

INDEX

PAGE	PAGE		
Arc, The Cold Cathode	289	Bracewell, R. N.—	
Atmosphere, Upper, Joule Heating of the	223	A Corrected Formula for the Spectral Sensitivity Function in Radio Astronomy ..	445
Atmospherics, Whistling, Ray Paths of	106	Electrical Scanning and Low Pass Filtering in Radio Astronomy ..	447
Atmospherics, Whistling, Study of. III	470	Bray, R. J., and Loughhead, R. E.—	
Auroras in the Southern Hemisphere, Distribution of ..	261	Isophotal Contour Maps of Sunspots	482
Barium Titanate Crystals, High Field Polarization Reversals in	549	Bruce, C. F.— <i>See also</i> Hill, R. M.	194
Barker, J. A.—		Bruce, C. F., and Hill, R. M.—	
Statistical Mechanics of Almost One-dimensional Systems	127	Wavenumber Reproducibility of the Radiation $2p_{10}-5d_5$ of Krypton 86 ..	152
Bays, Magnetic, at Macquarie Island	277	Bunyan, P. J.—	
Beckers, J. M.—		Carbon-Carbon Elastic Scattering	123
Motions in the Chromosphere near Sunspots	327	Burrows, K. M.—	
Berry, R. J., and Lovejoy, D. R.—		Floating Multiple Probe Systems for Plasma Measurements	162
On Klemens and Lowenthal's Paper on Deviations from Matthiessen's Rule ..	441	Carbon : A Study of the Reaction $^{12}\text{C} + ^{12}\text{C}$..	574
Bolt, B. A.—		Carbon-Carbon Elastic Scattering	123
A Seismic Experiment using Quarry Blasts near Sydney	293	Carter, A. W. L.— <i>See</i> Twiss, R. Q.	378
Bond, F. R., and Jacka, F.—		Chromosphere, Motions in the, near Sunspots	327
Distribution of Auroras in the Southern Hemisphere. II. Nightly Probability of Overhead Aurora .. .	261	Coates, D. W., and Nash, W. F.—	
Bound States and Scattering in an r^{-2} Potential	174	Sea-level Momentum Spectra of Muons	420
Bowman, G. G.—		Cole, K. D.—	
Some Aspects of Gyro-splitting in the Ionosphere ..	25	Joule Heating of the Upper Atmosphere	223
Some Effects of Nuclear Explosions on the Ionosphere	405	Magnetic Bays at Macquarie Island	277
		Cooney, G. H.—	
		The New South Wales Earthquake of May 22, 1961 ..	536
		Corrigendum	449

PAGE	PAGE		
Cosmic Rays: Sea-level Momentum Spectra of Muons	420	Elrick, D. E.— Source Functions for Diffusion in Uniform Shear Flow	283
Crompton, R. W., and Jory, R. L.— On the Swarm Method for determining the Ratio of Electron Drift Velocity to Diffusion Coefficient	451	Explosions, Nuclear, Some Effects of, on the Ionosphere	405
Crouchley, J., and Duff, K. J.— A Study of Whistling Atmos- pheric. III. Observations at Closely Spaced Stations	470	Feuerriegel, T.— New Spectrographic Lens System	527
Delves, L. M.— Deuteron Capture by Deuterons and the Struc- ture of ${}^4\text{He}$	59	Gamma Rays, Proton-capture from Nitrogen-13	443
Deuteron Capture by Deuterons	59	Geomagnetic Micropulsations	70
Deuteron Ground State Wave Functions assuming Central and r^{-2} Tensor Potentials	169	Geomagnetism : Scintillations of Radio Sources and Geo- magnetic Activity	568
Diffusion, Electron, Errors due to, in Drift Velocity Measure- ments	39	Hanscomb, J. R.— High Temperature Electrical Breakdown in Sodium Chloride	504
Diffusion in Uniform Shear Flow, Source Functions for	283	Healey, J. R.—See Mathewson, D. S.	354, 369
Dowden, R. L.— Method of Measurement of Electron Energies and Other Data from Spectrograms of V.L.F. Emissions	490	Heat Transfer from the Sphere at Low Reynolds Numbers	143
Wide-band Bursts of V.L.F. Radio Noise (Hiss) at Hobart	114	Helium : Deuteron Capture by Deuterons and the Structure of ${}^4\text{He}$	59
Duff, K. J.—See Crouchley, J.	470	Hill, E. R., and Mills, B. Y.— Source Corrections to the Sydney Radio Source Survey Catalogue	437
Earthquake, New South Wales, of May 22, 1961	536	Hill, R. M.—See also Bruce, C. F.	152
Eather, R. H.— The Cold Cathode Arc	289	Hill, R. M., and Bruce, C. F.— Limiting Precision in a Scan- ning Optical Interferometer	194
Electron Drift Velocity, Ratio of, to Diffusion Coefficient	451	Interferometer, Optical, Limit- ing Precision in a Scanning	194
Electron Energies from Spectro- grams of V.L.F. Emissions	490	Interferometry, Radio Source, at 1427 Mc/s	378
Electrons: Errors due to Dif- fusion in Drift Velocity Measurements	39	Ionosphere: Correlation be- tween Sporadic E Ionization and the Strength of the Hor- izontal Component of the Earth's Magnetic Field	236
Ellis, G. R. A.— Cyclotron Radiation from Jupiter	344	Ionosphere, Some Aspects of Gyro-splitting in the	25

