

Author Index to Volume 46

- Akera, H.—
See MacDonald, A. H. 333
- Alexiev, D.—
See Butcher, K. S. A. 317
- Badhra, A.—
See Sanyal, S. 589
- Bilger, H. R.—
See Stedman, G. E. 87
- Brennan, M. J., and Ness, K. F.—
 Momentum transfer cross section for
 e^- -Kr scattering 249
- Briggs, B. H.—
 Observations of atmospheric dynamics
 using radar techniques 127
- Burden, C. J.—
See O'Shaughnessy, D. 231
- Butcher, K. S. A., Alexiev, D., and
 Tansley, T. L.—
 Minority carrier diffusion lengths for
 high purity liquid phase epitaxial
 GaAs 317
- Cadogan, J. M., Campbell, S. J.,
 Zhao, X. L., and Wu, E.—
 Investigation of magnetic ordering in
 $RCo_{12}B_6$ ($R = Y, Nd$) by ^{57}Fe
 Mössbauer spectroscopy 679
- Cai, Y.—
See Leckey, R. 717
- Campbell, S. J. —
See Cadogan, J. M. 679
- Chakraborty, B., Paul, S. N., Sur, A. K.,
 and Kashyapi, P. K.—
 Nonlinear aspects of wave propagation in
 a magnetised plasma in the presence of
 Coriolis force 821
- Chauduri, N.—
See Sanyal, S. 589
- Chowdhury, A. R.—
See Mukhopadhyay, J. 807
- Chowdhury, K. R.—
See Mukhopadhyay, J. 807
- Choy, T. C.—
See Finlayson, T. R. 597
 McKinnon, B. A. 601
- Clark, A.—
See Jagadish, C. 435
- Collett, M. J.—
See Walls, D. F. 61
- Cram, L.—
See Spencer, S. 195
- Crompton, R. W., and Morrison, M. A.—
 Analyses of recent experimental and
 theoretical determinations of e^-H_2
 vibrational excitation cross sections:
 Assessing a long-standing
 controversy 203
- Das, M. P.—
See Neilson, D. 327, 329
- Das Sarma, S., and Hu, B. Y.-K.—
 Electronic properties of quasi-
 one-dimensional semiconductor
 nanostructures: Plasmons and
 exchange-correlation effects in
 quantum wires 359
- Delbourgo, R.—
 On parametric and dispersive
 integrals 729
- Deshmukh, P. C.—
See Padma, R. 497
- Dobson, J. F.—
 Plasmons on wide epitaxially-grown
 quantum wells 391
- Dreizler, R. M.—
See Whelan, C. T. 241
- Du, A., and Wei, G. Z.—
 Magnetic properties of layered
 Heisenberg ferromagnets 571
- Elcombe, M. M.—
See Yim, K. K. 535
- Ericson, T. E. O.—
 Recent developments in nuclear
 physics 15
- Faul, J.—
See Leckey, R. 717
- Finlayson, T. R.—
See Liu, M. 695
- Finlayson, T. R., Morgan, M. J., and
 Choy, T. C.—
 Preface to Special Issue on Electrons
 in Solids 597
- Ghosh, B.—
See Sanyal, S. 589
- Green, F.—
 Charge fluctuations in
 high-electron-mobility transistors:
 A review 447
- Halstead, T.—
See Jagadish, C. 435

