **10**, 8611-8618.
- 158 M.D. Frogley, J.L. Sly and D.J. Dunstan, 1998, *Pressure dependence of the direct band-gap in tetrahedral semiconductors*, *Physical Review B* **58**, 12579-12582.
- 159 M.D. Frogley and D.J. Dunstan, 1998 *Comparability and reliability of high-pressure band-gap data in tetrahedral semiconductors*, *Physica status solidi (b)* **211**, 17-22.
- 160 M.F. Whitaker and D.J. Dunstan, 1999, *Raman spectroscopy of GaAs and InGaAs under pressure*, *Journal of Physics: Condensed Matter* **11**, 2861-2868.
- 161 N.B. Jayaweera, A.J. Bushby, P. Kidd, A. Kelly and D.J. Dunstan, 1999, *Control of plasticity with coherency strain*, *Philosophical Magazine Letters* **79**, 343-349.
- 162 D.J. Dunstan, H.G. Colson and A.C. Kimber, 1999, *Analysis of high-resolution X-ray diffraction in semiconductor strained layers*, *Journal of Applied Physics* **86**, 782-790.
- 163 D.J. Dunstan, 1999, *Experimental techniques in the diamond anvil cell*, in "High Pressure Molecular Science" ed. R. Winter and J. Jonas (Kluwer, Amsterdam) 87-101.
- 164 D.J. Dunstan, 1999, *Investigations of semiconductor band structure using high pressure*, in "High Pressure Molecular Science" ed. R. Winter and J. Jonas (Kluwer, Amsterdam) 109-120.
- 165 D.J. Dunstan, H.G. Colson and N.J. Mason, 1999, *Growth and characterisation of relaxed buffer layers*, in "Lattice Mismatched Thin Films" ed. E.A. Fitzgerald (The Minerals, Metals and Materials Society, Warrendale PA) 139-145.
- 166 J.R. Wood, M.D. Frogley, E.R. Meurs, A.D. Prins, T. Peijs, D.J. Dunstan and H.D. Wagner, 1999, *Mechanical response of carbon nanotubes under molecular and mechanical pressures*, *Journal of Physical Chemistry B* **103**, 10388-10392.
- 167 D.J. Dunstan and A.C. Kimber, 2000, *Response to "Comment on 'Analysis of high-resolution X-ray diffraction in semiconductor strained layers'" [J. Appl. Phys. 86, 782 (1999)]*, *Journal of Applied Physics* **87**, 8215.
- 168 J.R. Wood, M.D. Frogley, A.D. Prins, D.J. Dunstan and H.D. Wagner, 2000, *Identity of molecular and macroscopic pressure on carbon nanotubes*, *High Pressure Research* **18**, 153-157.
- 169 J.R. Wood, Q. Zhao, M.D. Frogley, E.R. Meurs, A.D. Prins, T. Peijs, D.J. Dunstan and H.D. Wagner, 2000, *Carbon nanotubes: From molecular to macroscopic sensors*, *Physical Review B* **62**, 7571-7575.
- 170 N.W.A. van Uden and D.J. Dunstan, 2000, *Zen diamond-anvil low-pressure cell*, *Review of Scientific Instruments* **71**, 4174-4176.
- 171 M.D. Frogley, J.R. Downes and D.J. Dunstan, 2000 *Theory of the anomalously low band-gap pressure coefficients in strained-layer semiconductor alloys*. *Physical Review B* **62**, 13612-13616.
- 172 J.R. Downes, N.W.A. van Uden, S.H.B. Bosher, M.D. Frogley and D.J. Dunstan, 2001, *Theory of the anomalously low band-gap pressure coefficients of semiconductor strained layers*, *physica status solidi (b)* **223**, 205-211.
- 173 M. Kuball, J.M. Hayes, A.D. Prins, N.W.A. van Uden, D.J. Dunstan, Y. Shi and J.H. Edgar, 2001, *Raman scattering studies on single-crystalline bulk AlN under high pressure*, *Applied Physics Letters* **78**, 724-726.
