

INDEX

PAGE	PAGE		
Alloys, Deviation from Matthiessen's Rule and Lattice Thermal Conductivity of ..	199	Bogle, G. S., and Symmons, H. F.—	
Anderson, J. S., Faulkner, E. A., and Klemperer, D. F.—		Zero-field Masers	1
Analysis of Composite Spectral-sensitivity Functions..	469	Bray, R. J.— <i>See</i> Loughhead, R. E.	97
Argon, Liquid, Electron Mobility in	105	Bray, R. J., and Loughhead, R. E.—	
Auroral Arcs at Middle Latitudes, Photometric Observations of Subvisual Red	197	High Resolution Observations of the Granular Structure of Sunspot Umbrae ..	320
Baglin, J. E. E.— <i>See</i> Thies, H. H.	21	Builder, G.—	
Bagot, C. H.— <i>See</i> Huxley, L. G. H.	303	The Lorentz Transformations	300
Bassett, I. M.—		Calcium, Scattering of High Energy Polarized Nucleons by	248
Towards a Method for the Accurate Solution of the Schrödinger Wave Equation in Many Variables—		Carbon, Scattering of High Energy Polarized Nucleons by	248
I. Formulation of the Method for an Eigenvalue Problem without Symmetry Conditions	430	Centaurus A near 1400 Mc/s ..	258
II. A Simple Numerical Illustration	441	Centaurus A, The Extended Component of	471
III. Application of the General Method to the Wave Equation without Special Symmetry	449	Conductivity, Thermal, of Alloys	199
Beryllium : Energy Spectrum of Protons from the $^7\text{Be}(d,p)^8\text{Be}$ Reaction	99	Conductivity, Thermal, of Some Gold Alloys	455
Beryllium : Spins and Parities of Levels of ^9Be below 15 MeV		Conductivity, Thermal, Use of Complete Temperature-Time Curves for Determination of, with particular Reference to Rocks	203
Beryllium : The Photoneutron Cross Section of ^9Be in the Intermediate Energy Range..	293	Corona, Solar, Occultations of the Crab Nebula by the ..	134
Birch, J. A., Kemp, W. R. G., Klemens, P. G., and Tainsh, R. J.—	21	Coulomb Wave Functions, Irregular	94
The Lattice Thermal Conductivity of Some Gold Alloys	455	Crab Nebula, Occultations of the, by the Solar Corona ..	134
Detection of Time-correlated Photons by a Coincidence Counter		Crompton, R. W.— <i>See</i> Huxley, L. G. H.	303
Dirac Continuum Radial Wave Functions		Dirac Continuum Radial Wave Functions	30

PAGE	PAGE
Doyle, H. A., Everingham, I. B., and Hogan, T. K.—	
Seismic Recordings of Large Explosions in South-eastern Australia	222
Duncan, R. A.—	
Photometric Observations of Subvisual Red Auroral Arcs at Middle Latitudes ..	197
Electron Mobility in Liquid Argon	105
Electrons Drifting and Diffusing in a Gas when Ionization and Attachment are Present ..	171
Electrons, Slow, a New Method for Measuring the Attachment of, in Gases	303
Eta Carinae Nebula near 1400 Mc/s	258
Eta Carinae Nebula, Physical Discussion of the	418
Everingham, I. B.— <i>See</i> Doyle, H. A.	222
Expansion, Thermal, of Solids..	237
Explosions, Large, Seismic Recordings of	222
Faculae Bordering Small Sun-spots near the Limb, Observations of	97
Faulkner, E. A.— <i>See</i> Anderson, J. S.	469
Filters, Dielectric, Note on Band Transmission in Multilayer ..	296
Fletcher, G. C.—	
The Thermal Expansion of Solids	237
Gardner, F. F.—	
The Effect of Sudden Ionospheric Disturbances (S.I.D.'s) on 2.28 Mc/s Pulse Reflections from the Lower Ionosphere ..	42
Gascoigne, S. C. B.—	
Note on Band Transmission in Multilayer Dielectric Filters	296
Geomagnetic Storms, Solar Radio Emission of Spectral Type IV and its Association with	404
Gerson, N. C.—	
Periodicities in Solar Radio Noise Emission	299
Giovanelli, R. G.—	
Radiative Transfer in Non-uniform Media	164
Gold Alloys, The Lattice Thermal Conductivity of Some	455
Goodwin, G. L.—	
A Discussion of Ionospheric Demodulation near Gyro Frequency	157
Gum, C. S.— <i>See</i> Kerr, F. J. ..	270
Higgins, C. S.— <i>See</i> Shain, C. A.	357
Hindman, J. V.— <i>See</i> Kerr, F. J.	270
Hindman, J. V., and Wade, C. M.—	
The Eta Carinae Nebula and Centaurus A near 1400 Mc/s. I. Observations	258
Hogan, T. K.— <i>See</i> Doyle, H. A.	222
Huxley, L. G. H.—	
The Structure of a Stream of Electrons and Ions Drifting and Diffusing in a Gas when Ionization by Collision and Molecular Attachment are Present	171
Huxley, L. G. H., Crompton, R. W., and Bagot, C. H.—	
A New Method for Measuring the Attachment of Slow Electrons in Gases ..	303
Hydrogen Gas, Neutral, in the Taurus-Orion Region ..	127
Ionosphere, Effect of Sudden Ionospheric Disturbances on 2.28 Mc/s Pulse Reflections from the Lower	42
Ionosphere of Jupiter	466
Ionospheric Demodulation near Gyro Frequency	157
Ions Drifting and Diffusing in a Gas when Ionization and Attachment are Present ..	171