- Hannaford, P.—
Foreword: Tenth AIP National Congress
Special Issue 1
- Hariharan, P.—
Optical interferometry: The
post-Michelson era 103
- Hauser, N.—
See Jagadish, C. 435
- Henderson, J. A.—
See Oitmaa, J. 613
- Hicks, T. J., and Wildes, A. R.—
The magnetic moment distribution in
ferromagnetic Co-Mn alloys 667
- Hu, B. Y.-K.—
See Das Sarma, S. 359
- Hu, C. D., and Mahanty, J.—
Quasi-particle interference effect in the
Coulomb blockade problem 583
- Hutton, D. R., and Troup, G. J.—
A pilot study of paramagnetic resonance
centres in selected Argyle
diamonds 663
- Jagadish, C., Clark, A., Larsen, C. A.,
Hauser, N., Petravic, M., Thompson,
T. D., Halstead, T., and
Williams, J. S.—
Characterisation of III-V multilayers
grown by low-pressure metal organic
vapour-phase epitaxy 435
- Johnson, M. D.—
See MacDonald, A. H. 345
- Josefsson, T. W., and Smith, A. E.—
Local-field effects in the high- q -vector
dielectric response of Si 635
- Kansal, M. K., and Trikha, S. K.—
Effect of short-range repulsive
interactions on the dynamics of the
methane molecule 305
Molecular dynamics of the phase
transition in solid deuterated
methane 523
- Kashyapi, P. K.—
See Chakraborty, B. 821
- Larsen, C. A.—
See Jagadish, C. 435
- Leckey, R., Riley, J., Cai, Y., Faul, J., and
Ley, L.—
How successfully does angle-resolved
photoemission determine the band
structure of semiconductors? 717
- Ley, L.—
See Leckey, R. 717
- Li, Z.—
See Stedman, G. E. 87
- Liley, B. S.—
Space charge effects in the Cavalleri
determination of electron diffusion
coefficients in gases 773
- Liu, G. Q., and Thomas, A. W.—
Consistent treatment of pion exchange
force and meson versus quark
dynamics in the nucleon-nucleon
interaction 737
- Liu, M., Finlayson, T. R., and
Smith, T. F.—
Low-temperature thermal expansion
anomalies in indium and its solid
solution alloys with thallium 695
- Luo, Q., and Melrose, D. B.—
Covariant formulation of the
ponderomotive force 503
- MacDonald, A. H., Akera, H., and
Norman, M. R.—
Quantum mechanics and
superconductivity in a magnetic
field 333
- MacDonald, A. H., Yang, S.-R. E., and
Johnson, M. D.—
Quantum dots in strong magnetic fields:
Stability criteria for the maximum
density droplet 345
- McKinnon, B. A., and Choy, T. C.—
A tight binding model for the density of
states of graphite-like structures,
calculated using Green's
functions 601
- Mahanty, J.—
See Hu, C. D. 583
- Melrose, D. B.—
Solar flares: Current dissipation or
magnetic annihilation? 167
See Luo, Q. 503
- Michels, A.—
See Thomas, A. W. 3
- Mitroy, J.—
Close coupling theory of
positron-hydrogen scattering 751
- Mohn, P., Supanetz, E., and Schwarz, K.—
Electronic structure and spin fluctuations
in the fcc Fe-Pd system 651
- Morgan, M. J.—
See Finlayson, T. R. 597
- Morrison, M. A.—
See Crompton R. W. 203
- Mukherjee, A.—
See Sanyal, S. 589

