

INDEX

	PAGE		PAGE
Aarons, J.—		Brown, A.—	
On scintillation of radio sources ..	97	Diffusion of heat from a sphere to a surrounding medium	483
Akabane, K., and Kerr, F. J.—		Brown, I. G.—	
A distant HII region in the Galaxy ..	91	Some experimental observations of the attenuation of Alfven waves in a laboratory plasma	437
Alfven waves, attenuation in a labora- tory plasma	437	Buchdahl, H. A., and Tassie, L. J.—	
Amethyst, transmission electron micro- scope study of	135	Gauge-independent theory of sym- metry. II	109
Attachment of electrons in oxygen ..	41	Butler, L. A., and Hanscomb, J. R.—	
Attachment of electrons in water vapour	541	Electrical breakdown in polycrystalline sodium chloride at 350°C	193
Bagnall, F. T., and Haydon, S. C.—		Calibrations and comparisons of refer- ence standards, reliability of	401
Pre-breakdown ionization in molecular nitrogen in $E \times B$ fields	227	Cannington, P. H.—	
Barker, A. A.—		<i>See</i> Stewart, R. J. J.	661
Monte Carlo calculations of the radial distribution functions for a proton- electron plasma	119	Carden, P. O.—	
Bhanot, V. B.—		Gross discontinuities in the magneti- zation of type II superconductors ..	257
<i>See</i> Kumar, N.	265	Centaurus A, decimetric emission and polarization of	589
Blevin, H. A., and Miller, R. B.—		Channels, closed, response to wind stresses	219
Equilibrium of a pinch discharge with a transverse rotating magnetic field	309	Charged particle motion in a time- dependent axially symmetric magnetic field	553
Bolton, J. G.—		Chow, B. S. K.—	
<i>See</i> Ekers, R. D.	669	<i>See</i> Wu, K. K. M.	59
<i>See</i> Gardner, F. F.	671	Citrine, transmission electron microscope study of	135
Bolton, J. G., Clarke, Margaret E., and Ekers, R. D.—		Clarke, Margaret E.—	
Identification of extragalactic sources between declinations -20° and -44°	627	<i>See</i> Bolton, J. G.	627
Boron: angular distributions in the reactions $^{11}\text{B}(\text{d},\text{p})^{12}\text{B}$ and $^{11}\text{B}(\text{d},\alpha)^9\text{Be}$	491	Cole, D. J.—	
Bowen's hypothesis	497	<i>See</i> Cooper, B. F. C.	589
Bowen's hypothesis: remarks on the paper by T. R. Visvanathan	503	<i>See</i> Mathewson, D. S.	665
Breakdown, electrical, in polycrystalline sodium chloride at 350°C	193	Cooper, B. F. C.—	
Brier, G. W.—		<i>See</i> Broten, N. W.	85
Remarks on the paper by T. R. Visva- nathan entitled "On Bowen's hypothe- sis"	503	Cooper, B. F. C., Price, R. M., and Cole, D. J.—	
Broten, N. W.—		A study of the decimetric emission and polarization of Centaurus A	589
<i>See</i> Mathewson, D. S.	665	Corrigenda	99, 393
Broten, N. W., Cooper, B. F. C., Gardner, F. F., Minnett, H. C., Price, R. M., Tonking, F. G., and Yabsley, D. E.—		Cosmic ray solar anisotropy, upper limiting primary rigidity of	451
Some observations at 6 cm wavelength with the Australian 210-ft radio telescope	85	Cosmic rays: effect of gravitation in the origin of cosmic particles	655
		Crab nebula, polarization of 6 cm radiation from	385

	PAGE		PAGE
Crompton, R. W., Elford, M. T., and Gascoigne, J.—		Fitzgerald, L. M., and Mansfield, W. W.—	
Precision measurements of the Townsend energy ratio for electron swarms in highly uniform electric fields ..	409	The response of closed channels to wind stresses	219
Crompton, R. W., Rees, J. A., and Jory, R. L.—		Fletcher, G. C.—	
The diffusion and attachment of electrons in water vapour	541	See Powell, D. G. M.	205
		Fluorine: parameters of two levels of the ^{17}F nucleus	7
		Force theorem, electromagnetic, for quasi-stationary currents	195
Dallimore, P. J., Lam, K. S., and Thies, H. H.—		Galaxy, distant HII region in the ..	91
The reactions of $^6\text{Li}(\gamma, d)$ and $^7\text{Li}(\gamma, t)$ below 4 MeV	389	Gardner, F. F.—	
Delves, L. M.—		Polarization of 6 cm radiation from the Crab nebula	385