PAGE	PAGE
Jaeger, J. C.—	
The Use of Complete Temperature-Time Curves for Determination of Thermal Conductivity with particular Reference to Rocks ..	203
Jupiter, The Ionosphere of ..	466
Kemp, W. R. G.— <i>See</i> Birch, J. A.	455
Kerr, F. J., Hindman, J. V., and Gum, C. S.—	
A 21 cm Survey of the Southern Milky Way ..	270
Klemens, P. G.—	
Deviation from Matthiessen's Rule and Lattice Thermal Conductivity of Alloys ..	199
<i>See also</i> Birch, J. A... . . .	455
Klemperer, D. F.— <i>See</i> Anderson, J. S.	469
Learner, A., and Robson, B. A.—	
Irregular Coulomb Wave Functions	94
Lines, Spectral, The Shape of : Tables of the Voigt Profile ..	184
Lithium : A Search for Levels of ${}^7\text{Li}$ Between 9·0 and 9·55 MeV Excitation ..	231
Little, A. G.— <i>See</i> Twiss, R. Q... . . .	77
Lorentz Transformations ..	300
Loughhead, R. E.— <i>See</i> Bray, R. J.	320
Loughhead, R. E., and Bray, R. J.—	
Observations of Faculae Bordering Small Sunspots near the Limb	97
McGee, R. X., and Murray, J. D.—	
Neutral Hydrogen Gas in the Taurus-Orion Region observed with a Multichannel 21 cm Line Receiver ..	127
McLean, D. J.—	
Solar Radio Emission of Spectral Type IV and its Association with Geomagnetic Storms	404
Maser, Amplifier, Optimum Line Width in a Reflection Cavity ..	218
Masers, Zero-field	1
Matthiessen's Rule, Deviation from, of Alloys	199
Meteor Height Distribution, Theory of the Radio-echo, in a Non-isothermal Atmosphere ..	54
Meteor Stream, Geminid, Radio Echo Observations of the ..	315
Meteor Trails, Elevation, Height, and Electron Density of Echoing Points of	65
Meteor Trails, Temporal Variation of the Heights of Reflection Points of	116
Milky Way, Southern, A 21 cm Survey of the .. .	270
Murray, J. D.— <i>See</i> McGee, R. X.	127
Neylan, A. A.—	
An Association between Solar Radio Bursts at Metre and Centimetre Wavelengths ..	399
<i>See also</i> Wild, J. P.	369
Nickel : The ${}^{58}\text{Ni}(n,p){}^{58}\text{Co}$, ${}^{58}\text{Ni}(n,2n){}^{57}\text{Ni}$, and ${}^{58}\text{Ni}(n,np){}^{57}\text{Co}$ Cross Sections at 14·1 MeV	103
Nucleons, High Energy Polarized, Scattering by Complex Nuclei	248
Occultations of the Crab Nebula by the Solar Corona ..	134
Orion : Neutral Hydrogen Gas in the Taurus-Orion Region..	127
Particle, Charged, Drift of, in a Magnetic Field of Constant Gradient	309
Perlman, H. S., and Robson, B. A.—	
Dirac Continuum Radial Wave Functions	30
Photoneutron Cross Section of ${}^9\text{Be}$ in the Intermediate Energy Range	21
Photons, Detection of Time-correlated, by a Coincidence Counter	77