- 174 M. Kuball, J.M. Hayes, Y. Shi, J.H. Edgar, A.D. Prins, N.W.A. van Uden and D.J. Dunstan, 2001, *Raman scattering studies on single-crystalline bulk AlN: temperature and pressure dependence of the AlN phonon modes*, *Journal of Crystal Growth* **231**, 391.
- 175 N.W.A. van Uden, J.R. Downes and D.J. Dunstan, 2001, *Photoluminescence of (111) In_xGa_{1-x}As /GaAs strained-layer quantum wells*, *Physical Review B* **63**, 233304, pp.1-4.
- 176 N.B. Jayaweera, J.R. Downes, A.J. Bushby, P. Kidd, A. Kelly and D.J. Dunstan, 2001, *Coherency Strain and a New Yield Criterion*, *MRS Proceedings* **634**, B4-10.
- 177 A.J. Bushby, J.R. Downes, N.B. Jayaweera, P. Kidd, A. Kelly and D.J. Dunstan, 2001, *Physical origin of a size effect in nano-indentation*, *MRS Proceedings* **649**, Q8-4.
- 178 D.J. Dunstan, 2002, *Measurement and interpretation of strain by high-resolution X-ray diffraction*, *Applied Surface Science* **188**, 69-74.
- 179 D.J. Dunstan, S.H.B. Bosher and J.R. Downes, 2002, *Effective thermodynamic elastic constants under finite deformation*, *Applied Physics Letters* **80**, 2672-2674.
- 180 N.W.A. van Uden, H. Hubel, J.M. Hayes, A.D. Prins, M. Kuball, D.J. Dunstan, J.R. Downes, Y. Shi and J.H. Edgar, 2002, *Determination of the mode Grüneisen parameters of AlN using different fits on experimental high pressure data*, *High Pressure Research* **22**, 37-41.
- 181 J.R. Downes, S.H.B. Bosher and D.J. Dunstan, 2002, *A theory of non-linear elasticity compatible with the Murnaghan equation of state*, *High Pressure Research* **22**, 231-235.
- 182 D.J. Dunstan, N.W.A. van Uden and G.J. Ackland, 2002, *High pressure instrumentation: Low and negative pressures*, *High Pressure Research* **22**, 773-778.
- 183 S.J. Lloyd, K.M.Y. P'ng, A.J. Bushby, D.J. Dunstan, P. Kidd and W.J. Clegg, 2002, *Deformation of In_xGa_{1-x}As*

- superlattices under bending and nanoindentation, *Microscopy and Microanalysis* **8** (Supplement 2), 554-555CD.
- 184 D.J. Dunstan and M.D. Frogley, 2002, *Double subtractive spectrometer as a tunable high-resolution broad-bandpass optical filter*, *Review of Scientific Instruments* **73**, 3742-3746.
- 185 D.J. Dunstan and S.H.B. Bosher, 2003, *Reliable non-linear elastic constants*, *Physica status solidi (b)* **235**, 396-400.
- 186 J. Harada, T. Kobayashi, A.D. Prins and D.J. Dunstan, 2003, *Accurate determination of (AlGa)InP alloy pressure coefficients*, *Physica status solidi (b)* **235**, 505-508.
- 187 N.W.A. van Uden, H. Hubel, D.A. Faux, A.C. Tanczos, B. Howlin and D.J. Dunstan, 2003, *Solvation pressure as real pressure I.; Ethanol and starch under negative pressure*, *Journal of Physics: Condensed Matter* **15**, 1577-1584.
- 188 N.B. Jayaweera, J.R. Downes, M.D. Frogley, M. Hopkinson, A.J. Bushby, P. Kidd, A. Kelly and D.J. Dunstan, 2003, *The onset of plasticity in nanoscale contact loading*, *Proceedings of the Royal Society, London*, **A459**, 2049-2068.