PAGE	PAGE
Ionosphere, Some Effects of Nuclear Explosions on the ..	405
Ionosphere : Spread- <i>F</i> and the Perturbations of the Maximum Electron Density of the <i>F</i> Layer	242
Ionosphere : Study of Phase Fading of Ionospheric Reflections	387
Ions, Scattering : Carbon-Carbon Elastic Scattering ..	123
Jacka, F.—See Bond, F. R. ..	261
Johnson, C. H. J.—	
Heat Transfer and Mass Transfer from the Sphere at Low Reynolds Numbers ..	143
Jory, R. L.—See Crompton, R. W.	451
Jupiter, Cyclotron Radiation from	344
Kato, Y.—	
Geomagnetic Micropulsations ..	70
Komesaroff, M. M., and Mathewson, D. S.—	
Measuring the Linearity of Radio-astronomy Receivers ..	572
Krishnamurthi, M., Sivarama Sastry, G., and Seshagiri Rao, T.—	
Sudden Cosmic Noise Absorption at 29 Mc/s	
Velocities of Shock Fronts in Solar Corona generating Type II Radio Bursts at Metre Wavelengths ..	20
Krishnan, R., and Mullaly, R. F.—	
The Decimetre Wavelength Radiation associated with Type IV Solar Radio Bursts ..	120
Krypton 86, Wavenumber Reproducibility of the Radiation $2p_{10}-5d_5$ of	152
Lens System, New Spectrographic	527
Little, A. G.—See Twiss, R. Q..	378
Loughhead, R. E.—See Bray, R. J.	482
Lovejoy, D. R.—See Berry, R. J.	441
Lowke, J. J.—	
Errors due to Diffusion in Drift Velocity Measurements ..	39
McNicol, R. W. E.—See Wilkie, J. R.	236
Magnetism, Terrestrial : Correlation between Sporadic <i>E</i> Ionization and the Horizontal Component of the Earth's Magnetic Field	236
Mass Transfer from the Sphere at Low Reynolds Numbers ..	143
Mathewson, D. S.—See also Komesaroff, M. M.	572
Mathewson, D. S., Healey, J. R., and Rome, J. M.—	
A Radio Survey of the Southern Milky Way at a Frequency of 1440 Mc/s.	
I. The Isophotes and the Discrete Sources ..	354
II. The Continuum Emission from the Galactic Disk	369
Matthiessen's Rule, Deviations from	441
Meteors, Radio-echo Observations of, in the Antarctic ..	1
Milky Way, Southern, Radio Survey at 1440 Mc/s ..	354, 369
Mills, B. Y.—See Hill, E. R. ..	437
Monro, P. E.—	
A Study of Phase Fading of Ionospheric Reflections ..	387
Mullaly, R. F.—	
Ray Paths in Inhomogeneous Anisotropic Media ..	96
The Ray Paths of Whistling Atmospheres : Differential Geometry	106
See also Krishnan, T. ..	86
Muons, Sea-level Momentum Spectra of	420
Nash, W. F.—See Coates, D. W.	420
Nebulae, Extragalactic, Relation between Isophotal Diameters and Redshift of	273