PAGE	PAGE
Posener, D. W.—	
The Shape of Spectral Lines : Tables of the Voigt Profile $(a/\pi) \int_{-\infty}^{\infty} e^{-v^2 dy} / \{a^2 + (v-y)^2\}$	184
Protons, Energy Spectrum of, from the ${}^7\text{Be}(d,p){}^8\text{Be}$ Re- action	99
Purser, K. H.—	
A Search for Levels of ${}^7\text{Li}$ between 9.0 and 9.55 MeV Excitation	231
Purser, K. H., and Titterton, E. W.—	
The ${}^{58}\text{Ni}(n,p){}^{58}\text{Co}$, ${}^{58}\text{Ni}(n,2n){}^{57}\text{Ni}$, and ${}^{58}\text{Ni}(n,np){}^{57}\text{Co}$ Cross Sec- tions at 14.1 MeV	103
Radiation, Cosmic Radio : A 21 cm Survey of the Southern Milky Way	270
Radiation, Cosmic Radio : Neutral Hydrogen Gas in the Taurus-Orion Region observed with a Multichannel 21 cm Line Receiver	127
Radiation, Cosmic Radio : Physical Discussion of the Eta Carinae Nebula ..	418
Radiation, Cosmic Radio : The Eta Carinae Nebula and Centaurus A near 1400 Mc/s	258
Radiation Cosmic Radio : The Extended Component of Centaurus A	471
Radio Bursts, Location of the Sources of the 19 Mc/s Solar..	357
Radio Bursts, Solar, Association between, at Metre and Centi- metre Wavelengths	399
Radio Bursts, Solar, of Spectral Type II	327
Radio Bursts, Type III, Investi- gation of the Speed of the Solar Disturbances responsible for	369
Radio Emission, Solar, of Spectral Type IV and its Association with Geomagnetic Storms	404
Radio Noise Emission, Period- icities in Solar	299
Relativity : The Lorentz Trans- formations	300
Rishbeth, H.—	
The Ionosphere of Jupiter ..	466
Roberts, J. A.—	
Solar Radio Bursts of Spectral Type II	327
Robson, B. A.—	
Scattering of High Energy Polarized Nucleons by Com- plex Nuclei	248
See also Learner, A. ..	94
See also Perlman, H. S. ..	30
Seymour, P. W.—	
Drift of a Charged Particle in a Magnetic Field of Con- stant Gradient	309
Shain, C. A., and Higgins, C. S.—	
Location of the Sources of 19 Mc/s Solar Bursts ..	357
Sheridan, K. V.—See Wild, J. P.	369
Slee, O. B.—	
Occultations of the Crab Nebula by the Solar Corona in June 1957 and 1958 ..	134
Smith, W. E.—	
The Microwave Spectra of Isotopic Molecules of Sul- phur Dioxide	109
Solids, Thermal Expansion of..	237
Spear, R. H.—	
The Energy Spectrum of Pro- tons from the ${}^7\text{Be}(d,p){}^8\text{Be}$ Reaction	99
Spectra, Microwave, of Isotopic Molecules of Sulphur Dioxide	109
Spectral-sensitivity Functions, Analysis of Composite ..	469
Spicer, B. M.—See Thies, H. H.	21, 293
Stacey, F. D.—	
Electron Mobility in Liquid Argon	105
Sudden Ionospheric Distur- bances, Effect of, on 2.28 Mc/s Pu'se Reflections from the Lower Ionosphere	42

PAGE	PAGE
Sulphur Dioxide, Microwave Spectra of Isotopic Molecules of 109	
Sun : Association between Solar Radio Bursts at Metre and Centimetre Wavelengths .. 399	
Sun : Investigation of the Speed of the Solar Disturbances responsible for Type III Radio Bursts 369	
Sun : Location of the Sources of the 19 Mc/s Solar Bursts.. 357	
Sun : Periodicities in Solar Radio Noise Emission .. 299	
Sun : Solar Radio Bursts of Spectral Type II 327	
Sun : Solar Radio Emission of Spectral Type IV and its Association with Geomagnetic Storms 404	
Sunspot Umbrae, High Resolution Observations of the Granular Structure of .. 320	
Sunspots, Small, Observations of Faculae bordering, near the Limb 97	
Symmons, H. F.— <i>See</i> Bogle, G. S. 1	
Tainsh, R. J.— <i>See</i> Birch, J. A. 455	
Taurus-Orion Region, Neutral Hydrogen Gas observed in the 127	
Thies, H. H., and Spicer, B. M.— Spins and Parities of Levels of ^9Be below 15 MeV .. 293	
Thies, H. H., Spicer, B. M., and Baglin, J. E. E.— The Photoneutron Cross Section of ^9Be in the Intermediate Energy Range .. 21	
Titterton, E. W.— <i>See</i> Purser, K. H. 103	
Transfer, Radiative, in a Non-uniform Medium 164	
Troup, G. J.— The Optimum Line Width for the Transition used in a Reflection Cavity Maser Amplifier 218	
Twiss, R. Q., and Little, A. G.— The Detection of Time-correlated Photons by a Coincidence Counter 77	
Voigt Profile, Tables of the 184	
Wade, C. M.— The Eta Carinae Nebula and Centaurus A near 1400 Mc/s. II. Physical Discussion of the Eta Carinae Nebula 418	
The Extended Component of Centaurus A 471	
<i>See also</i> Hindman, J. V. 258	
Wave Equations, Schrödinger, Towards a Method for the Accurate Solution of the, in many Variables 430, 441, 449	
Wave Functions, Dirac Continuum Radial 30	
Wave Functions, Irregular Coulomb 94	
Weiss, A. A.— Elevation, Height, and Electron Density of Echoing Points of Meteor Trails 65	
Radio-echo Observations of the Geminid Meteor Stream 315	
Theory of the Radio-echo Meteor Height Distribution in a Non-isothermal Atmosphere 54	
The Temporal Variation of the Heights of Reflection Points of Meteor Trails 116	
Wild, J. P., Sheridan, K. V., and Neylan, A. A.— An Investigation of the Speed of the Solar Disturbances responsible for Type III Radio Bursts 369	