A note on a soluble three-body problem	101	See also Broten, N. W.	85
Durgapal, M. C.—		Gardner, F. F., and Bolton, J. G.—	
See Gehlot, G. L.	303	A double radio source with a wide component separation	671
Durgapal, M. C., and Gehlot, G. L.—		Gascoigne, J.—	
Effect of gravitation in the origin of cosmic particles	655	See Crompton, R. W.	409
		Gehlot, G. L.—	
		See Durgapal, M. C.	655
		Gehlot, G. L., and Durgapal, M. C.—	
		Vector tetrad in cosmological red shift	303
		Glow clouds, contaminant, theoretical models for the radiance of	349
		Gopala Rao, U. V.—	
		The polarization structure of type III solar radio bursts	283
		Gravitation effect in the origin of cosmic particles	655
		Green, B., and May, R. M.—	
		Magnetohydrodynamic ionizing shock waves in a conducting medium ..	363
Ekers, R. D.—		Hanscomb, J. R.—	
See Bolton, J. G.	627	See Butler, L. A.	193
Ekers, R. D., and Bolton, J. G.—		Haydon, S. C.—	
Identification of two southern quasi-stellar objects	669	See Bagnall, F. T.	227
Electromagnetism: force theorem for quasi-stationary currents	195	Heat, diffusion from a sphere to a surrounding medium	483
Electron swarms, precision measurements of the Townsend energy ratio	409	Humble, J. E.—	
Electrons: diffusion and attachment in water vapour	541	See Jacklyn, R. M.	451
Electrons: equilibrium density distribution with a transverse rotating magnetic field	309	Hurst, C. A., and Liley, B. S.—	
Electrons: radial distribution functions for a proton-electron plasma ..	119	A theoretical analysis of the Townsend-Huxley swarm technique for electrons	521
Electrons: symmetric decomposition of two-electron wave equation	511	Hydrogen: distant HII region in the Galaxy	91
Electrons, free and attached, behaviour in oxygen	41	Hydrogen plasma, spectroscopic study of a decaying	23
Electrons, low energy, transport coefficients in crossed fields	237		
Electrons, theoretical analysis of Townsend-Huxley swarm technique for ..	521		
Elford, M. T.—			
See Crompton, R. W.	409		
Energy and dispersion in electromagnetic systems	287		
Energy level spectra for ^{118}Sn and ^{122}Sn	265	Ionization in molecular nitrogen in crossed fields	227

	PAGE		PAGE
Irons, F. E., and Millar, D. D.— A spectroscopic study of a decaying hydrogen plasma	23	Magnetization of type II superconduc- tors, discontinuities in	257
Jacklyn, R. M., and Humble, J. E.— The upper limiting primary rigidity of the cosmic ray solar anisotropy ..	451	Mansfield, W. W.— See Fitzgerald, L. M.	219
Jory, R. L.— Transport coefficients for low energy electrons in crossed electric and mag- netic fields	237	Mathewson, D. S., Broten, N. W., and Cole, D. J.— A survey of the southern sky at 30 Mc/s	665
See also Crompton, R. W.	541	Mathewson, D. S., and Milne, D. K.— A linear polarization survey of the southern sky at 408 Mc/s	635
Kalotas, T. M.— A symmetric decomposition of the two-electron wave equation for finite nuclear mass	511	May, R. M.— See Green, B.	363
Kerr, F. J.— See Akabane, K.	91	Meggitt, S. M. A.— Models of massive stars in homologous gravitational contraction	297
Krishnamurthi, M., Sivarama Sastry, G., and Seshagiri Rao, T.— Harmonic structure and band splitting of type II solar radio bursts	473	Millar, D. D.— See Irons, F. E.	23
Kumar, V.— See Kumar, N.	265	Miller, R. B.— See Blevin, H. A.	309
Kumar, N., Kumar, V., and Bhanot, V. B.— Energy level spectra for ^{118}Sn and ^{122}Sn	265	Milne, D. K.— See Mathewson, D. S.	635
Kundu, S. K.— Electromagnetic 2π decay of K_2^0 ..	395	See Price, R. M.	329
Two-stream instabilities in a plasma..	271	Minnett, H. C.— See Broten, N. W.	85
Lam, K. S.— See Dallimore, P. J.	389	Nebulae, planetary, radio survey of, south of declination 24°	187
Leipnik, R. B.— See Seymour, P. W.	553	Nicholson, A. F.— See Seymour, P. W.	553
