

Index to Volume 38

- Abrahams, S. C.—
Atomic contribution to crystalline
property temperature dependence 289
- Adam, G. K.—
See Fewell, M. P. 555
- Ahsan, M. H., and Ali, S.—
Variational approach to the calculation of the
binding energy of ${}_{\Lambda\Lambda}^{31}\text{Si}$ 33
- Ali, S.—
See Ahsan, M. H. 33
- Arndt, U. W., and Thomas, D. J.—
X-ray collimation for protein
crystallography 353
- Astronomy and astrophysics*
- Cancellation of magnetic flux.
I. On the quiet Sun 855
II. In a decaying active region 929
- Contributions by R. G. Giovanelli to solar
instrumentation 769
- Contributions by R. G. Giovanelli to the
study of magnetic field structures 775
- Dynamic time dependent hexagonal
magnetoconvection 885
- Eigenvalue approach in modelling solar
magnetic structures 975
- Evidence for a common magnetic driver
for flares and quiescent
coronae/chromospheres 971
- Evolution of weak solar magnetic fields 961
- Future techniques and instrumentation in
solar-stellar physics 791
- Global oscillations and active
regions 839
- Influence of magnetic fields on convective
motions in the outer layers of the Sun 845
- Magnetic reconnection in the Earth's
magnetotail 981
- Magnetohydrodynamic tube waves: Waves
in fibrils 825
- New materials applications in solar spectral
analysis 781
- Numerical simulations of large-scale solar
magnetic fields 999
- Oscillations in sunspots 811
- Possibility of a photospheric dynamo 911
- Recent studies of magnetic canopies 919
- Relationship between coronal bright points as
seen in He I $\lambda 10830$ and the evolution of
the photospheric network magnetic
fields 875
- Solar affinity of sedimentary cycles in the late
Precambrian Elatina Formation 1027
- Sunspot cycle and solar magnetic fields.
I. Mechanism as inferred from
observation 1045
II. Interaction of flux tubes with the
convection zone 1067
- Sunspot number series envelope and
phase 1009
- Vistas on stellar-solar atmospheres 799
- Atomic and molecular physics*
- Coherent X-ray scattering by Co III 609
- Evaluation of core correlation effects in the
 $4s4p^1P^0$ state of calcium 603
- Low energy electron collision cross sections
for methane 677
- Mobility of Li^+ ions in helium and
argon 587
- Quantum-statistical analysis of low energy
sputtering 125
- Reaction rate coefficient for the clustering
of He to Li^+ at low centre of mass
energies 577
- Solar photodetachment rates of monatomic
anions 135
- Awin, A. M.—
See Husain, D. 539
- Barker, F. C.—
Calculation of the ${}^{13}\text{N}(p, \gamma){}^{14}\text{O}$ cross section
at low energies 657
- Barker, F. C., and Woods, C. L.—
States of ${}^5\text{He}$ and ${}^5\text{Li}$ 563
- Barnea, Z.—
See Stevenson, A. W. 427
- Barry, J. C., Bursill, L. A., and
Sanders, J. V.—
Electron microscope images of icosahedral
and cuboctahedral (f.c.c. packing) clusters
of atoms 437
- Bastow, T. J.—
See Moodie, A. F. 311
- Beckers, J. M.—
Contributions by R. G. Giovanelli to solar
instrumentation 769
- Future techniques and instrumentation in
solar-stellar physics 791
- Beevers, C. A., and Lipson, H.—
A brief history of Fourier methods in
crystal-structure determination 263
- Boris, J. P.—
See DeVore, C. R. 999

- Bracewell, R. N.—
Sunspot number series envelope and phase 1009
- Brown, T. C., and Mackenzie, J. K.—
Dead time correction for a position sensitive detector 329
- Burman, R. R.—
Electron outflow in axisymmetric pulsar magnetospheres 749
Poloidal flow in axisymmetric pulsar magnetospheres 97
- Burns, G. B., and Reid, J. S.—
A comparison of methods for calculating $O(^1S)$ lifetimes 647
- Bursill, L. A.—
See Barry, J. C. 437
- Cally, P. S.—
Magnetohydrodynamic tube waves: Waves in fibrils 825
- Cassidy, R. A., and Elford, M. T.—
The mobility of Li^+ ions in helium and argon 587
The reaction rate coefficient for the clustering of He to Li^+ at low centre of mass energies 577
- Christensen, A. N., Lehmann, M. S., and Nielsen, M.—
Solving crystal structures from powder diffraction data 497
- Christos, G. A.—
Bound on the number of flavours 23
- Clarebrough, L. M.—
See Forwood, C. T. 449
- Collins, J. G., Collocott, S. J., and White, G. K.—
Thermal properties of stabilized zirconia at low temperatures 617