- 189 N.W.A. van Uden, H. Hubel, D.A. Faux, D.J. Dunstan and C. Royer, 2003, *Negative effective pressures in liquid mixtures*, *High Pressure Research* **23**, 205-209.
- 190 S.H.B. Bosher and D.J. Dunstan, 2003, *Practical non-linear elasticity theory for large strains*, *High Pressure Research* **23**, 323-327.
- 191 S.J. Lloyd, K.M.Y. P'ng, A.J. Bushby, D.J. Dunstan and W.J. Clegg, 2003, *Yield of $In_xGa_{1-x}As$ superlattices under bending and nanoindentation*, *Materials Research Society Symposium Proceedings* **778**, U2.3.
- 192 K.M.Y. P'ng, A.J. Bushby and D.J. Dunstan, 2003 *Deformation of small volumes of material studied using strained-layer superlattice structures*, *Materials Research Society Symposium Proceedings* **778**, U6.3.
- 193 D.J. Dunstan and A.J. Bushby, 2003, *Geometrical contribution to yield strength in small volumes*, *Materials Research Society Symposium Proceedings* **778**, U9.10.
- 194 D.J. Dunstan, A.J. Bushby and W.P. Gillin, 2003, *III-V semiconductors solve mechanical riddle*, *III-Vs Review* **16** (9), 39-41.
- 195 A.J. Bushby and D.J. Dunstan, 2004, *Plasticity size effects in nanoindentation*, *Journal of Materials Research* **19**, 137-142.
- 196 H. Hubel, N.W.A. van Uden, D.A. Faux and D.J. Dunstan, 2004, *A novel high pressure tool: the solvation pressure of liquids*, *Journal of Physics: Condensed Matter* **16**, S1181-S1186.
- 197 J.M. Skipp and D.J. Dunstan, 2004, *Harmonic and anharmonic components of third-order elastic constants*, *Physical Review* **B69**, 054105 pp. 1-5.
- 198 D.J. Dunstan and A.J. Bushby, 2004, *Theory of deformation in small volumes of materials*, *Proceedings of the Royal Society* **A460**, 2781-96.
- 199 J.W. Pomeroy, M. Kuball, H. Hubel, N.W.A. van Uden, D.J. Dunstan, R. Nagarajan and J.H. Edgar, 2004, *Raman spectroscopy of $B_{12}As_2$ at high pressure*, *Journal of Applied Physics* **96**, 910.
- 200 P. Puech, H. Hubel, D.J. Dunstan, R.R. Basca, C. Laurent and W. Basca, 2004, *Discontinuous tangential stress gradient and line broadening in external and internal carbon nanotubes*, *Physical Review Letters* **93**, 095506, pp. 1-4.
- 201 C. Piquier, F. Demangeot, J. Frandon, O. Briot, B. Mateyre, S. Ruffenach, B. Gil, J. Pomeroy, M. Kuball, H. Hubel, N. van Uden and D. Dunstan, 2004, *Raman scattering in InN films and nanostructures*, *Superlattices and Microstructures* **36**, 581-589.
- 202 A.D. Prins, J.L. Sly, D.J. Dunstan, A. Nagata and T. Kobayashi, 2004, *Measurement of conduction band minima in ordered and disordered GaInP*, *Journal of Crystal Growth* **268**, 378-383.
- 203 K.M.Y. P'ng, A.J. Bushby and D.J. Dunstan, 2004, *Deformation of small volumes of material using nanostructured strained layer superlattices*, *Materials Science and Technology* **20**, 996-998.
- 204 P. Puech, H. Hubel, D.J. Dunstan, A. Bassil, R.R. Basca, A. Peigney, E. Flahaut, C. Laurent and W. S. Basca, 2004, *Light scattering of double wall nanotubes under hydrostatic pressure: pressure effects on the internal and external tubes*, *physica status solidi (b)* **241**, 3360-3366.