- Mukhopadhyay, J., Chowdhury, K. R., and Chowdhury, A. R.—
Effect of streaming and finite geometry on a resonance-like phenomenon in beam-plasma systems 807
- Neilson, D.—
See Świerkowski, L. 423
- Neilson, D., and Das, M. P.—
Foreword and Introduction to Special Issue on Nanostructure and Two-dimensional Electron Systems 327, 329
- Ness, K. F.—
See Brennan, M. J. 249
- Norman, M. R.—
See MacDonald, A. H. 333
- Norman, P.—
A heuristic account of the electron-phonon coupling mechanism in the formation of pre-martensite twinned structures 689
- O'Shaughnessy, D., and Burden, C. J.—
Variational wavefunctions for non-compact U(1) lattice gauge theory: Comparison with exact result 231
- Oitmaa, J.—
See Yim, K. K. 535
- Oitmaa, J., and Henderson, A.—
High-temperature thermodynamics of the Hubbard model 613
- Opat, G. I.—
On the effects of gravitational fields on the electrical properties of matter 647
- Osborne, C. F.—
Band structure calculations for the heavy transition metals: Parametrisation methods, band structures and problems with iteration techniques 625
- Padma, R., and Deshmukh, P. C.—
Optical oscillator strengths from 'electron impact photoionisation' in the RCE potential 497
- Pain, G. N.—
Method for production of uniform thin films from the vapour phase 121
- Paul, S. N.—
See Chakraborty, B. 821
- Pegg, D. T.—
Wave function collapse in atomic physics 77
- Perrot, F.—
See Rasolt, M. 381
- Petravic, M.—
See Jagadish, C. 435
- Poulton, M. P.—
See Stedman, G. E. 87
- Prytz, A.—
See Robson, R. E. 465
- Rasolt, M., and Perrot, F.—
Spontaneously symmetry-broken current-carrying states in nanostructures 381
- Riley, J.—
See Leckey, R. 717
- Robson, R. E.—
Anisotropic dispersion of a charged particle swarm in a turbulent gas in an electrostatic field 261
- Robson, R. E., and Prytz, A.—
The discrete ordinate/pseudo-spectral method: Review and application from a physicist's point of view 465
- Rowe, C. H.—
See Stedman, G. E. 87
- Rowe, G. W.—
Collisionless damping of fast and ion-cyclotron surface waves 271
- Saito, K.—
See Thomas, A. W. 3
- Sanyal, S., Ghosh, B., Sarkar, S. K., Badhra, A., Mukherjee, A., and Chauduri, N.—
An analysis of cosmic ray air showers for the determination of shower age 589
- Saporoschenko, M.—
See Talib, Z. A. 799
- Sarkar, S. K.—
See Sanyal, S. 589
- Schwarz, K.—
See Mohn, P. 651
- Smith, A. E.—
See Josefsson, T. W. 635
- Smith, T. F.—
See Liu, M. 695
- Spencer, S., and Cram, L.—
Large-scale magnetic fields in spiral galaxies 195
- Stedman, G. E., Bilger, H. R., Li, Z., Poulton, M. P., Rowe, C. H., Vetharaniam, I., and Wells, P. V.—
Canterbury ring laser and tests for nonreciprocal phenomena 87
- Stephens, G. L.—
Water vapour and its role in the Earth's greenhouse 149
- Storey, E. P.—
See Walls, D. F. 61

- Supanetz, E.—
 See Mohn, P. 651
- Sur, A. K.—
 See Chakraborty, B. 821
- Szymański, J.—
 See Świerkowski, L. 423
- Świerkowski, L., Neilson, D., and
 Szymański, J.—
 Electron liquid in double-layer
 structures 423
- Talib, Z. A., and Saporoschenko, M.—
 Ion-molecule reactions and mobilities of
 SF_3^+ and SF_5^+ ions in SF_6 gas 799
- Tan, S. M.—
 See Walls, D. F. 61
- Tansley, T. L.—
 See Butcher, K. S. A. 317
- Thomas, A. W.—
 See Liu, G. Q. 737
- Thomas, A. W., Saito, K., and
 Michels, A.—
 The challenge of the EMC effect 3
- Thompson, T. D.—
 See Jagadish, C. 435
- Tjemkes, S. A.—
 See Stephens, G. L. 149
- Trikha, S. K.—
 See Kansal, M. K. 305, 523
- Troup, G. J.—
 See Hutton, D. R. 663
- Vetharaniam, I.—
 See Stedman, G. E. 87
- Walls, D. F., Collett, M. J., Storey, E. P.,
 and Tan, S. M.—
 Quantum measurements in atomic
 optics 61
- Walters, H. R. J.—
 See Whelan, C. T. 241
- Walther, H.—
 Single atom experiments and the test of
 quantum physics 37
- Wei, G. Z.—
 See Du, A. 571
- Wells, P. V.—
 See Stedman, G. E. 87
- Whelan, C. T., Walters, H. R. J., and
 Dreizler, R. M.—
 Some remarks on the use of effective
 charges in the study of electron impact
 ionisation processes 241
- White, G. K.—
 Introduction to Special Issue on
 Electrons in Solids 599
 Electrons in transition metals at high
 temperatures 707
- Wildes, A. R.—
 See Hicks, T. J. 667
- Williams, J. S.—
 See Jagadish, C. 435
- Wu, E.—
 See Cadogan, J. M. 679
- Yang, S.-R. E.—
 See MacDonald, A. H. 345
- Yim, K. K., Oitmaa, J., and
 Elcombe, M. M.—
 Lattice dynamics of $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$
 ($x = 0.25, 0.5, 0.75$) 535
- Zhao, X. L.—
 See Cadogan, J. M. 679