- Collins, R. E.—
See McPhedran, R. C. 633
- Collocott, S. J.—
See Collins, J. G. 617
- Condensed matter: electronic structure, electrical, magnetic and optical properties*
Effect of the angular dependence of sputtering in fusion reactors 623
Formation energy of point defects in ionic crystals 741
- Condensed matter: structure, mechanical and thermal properties*
Anatomy of an image 471
Atomic charges and electron density partitioning 273
Atomic contribution to crystalline property temperature dependence 289
Brief history of Fourier methods in crystal-structure determination 263
Burgers vectors in secondary grain boundary dislocation structures for near $\Sigma 9$, $\Sigma 27$ and $\Sigma 81$ boundaries 449
Comparison between electron crystal scattering potentials derived from X ray electron densities and from atom muffin tin potentials 487
Computer simulation studies of the phase transition in compressible deuteroammonium chloride 733
Contribution of A. McL. Mathieson to crystallography 249
Crystal structure of triclinic colchicine hemihydrate 413
Dead time correction for a position sensitive detector 329
Deconvolution in the presence of noise using the maximum entropy principle 319
Detection of radiation damage in organic crystals 405
Dynamics of a nonlinear diatomic chain.
II. Thermodynamic properties 171
III. A molecular dynamics study 191
Electron microscope images of icosahedral and cuboctahedral (f.c.c. packing) clusters of atoms 437
Extinction in polycrystalline materials 507
Molecular dynamics simulations of liquids 209
Neutron diffraction studies of CsSCN above room temperature 85
Neutron spectrometer with a two-dimensional detector for time-resolved studies 337
Room temperature elastic behaviour of CsH_2PO_4 63
Solid state track detectors: Applications to fission related studies 359
Solving crystal structures from powder diffraction data 497
Some helical structures generated by reflexions 299
Symmetry of terms in the temperature factor for Bragg diffraction of X rays of neutrons 421
Technique and performance of powder diffraction in crystal structure studies 519
Theoretical and experimental techniques for the determination of X-ray anomalous dispersion corrections 371
Thermal properties of stabilized zirconia at low temperatures 617
Two-dimensional Ising model on a 4-6-12 lattice 227

- Two-state problem in diffraction, NMR and laser atomic spectroscopy 311
 Wavelength dependence of moderate extinction effects in an extended-face crystal of cadmium selenide 427
 X-ray collimation for protein crystallography 353
- Cook, J. L., and Rose, E. K.—
 The effect of the angular dependence of sputtering in fusion reactors 623
- Cotterill, R. M. J.—
 See Tallon, J. L. 209
- Cramer, N. F.—
 See Kirk, J. G. 715
- Crawley, G. M.—
 See Sevier, M. E. 27
- Creagh, D.—
 Theoretical and experimental techniques for the determination of X-ray anomalous dispersion corrections 371
- Cross-disciplinary physics*
 Modified solar collector flow factor 233
 Self-draining manifolds for solar collectors 633
- Delbourgo, R., and Kenny, B. G.—
 Universal features of tangent bifurcation 1
- DeVore, C. R., Sheeley, N. R., Jr, Boris, J. P., Young, T. R., Jr, and Harvey, K. L.—
 Numerical simulations of large-scale solar magnetic fields 999
- Dimmler, G.—
 See Schoenborn, B. P. 337
- Dunitz, J. D.—
 See Seiler, P. 405
- Durrant, C. J.—
 Global oscillations and active regions 839
- Elcombe, M. M.—
 See Irving, M. A. 85
- Elementary particles and fields*
 Bound on the number of flavours 23
- Elford, M. T.—
 See Cassidy, R. A. 577, 587
- Esat, M. T.—
 See Fewell, M. P. 555
- Fewell, M. P., Spear, R. H., Adam, G. K., and Esat, M. T.—
 Determination of $B(E3; 0_1^+ \rightarrow 3_1^-)$ values for the stable isotopes of cadmium 555
- Finlayson, T. R.—
 See Prawer, S. 63
- Fluids, plasmas and electric discharges*
 Dynamics of steady hexagonal magnetoconvection 41
 Existence of non-unique steady state solutions to the RMF current drive equations 157
 Higher frequency spectrum of a diffuse linear pinch with multiple ion species 143
 Reflection of magnetoionic waves from a steep density gradient.