- 205 C. Piquier, F. Demangeot, J. Frandon, J.W. Pomeroy, M. Kuball, H. Hubel, N.W.A. van Uden, D.J. Dunstan, O. Briot, B. Maleyre, S. Ruffenach and B. Gil, 2004, *Raman scattering in hexagonal InN under high pressure*, *Physical Review* **B70**, 113202 pp. 1-4.
- 206 S.H.B. Bosher and D.J. Dunstan, 2005, *Effective elastic constants in nonlinear elasticity*, *Journal of Applied Physics* **97**, 103505, pp. 1-7.
- 207 S.J. Lloyd, K.M.Y. P'ng, W.J. Clegg, A.J. Bushby and D.J. Dunstan, 2005, *Effect of coherency strain on the deformation of $In_xGa_{1-x}As$ superlattices under nanoindentation and bending*, *Philosophical Magazine* **85**, 2469-2490.
- 208 P. Moreau, M. Raulic, K.M.Y. P'ng, G. Gannaway, P. Anderson, W.P. Gillin, A.J. Bushby and D.J. Dunstan, 2005, *Measurement of the size effect in the yield strength of nickel foils*, *Philosophical Magazine Letters* **85**, 339-343.

- 209 K.M.Y. P'ng, A.J. Bushby and D.J. Dunstan, 2005, *Strength of coherently strained layered superlattices*, Philosophical Magazine **85**, 4429-4444.
- 210 A.S. Johal and D.J. Dunstan, 2006, *Reappraisal of experimental values of third-order elastic constants of some cubic semiconductors and metals*, Physical Review **B73**, 024106, pp. 1-9.
- 211 P. Puech, E. Flahaut, A. Sapelkin, H. Hubel, D.J. Dunstan, G. Landa and W.S. Bacsá, 2006, *Nanoscale pressure effects in individual double-wall carbon nanotubes*, Physical Review **B73**, 233408, pp. 1-4.
- 212 H. Hubel, D.J. Dunstan, D.A. Faux and R.B. Jones, 2006, *Solvation pressure in chloroform*, Journal of Chemical Physics **124**, 204506, pp.1-7.
- 213 J.E. Proctor, M.P. Halsall, A. Ghandour and D.J. Dunstan, 2006, *High pressure Raman spectroscopy of single-walled nanotubes: Effect of chemical environment on individual nanotubes and the nanotube bundle*, Journal of Physics and Chemistry of Solids **67**, 2468-2472.
- 214 A.S. Johal and D.J. Dunstan, 2006, *Reply to "Comment on 'Reappraisal of experimental values of third-order elastic constants of some cubic semiconductors and metals'"*, Physical Review B **74**, 146102, pp. 1-2.
- 215 J.E. Proctor, M.P. Halsall, A. Ghandour and D.J. Dunstan, 2006, *Effect of chemical environment on high-pressure Raman response of single-walled carbon nanotubes*, High Pressure Research **26**, 335-339.
- 216 D.J. Dunstan, K.M.Y. P'ng, T.T. Zhu, X.D. Hou, C.J. Walker and A.J. Bushby, 2007, *Strength of strained quantum wells and other small scale structures*, physica status solidi (b) **244**, 93-97.
- 217 J.E. Proctor, M.P. Halsall, A. Ghandour and D.J. Dunstan, 2007, *Raman spectroscopy of single-walled carbon nanotubes at high pressure: Effect of interactions between the nanotubes and pressure transmitting media*, physica status solidi (b) **244**, 147-150.
- 218 A.S. Johal and D.J. Dunstan, 2007, *Energy functions for rubber from microscopic potentials*, Journal of Applied Physics **101**, 084917, pp. 1-5.
- 219 T.T. Zhu, X.D. Hou, C.J. Walker, K.M.Y. P'ng, D.J. Dunstan and A.J. Bushby, 2007, *Size effect in the initiation of plasticity for ceramics in nanoscale contact loading*, Materials Research Society Symposium Proceedings **976**, EE06-12.