	PAGE		PAGE
Nicholson, A. F.—		Radiation, Cosmic Radio :	
Bound States and Scattering in an r^{-2} Potential ..	174	Sudden Cosmic Noise Ab- sorption	20
Simple <i>S</i> and <i>D</i> Deuteron Ground State Wavefunc- tions assuming Central and r^{-2} Tensor Potentials ..	169	Radiation, Cosmic Radio :	
Nilsson, C. S., and Weiss, A. A.—		Survey of the Southern Milky Way at 1440 Mc/s ..	354, 369
Radio-echo Observations of Meteors in the Antarctic ..	1	Radiation, Cosmic Radio :	
Nitrogen - 13, Proton - capture Gamma Rays from ..	443	Use of Lunar Occultations for Investigating the Angular Structure of Radio Sources ..	333
Noise, Radio, Wide-band Bursts of V.L.F., at Hobart ..	114	Radiation, Cyclotron, from Jupiter	344
Occultations, Lunar, Use for Investigating the Angular Structure of Radio Sources	333	Radio : V.L.F. Emissions, Electron Energies from Spec- trograms of	490
O'Mahony, G.—		Radio Astronomy, A Corrected Formula for the Spectral Sen- sitivity in	445
singularities in Daily Rainfall	301	Radio Astronomy, Electrical Scanning and Low Pass Filter- ing in	447
Parker, A. W., and Shute, G. G.—		Radio-astronomy Receivers, Measuring the Linearity of ..	572
Proton-capture Gamma Rays from Nitrogen-13	443	Radio Bursts of Spectral Types II and III, Relative Position and Origin of Harmonics in the Spectra of Solar ..	180
α -Particles, Scattering by a Vibrational Nucleus ..	135	Rainfall, Singularities in Daily ..	301
Plasma Measurements, Floating Multiple Probe Systems for..	162	Ray Paths in Inhomogeneous Anisotropic Media	96
Polarization Reversals, High Field, in Barium Titanate Crystals	549	Ray Paths of Whistling Atmos- pheric	106
Pollard, H. F.—		Redshift of Extragalactic Nebulae, Relation between Isophotal Diameters and ..	273
Resonant Behaviour of an Acoustical Transmission Line	513	Rome, J. M.—See Mathewson, D. S.	354, 369
Quinton, A. R.—See Seaman, G. G.	574	Scheuer, P. A. G.—	
Radiation, Cosmic Radio : Scin- tillation of Radio Sources and Geomagnetic Activity ..	568	On the Use of Lunar Occulta- tions for Investigating the Angular Structure of Radio Sources	333
Radiation, Cosmic Radio : Source Corrections to the Sydney Radio Source Survey Catalogue	437	Seaman, G. G., and Quinton, A. R.—	
Radiation, Cosmic Radio : Source Interferometry at 1427 Mc/s	378	A Study of the Reaction $^{12}\text{C} + ^{12}\text{C}$	574
		Seismic Experiment using Quarry Blasts	293
		Seshagiri Rao, T.—See Krish- namurthi, M.	20, 120

PAGE	PAGE		
Sheridan, K. V.— <i>See</i> Smerd, S. F.	180	Sunspots, Isophotal Contour Maps of	482
Shute, G. G.— <i>See</i> Parker, A. W.	443	Sunspots, Motions in the Chromosphere near	327
Singleton, D. G.— Spread- <i>F</i> and the Perturbations of the Maximum Electron Density of the <i>F</i> Layer	242	Tassie, L. J.— Scattering of Alpha-Particles by a Vibrational Nucleus	135
Sivarama Sastry, G.— <i>See</i> Krishnamurthi, M.	20, 120	Taylor, G. W.— High Field Polarization Reversals in Liquid Electroded Barium Titanate Crystals	549
Slee, O. B.— Scintillations of Radio Sources and Geomagnetic Activity	568	Transmission Line, Acoustical, Resonant Behaviour of	513
Smerd, S. F., Wild, J. P., and Sheridan, K. V.— On the Relative Position and Origin of Harmonics in the Spectra of Solar Radio Bursts of Spectral Types II and III	180	Twiss, R. Q., Carter, A. W. L., and Little, A. G.— Radio Source Interferometry at 1427 Mc/s	378
Sodium Chloride, High Temperature Electrical Breakdown in Sphere, Heat and Mass Transfer from the, at Low Reynolds Numbers	504	Van der Borght, R.— The Relation between Isophotal Diameters and Redshift of Extragalactic Nebulae	273
Statistical Mechanics of Almost One-dimensional Systems	127	Wavenumber Reproducibility of the Radiation $2p_{10}-5d_5$ of Krypton 86	152
Sun : Decimetre Wavelength Radiation associated with Type IV Solar Radio Bursts	86	Weiss, A. A.— <i>See</i> Nilsson, C. S.	1
Sun : Relative Position and Origin of Harmonics in the Spectra of Solar Radio Bursts of Spectral Types II and III	180	Wild, J. P.— <i>See</i> Smerd, S. F.	180
Sun : Velocities of Shock Fronts in Solar Corona generating Type II Radio Bursts at Metre Wavelengths	120	Wilkie, J. R., and McNicol, R. W. E.— Correlation between Sporadic <i>E</i> Ionization and the Strength of the Earth's Magnetic Field	236