 I. Incident extraordinary mode 687
 II. Incident ordinary mode 705
 X-ray propagation in strongly magnetized plasmas 715
- Forwood, C. T., and Clarebrough, L. M.—
 Burgers vectors in secondary grain boundary dislocation structures for near $\Sigma 9$, $\Sigma 27$ and $\Sigma 81$ boundaries 449
- Fox, P.—
 See Van der Borgh, R. 845
- Francey, J. L. A.—
 See O'Keefe, M. J. 233
- General physics*
 Large number hypothesis and Einstein's theory of gravitation 547
 Scattering at the positive energy bound states 539
 Universal features of tangent bifurcation 1
 Variational theory of reflection 113
- Geophysics, astronomy and astrophysics*
 Bianchi type I cosmological models with perfect fluid and magnetic field 239
 Bianchi type V universe with stiff fluid and electromagnetic radiation 763
 Comparison of methods for calculating $O(^1S)$ lifetimes 647
 Electron outflow in axisymmetric pulsar magnetospheres 749
 Poloidal flow in axisymmetric pulsar magnetospheres 97
- Giovanelli, R. G.—
 The sunspot cycle and solar magnetic fields.
 I. The mechanism as inferred from observation 1045
 II. The interaction of flux tubes with the convection zone 1067
- Glass, R.—
 Coherent X-ray scattering by Co III 609
 Evaluation of core correlation effects in the $4s4p^1P^0$ state of calcium 603

- Gulbis, J. M.—
See Mackay, M. F. 413
- Haddad, G. N.—
Low energy electron collision cross sections for methane 677
- Hannaford, P.—
See Moodie, A. F. 311
- Harvey, K. L.—
The relationship between coronal bright points as seen in HeI λ 10830 and the evolution of the photospheric network magnetic fields 875
See DeVore, C. R. 999
- Hayes, L. M.—
Reflection of magnetoionic waves from a steep density gradient.
I. Incident extraordinary mode 687
II. Incident ordinary mode 705
- Helmy, E. M., and Woo, S. B.—
Solar photodetachment rates of monatomic anions 135
- Henry, B. I., and Oitmaa, J.—
Dynamics of a nonlinear diatomic chain.