- 220 P.J. Berryman, D.A. Faux and D.J. Dunstan, 2007, *Solvation pressure in ethanol by molecular dynamics simulations*, Physical Review **B76**, 104303.
- 221 I.M. Herbauts and D.J. Dunstan, 2007, *Quantum molecular dynamics study of the pressure dependence of the ammonia inversion transition*, Physical Review **A76**, 062506, pp.1-5.
- 222 T.T. Zhu, A.J. Bushby and D.J. Dunstan, 2008, *Size effect in the initiation of plasticity for ceramics in nanoindentation*, Journal of the Mechanics and Physics of Solids **56**, 1170-1185.
- 223 T.T. Zhu, K.M.Y. P'ng, M.Hopkinson, A.J. Bushby and D.J. Dunstan, 2008, *Mapping of the initial volume at the onset of plasticity in nanoindentation*, Materials Research Society Symposium Proceedings **1049**, 85-91.
- 224 D.J. Dunstan, 2008, *Derivation of special relativity from Maxwell and Newton*, Philosophical Transactions of the Royal Society **A366**, 1861-1865.
- 225 T.T. Zhu, X.D. Hou, A.J. Bushby and D.J. Dunstan, 2008, *Indentation size effect at the initiation of plasticity for ceramics and metals*, Journal of Physics D: Applied Physics **41**, 074004 pp. 1-6.

- 226 P. Puech, A. Ghandour, A. Sapelkin, C. Tinguely, E. Flahaut, D.J. Dunstan and W. Basca, 2008, *Raman G-band in double-wall carbon nanotubes combining p-doping and high pressure*, Physical Review B **78**, 045413, pp.1-6.
- 227 A.J. Ghandour, D.J. Dunstan, A. Sapelkin, J.E. Proctor and M.P. Halsall, 2008, *High pressure Raman response of single-walled carbon nanotubes: Effect of the excitation laser energy*, Physical Review B **78**, 125420, pp. 1-6.
- 228 B.Ehrler, X.D. Hou, T.T. Zhu, K.M.Y. P'ng, C.J. Walker, A.J. Bushby and D.J. Dunstan, 2008, *Grain size and sample size interact to determine strength in a soft metal*, Philosophical Magazine **88**, 3043-3050. DOI: 10.1080/14786430802392548.
- 229 T.T. Zhu, A.J. Bushby and D.J. Dunstan, 2008, *Materials mechanical size effects: a review*, Materials Technology **23**, 193-209.
- 230 A.A. Brindley, R.W. Pickersgill, J.C. Partridge, D.J. Dunstan, D.M. Hunt and M.J. Warren, 2008, *Enzyme sequence and its relation to hyperbaric stability of artificial and natural fish lactate dehydrogenases*, PLoS One **3**, e2042.
- 231 P. Puech, A.W. Anwar, E. Flahaut, D.J. Dunstan, A. Bassil and W. Basca, 2009, *Raman G and D band in strongly photoexcited carbon nanotubes*, Physical Review B **79**, 085418, pp. 1-209.
- 232 A.J. Ghandour, D.J. Dunstan and A. Sapelkin, 2009, *G-mode behaviour of closed ended single wall carbon nanotubes under pressure*, physica status solidi b **246**, 491-495.
- 233 A.J. Bushby, T.T. Zhu and D.J. Dunstan, 2009, *Slip distance model for the indentation size effect at the initiation of plasticity in ceramics and metals*, Journal of Materials Research **24**, 966-972.
- 234 B. Ehrler, D.J. Dunstan, T.T. Zhu, X.D. Hou, K.M.Y. P'ng and A.J. Bushby, 2009, *The strength of thin films, small structures and materials under localised stresses*, Thin Solid Films **517**, 3781-3783.