Liley, B. S.— See Hurst, C. A.	521	Nitrogen, molecular, pre-breakdown ionization in crossed fields	227
Lithium: reactions of $^6\text{Li}(\gamma, d)$ and $^7\text{Li}(\gamma, t)$ below 4 MeV	389	Noyes, R. B.— Saint-Venant's principle in anisotropic media	479
Lloyd, K. H.— Theoretical models for the radiance of contaminant glow clouds in the upper atmosphere	349	Orchiston, D. W.— See Slee, O. B.	187
McCusker, C. B. A., Peak, L. S., and Woollcott, R. L. S.— Elastic and electromagnetic proton interactions at 3 TeV	277	Oxygen: cross section of $^{16}\text{O}(\gamma, p_0)^{15}\text{N}$ between 14 and 16 MeV	661
McLaren, A. C., and Phakey, P. P.— A transmission electron microscope study of amethyst and citrine ..	135	Oxygen, behaviour of free and attached electrons in	41
Magnetic variations, lunar, at Toolangi	567	Parker, A. W., Whitehead, R. R., and Shute, G. G.— The photonuclear giant resonance in silicon-28	15
		Peak, L. S.— See McCusker, C. B. A.	277
		Petersons, H. F., Winch, D. E., and Slaucitajs, L.— The lunar magnetic variations at Toolangi	567
		Phakey, P. P.— See McLaren, A. C.	135

	PAGE		PAGE
Photon absorption, electric dipole, in ^{32}S	1	Radiofrequency radiation, cosmic: identification of quasi-stellar objects	669
Pion decay: electromagnetic 2π decay of K_2^0	395	Radiofrequency radiation, cosmic: linear polarization survey of southern sky	635
Plasma: flow parameters in a magnetohydrodynamic shock wave in a conducting medium	363	Radiofrequency radiation, cosmic: observations at 6 cm wavelength	85
Plasma: pinch discharge with a transverse rotating magnetic field	309	Radiofrequency radiation, cosmic: Parkes catalogue of radio sources, declinations -60° to -90°	329
Plasma, hydrogen, spectroscopic study of a decaying	23	Radiofrequency radiation, cosmic: polarization of 6 cm radiation from the Crab nebula	385
Plasma, laboratory, attenuation of Alfvén waves in	437	Radiofrequency radiation, cosmic: preliminary radio survey of planetary nebulae south of declination 24°	187
Plasma, proton-electron, radial distribution functions for	119	Radiofrequency radiation, cosmic: scintillation of radio sources	97
Plasma, two-stream instabilities in	271	Radiofrequency radiation, cosmic: survey of the southern sky at 30 Mc/s	665
Polarization structure of type III solar radio bursts	283	Red shift, vector tetrad in	303
Powell, D. G. M., and Fletcher, G. C.— Thermal expansion and other properties of sodium chloride	205	Rees, J. A.— The behaviour of free and attached electrons in oxygen	41
Price, R. M.— See Broten, N. W.	85	See also Crompton, R. W.	541
See Cooper, B. F. C.	589	Resonance, photonuclear, in silicon-28	15
Price, R. M., and Milne, D. K.— The Parkes catalogue of radio sources, declination zone -60° to -90°	329	Rigidity, upper limiting primary, of cosmic ray solar anisotropy	451
Proton-electron plasma, radial distribution functions for	119	Saint-Venant's principle in anisotropic media	479
Proton flux, variation with atmospheric depth	59	Sargood, D. G., and Putt, G. D.— Angular distributions in the reactions $^{11}\text{B}(\text{d},\text{p})^{12}\text{B}$ and $^{11}\text{B}(\text{d},\alpha)^9\text{Be}$	491
Proton interactions, elastic and electromagnetic, at 3 TeV	277	Scheuer, P. A. G.— Extended radio sources. II	77
Putt, G. D.— See Sargood, D. G.	491	Scintillation of radio sources	97
Quasi-stellar objects, identification	669	Seshagiri Rao, T.— See Krishnamurthi, M.	473
Radiance of contaminant glow clouds in the upper atmosphere, theoretical models for	349	Seymour, P. W., Leipnik, R. B., and Nicholson, A. F.— Charged particle motion in a time-dependent axially symmetric magnetic field	553
Radio waves, backscatter from land and sea	317	Shute, G. G.— See Parker, A. W.	15