II. Thermodynamic properties 171
III. A molecular dynamics study 191
- Hones, E. W., Jr.—
Magnetic reconnection in the Earth's magnetotail 981
- Huang, W. N.—
See Lin, K. Y. 227
- Hugrass, W. N.—
The existence of non-unique steady state solutions to the RMF current drive equations 157
- Hurley, A. C.—
Some helical structures generated by reflexions 299
- Husain, D., Suhrabuddin, S., and Awin, A. M.—
Scattering at the positive energy bound states 539
- Irving, M. A., Elcombe, M. M., and Smith, T. F.—
Neutron diffraction studies of CsSCN above room temperature 85
- Jones, H. P.—
Recent studies of magnetic canopies 919
- Kenny, B. G.—
See Delbourgo, R. 1
- Kirk, J. G., and Cramer, N. F.—
X-ray propagation in strongly magnetized plasmas 715
- Koul, S. L.—
Solid state track detectors: Applications to fission related studies 359
- Lau, Yun-Kau—
The large number hypothesis and Einstein's theory of gravitation 547
- Lehmann, M. S.—
See Christensen, A. N. 497
- Lekner, J.—
Variational theory of reflection 113
- Lin, K. Y., and Huang, W. N.—
Two-dimensional Ising model on a 4-6-12 lattice 227
- Lipson, H.—
See Beevers, C. A. 263
- Livi, S. H. B.—
See Martin, S. F. 929
- Livi, S. H. B., Wang, J., and Martin, S. F.—
The cancellation of magnetic flux. I. On the quiet Sun 855
- Livingston, W.—
Contributions by R. G. Giovanelli to the study of magnetic field structures 775
- Lopez, J. M.—
See Murphy, J. O. 41
- Lopez, J. M., and Murphy, J. O.—
Dynamic time dependent hexagonal magnetoconvection 885
- Lynch, D. F.—
See Smith, A. E. 487
- Mackay, M. F., Morrison, J. D., and Gulbis, J. M.—
Crystal structure of triclinic colchicine hemihydrate 413
- Mackenzie, J. K.—
See Brown, T. C. 329
- McKenzie, D. R.—
See McPhedran, R. C. 633
- McPhedran, R. C., Onley, I. C., McKenzie, D. R., and Collins, R. E.—
Self-draining manifolds for solar collectors 633
- Mair, S. L.—
Symmetry of terms in the temperature factor for Bragg diffraction of X rays or neutrons 421
- Mair, S. L., and Wilkins, S. W.—
On the contribution of A. McL. Mathieson to crystallography 249
- Martin, S. F.—
See Livi, S. H. B. 855
- Martin, S. F., Livi, S. H. B., and Wang, J.—
The cancellation of magnetic flux. II. In a decaying active region 929

- Maslen, E. N., and Spackman, M. A.—
Atomic charges and electron density
partitioning 273
- Moodie, A. F., and Whitfield, H. J.—
The anatomy of an image 471
- Moodie, A. F., Wilkins, S. W., Bastow, T. J.,
and Hannaford, P.—
The two-state problem in diffraction, NMR
and laser atomic spectroscopy 311
- Morrison, J. D.—
See Mackay, M. F. 413
- Murphy, J. O.—
See Lopez, J. M. 885
- Murphy, J. O., and Lopez, J. M.—
The dynamics of steady hexagonal
magnetoconvection 41
- Narain, S.—
See Roy, S. R. 239
- Nielsen, M.—
See Christensen, A. N. 497
- Nuclear physics*
- Calculation of the $^{13}\text{N}(p, \gamma)^{14}\text{O}$ cross
section at low energies 657
- Determination of $B(E3; 0_1^+ \rightarrow 3_1^-)$ values
for the stable isotopes of cadmium 555
- Electron capture decay energies of ^{153}Gd
and ^{175}Hf 671
- States in ^{40}Ca near 12 MeV excitation from
the $^{39}\text{K}(p, \gamma)^{40}\text{Ca}$ reaction 27
- States of ^5He and ^5Li 563
- Variational approach to the calculation of the
binding energy of $^{31}_{\Lambda}\text{Si}$ 33
- Oitmaa, J.—
See Henry, B. I. 171, 191
- O'Keefe, M. J., and Francey, J. L. A.—
A modified solar collector flow factor 233
- Onley, I. C.—
See McPhedran, R. C. 633
- Osherovich, V. A.—
The eigenvalue approach in modelling solar
magnetic structures 975
- Pandey, S., and Tripathi, S. K.—