- 235 D.J. Dunstan, B. Ehrler, R. Bossis, S. Joly, K.M.Y. P'ng and A.J. Bushby, 2009, *Elastic limit and strain-hardening of thin wires in torsion*, Physical Review Letters **103**, 155501, pp 1-4.
- 236 D.J. Dunstan and A.J. Ghandour, 2009, *High-pressure studies of carbon nanotubes*, High Pressure Research **29**, 548-553.
- 237 T.T. Zhu, B. Ehrler, A.J. Bushby and D.J. Dunstan, 2009, *Geometrical critical thickness theory for the size effect at the initiation of plasticity*, Materials Research Society Symposium Proceedings **1185**, 39-44.
- 238 A.J. Bushby and D.J. Dunstan, 2011, *Size effects in yield and plasticity under uniaxial and non-uniform loading: experiment and theory*, Philosophical Magazine **91**, 1037-1049.
- 239 A.J. Ghandour, D.J. Dunstan and A. Sapelkin, 2011, *Raman G-mode of single-wall carbon nanotube bundles under pressure*, Journal of Raman Spectroscopy **42**, 1611-1613.
- 240 D.J. Dunstan, J.U. Gallé, B. Ehrler, N.J. Schmitt, T.T. Zhu, X.D. Hou, K.M.Y. P'ng, G. Gannaway and A.J. Bushby, 2011, *Micromechanical testing with microstrain resolution*, Review of Scientific Instruments **82**, 093906.
- 241 A.J. Ghandour, D.J. Dunstan, A. Sapelkin, I. Hernandez, M.P. Halsall and I.F. Crowe, 2011, *Effect of water on resonant Raman spectroscopy of closed single-walled carbon nanotubes*, Physica Status Solidi B **248**, 2548-2551.
- 242 A.J. Ghandour, A. Sapelkin, I. Hernandez, D.J. Dunstan, I.F. Crowe and M.P. Halsall, 2012, *Raman excitation spectroscopy carbon nanotubes: effects of pressure medium and pressure*, High Pressure Research, **32**, 67-71.
- 243 C. Motz and D.J. Dunstan, 2012, *Observation of the critical thickness phenomenon in dislocation dynamics simulation of microbeam bending*, Acta Materialia **60**, 1603-1609.
- 244 D.J. Dunstan, A.J. Thomas, I. de Lavau, J.J. Jardin and A.J. Bushby, 2012, *New experimental test of strain-gradient plasticity theory: Metal foil sandwich structures in flexure*, Philosophical Magazine Letters **92**, 308-313.
- 245 K. Trachenko, E. Zardoula, I.T. Todorov, M.T. Dove, D.J. Dunstan and K. Nordlund, 2012, *Modelling high-energy radiation damage in nuclear and fusion applications*, Nuclear Instruments and Methods B **277**, 6-13.
- 246 D.J. Dunstan, J.U. Gallé, X.D. Hou, K.M.Y. P'ng, A.J. Bushby, B. Yang and D. Kiener, 2012, *Yield and plastic flow in small volumes in soft metals in tension and flexure*, Philosophical Magazine **92**, 308-313.
- 247 D.J. Dunstan, 2012, *Critical thickness theory applied to micromechanical testing*, Advanced Engineering Materials, DOI: 10.1002/adem.201200017.
- 248 D.J. Dunstan and A.J. Bushby, 2013, *The scaling exponent in the size effect of small scale plastic deformation*, Int. J. Plasticity **40**, 152-162.

In the press:

- 249 A.J. Bushby, J. Feuvrier, D.V. Dong and D.J. Dunstan, *Testing the limits of small scale plasticity with thin wires in torsion*, MRS Proceedings, accepted December 2011.
- 250 D. Liu, Y. He, D.J. Dunstan, B. Zhang, Z. Gan, P. Hu and H. Ding, *Towards a further understanding of size effects in the torsion of thin metal wires: An experimental and theoretical assessment*, Int. J. Plasticity, accepted August 2012.