Radiofrequency radiation, cosmic: decimetric emission and polarization of Centaurus A	589	Silicon-28, photonuclear giant resonance	15
Radiofrequency radiation, cosmic: distant HII region in the Galaxy	91	Sivarama Sastry, G.— See Krishnamurthi, M.	473
Radiofrequency radiation, cosmic: double radio source with wide component separation	671	Slaucitajs, L.— See Petersons, H. F.	567
Radiofrequency radiation, cosmic: extended radio sources	77	Slee, O. B., and Orchiston, D. W.— A preliminary radio survey of planetary nebulae south of declination 24°	187
Radiofrequency radiation, cosmic: identification of extragalactic sources	627		

	PAGE		PAGE
Smith, W. E.—		Tassie, L. J.—	
An electromagnetic force theorem for		<i>See</i> Buchdahl, H. A.	109
quasi-stationary currents	195	Thermal expansion, sodium chloride . .	205
Energy and dispersion in electromagne-		Thies, H. H.—	
tic systems	287	<i>See</i> Dallimore, P. J.	389
Sodium chloride, polycrystalline, electri-		Three-body problem, a soluble	101
cal breakdown in, at 350°C	193	Thwaite, E. G.—	
Sodium chloride, thermal expansion and		Reliability of calibrations and com-	
other properties	205	parisons of reference standards with an	
Sparrow, J. G.—		application to a group of line standards	401
Stratospheric temperatures over		Tin: energy level spectra for ^{118}Sn and	
Australia	579	^{122}Sn	265
Spicer, B. M.—		Tonking, F. G.—	
Electric dipole photon absorption in		<i>See</i> Broten, N. W.	85
^{32}S	1	Toutenhoofd, W.—	
<i>See also</i> Stewart, R. J. J.	661	Parameters of two levels of the ^{17}F	
Standards, reference, reliability of cali-		nucleus	7
brations and comparisons of	401	Townsend energy ratio for electron	
Stars, massive, in homologous gravita-		swarms, precision measurements of . .	409
tional contraction, models of	297	Townsend-Huxley swarm technique for	
Steele, J. G.—		electrons, theoretical analysis of . .	521
Backscatter of 16 Mc/s radio waves		Transport coefficients, low energy elec-	
from land and sea	317	trons in crossed fields	237
Stewart, R. J. J., Cannington, P. H., and			
Spicer, B. M.—		Viscometers, capillary tube, new kinetic	
The $^{16}\text{O}(\gamma, p_0)^{15}\text{N}$ cross section between		energy correction for	381
14 and 16 MeV	661	Visvanathan, T. R.—	
Stewart, R. T.—		On Bowen's hypothesis	497
The speed and acceleration of the			
sources of type III and type V solar		Water vapour, diffusion and attachment	
radio bursts over large distances in		of electrons in	541
the corona	67	Wave equation, two-electron, symmetric	
<i>See also</i> Weiss, A. A.	143	decomposition of	511
Stratosphere: temperatures over Austra-		Weiss, A. A.—	
lia	579	The nature and velocity of the sources	
Sulphur: electric dipole photon absorp-		of type II solar radio bursts	167
tion in ^{32}S	1	Weiss, A. A., and Stewart, R. T.—	
Sun: harmonic structure and band		Solar radio bursts of spectral type V	143
splitting of type II radio bursts . .	473	Whitehead, R. R.—	
Sun: nature and velocity of the sources		<i>See</i> Parker, A. W.	15
of type II radio bursts	167	Winch, D. E.—	
Sun: radio bursts of spectral type V . .	143	<i>See</i> Petersons, H. F.	567
Sun: speed and acceleration of the sources		Wind stresses, response of closed channels	219
of type III and type V radio bursts . .	67	Woolcott, R. L. S.—	
Sun: type III radio bursts, polarization		<i>See</i> McCusker, C. B. A.	277
structure of	283	Wu, K. K. M., and Chow, B. S. K.—	
Superconductors, type II, gross discon-		Variation of proton flux with atmos-	
tinuities in the magnetization of . .	257	pheric depth between 10 and 50 g/cm ²	
Symmetry, gauge-independent theory of	109	at $\lambda = 47^\circ$ S. geomagnetic	59
Tanner, R. I.—		Yabsley, D. E.—	
A new kinetic energy correction for		<i>See</i> Broten, N. W.	85
capillary tube viscometers	381		