Computer simulation studies of the phase
transition in compressible
deuteroammonium chloride 733
- Pecker, J. C.—
Vistas on stellar-solar atmospheres 799
- Prawer, S., Smith, T. F., and Finlayson, T. R.—
The room temperature elastic behaviour of
 CsH_2PO_4 63
- Radeka, V.—
See Schoenborn, B. P. 337
- Reid, J. S.—
See Burns, G. B. 647
- Richardson, D. D.—
See Runciman, W. A. 741
- Rose, E. K.—
See Cook, J. L. 623
- Roy, S. R., Narain, S., and Singh, J. P.—
Bianchi type I cosmological models with
perfect fluid and magnetic field 239
- Roy, S. R., and Singh, J. P.—
A Bianchi type V universe with stiff fluid
and electromagnetic radiation 763
- Runciman, W. A., Srinivasan, B., and
Richardson, D. D.—
The formation energy of point defects in ionic
crystals 741
- Rust, D. M.—
New materials applications in solar spectral
analysis 781
- Sabine, T. M.—
Extinction in polycrystalline materials 507
- Sanders, J. V.—
See Barry, J. C. 437
- Sargood, D. G.—
See Sevier, M. E. 27
- Saxena, A. M.—
See Schoenborn, B. P. 337
- Schoenborn, B. P., Saxena, A. M., Stamm, M.,
Dimmler, G., and Radeka, V.—
A neutron spectrometer with a two-
dimensional detector for time-resolved
studies 337
- Seiler, P., and Dunitz, J. D.—
Detection of radiation damage in organic
crystals 405
- Sevier, M. E., Crawley, G. M., and
Sargood, D. G.—
States in ^{40}Ca near 12 MeV excitation from
the $^{39}\text{K}(p, \gamma)^{40}\text{Ca}$ reaction 27
- Sheeley, N. R., Jr.—
See DeVore, C. R. 999
- Singh, J. P.—
See Roy, S. R. 239, 763
- Skumanich, A.—
Evidence for a common magnetic driver
for flares and quiescent
coronae/chromospheres 971
- Smith, A. E., and Lynch, D. F.—
A comparison between electron crystal
scattering potentials derived from X ray
electron densities and from atom muffin
tin potentials 487
- Smith, T. F.—
See Irving, M. A. 85
- Prawer, S. 63

- Spackman, M. A.—
 See Maslen, E. N. 273
- Spear, R. H.—
 See Fewell, M. P. 555
- Srinivasan, B.—
 See Runciman, W. A. 741
- Stamm, M.—
 See Schoenborn, B. P. 337
- Steenstrup, S.—
 Deconvolution in the presence of noise using
 the maximum entropy principle 319
- Stevenson, A. W., and Barnea, Z.—
 Wavelength dependence of moderate
 extinction effects in an extended-face
 crystal of cadmium selenide 427
- Suhrabuddin, S.—
 See Husain, D. 539
- Sy, W. N.-C.—
 Higher frequency spectrum of a diffuse linear
 pinch with multiple ion species 143
- Tallon, J. L., and Cotterill, R. M. J.—
 Molecular dynamics simulations of
 liquids 209
- Taylor, J. C.—
 Technique and performance of powder
 diffraction in crystal structure studies 519
- Thomas, D. J.—
 See Arndt, U. W. 353
- Thomas, J. H.—
 Oscillations in sunspots 811
- Trikha, S. K.—
 See Pandey, S. 733
- Van der Borcht, R., and Fox, P.—
 The influence of magnetic fields on
 convective motions in the outer layers of the
 Sun 845
- von Dincklage, R.-D.—
 Electron capture decay energies of ^{153}Gd and
 ^{175}Hf 671
- Wang, J.—
 See Livi, S. H. B. 855
 Martin, S. F. 929
- White, G. K.—
 See Collins, J. G. 617
- Whitfield, H. J.—
 See Moodie, A. F. 471
- Wilhelm, H. E.—
 Quantum-statistical analysis of low energy
 sputtering 125
- Wilkins, S. W.—
 See Mair, S. L. 249
 Moodie, A. F. 311
- Williams, G. E.—
 Solar affinity of sedimentary cycles in the
 late Precambrian Elatina Formation 1027
- Wilson, P. R.—
 The possibility of a photospheric
 dynamo 911
- Woo, S. B.—
 See Helmy, E. M. 135
- Woods, C. L.—
 See Barker, F. C. 563
- Young, T. R., Jr.—
 See DeVore, C. R. 999
- Zirin, H.—
 Evolution of weak solar magnetic fields 961