Transactions of the Faraday Society

SUBJECT INDEX-Volume 58, 1962

	PAGE
Absorption Bands of Halide Ions in Solution. Intensities of the. J. Jortner and A. Treinin	1503
in Long-chain Secondary Alcohols and their Solid Solutions. Dielectric. R. J. Meakins	1953
in the High Temperature Forms of some Alicyclic Compounds. Dielectric. R. J.	10.50
Meakins	1962
of the Electrical Double Layer. Specific. M. A. V. Devanathan and M. J.	
Fernando	368
Acceptor Molecules. Reduction Potentials and Intermolecular Charge-transfer Spectra of	300
Organic. Part 1. M. E. Peover	1656
Molecules. Reduction Potentials and Intermolecular Charge-Transfer Spectra of	
Organic. Part 2. M. E. Peover	2370
— with Bases. Interaction of Electron. Part 4. R. Foster and T. H. Thomson .	860
Acetaldehyde and Chloral. Acid Strengths of the Hydrates of Formaldehyde. R. P. Bell and	4.5.5
D. P. Onwood	1557
Acetaldoxime. Pyrolysis of. G. L. Pratt and J. H. Purnell	692
Acetic Acid and other Dissociating Vapours. Temperature Coefficient of Latent Heat and the Curvature of the Vapour Pressure Line of Formic Acid. J. W. Armitage and	
P. Gray	1746
	1740
Pathki	2134
Acetylene. Heat of Addition of Hydrogen Chloride to. Part 2 of Reaction Heats of	
Organic Compounds. J. R. Lacher, H. B. Gottlieb and J. D. Park	2348
Infra-red Spectrometric Study of the Pyrolysis of. Part 1. C. F. Cullis, G. J. Minkoff	
and M. A. Nettleton	1117
Acid Catalysis. Pressure Effect and Mechanism in. Part 9. A. R. Osborn and E. Whalley	2144
Dyes through Cellulose. Part 1 of Permeation of Dyes through Polymer Films. R. McGregor and I. Y. Mahajan	2404
— Strengths of the Hydrates of Formaldehyde, Acetaldehyde and Chloral. R. P. Bell	2484
and D. P. Onwood	1557
Activity Coefficients from Solubility Measurements. Evaluation of Dissociation Constants	1331
and, G. F. Smith	350
— of 2: 1 Electrolytes. E. A. Guggenheim.	86
— of some Tetra-Alkyl Ammonium Salts in Aqueous Solution. M. A. V. Devanathan and	
M. J. Fernando	784
Adsorbent. Surface Hydrogen Bonds and the Elastic Properties of a Solid. Y. Kozirouski	2220
and M. Folman	2228 1624
Adsorption and the Determination of the Surface Area of Solids. High Temperature.	1024
J. A. Barker and D. H. Everett	1608
—— from Solution: Thickness of the Adsorbed Layer. Miss J. V. Cornford, J. J. Kipling	1000
and E. H. M. Wright	74
of Carbon Dioxide on Nickel and the Influence of Adsorbed Species on Subsequent	
Hydrogen Chemisorption. C. M. Quinn and M. W. Roberts	569
— of Glycine and its Di-, Tri- and Tetra-Peptides by Montmorillonite. D. J. Greenland,	
R. H. Laby and J. P. Quirk	829
of Sodium Octyl and Decyl Sulphates and Octyl and Decyl Trimethylammonium	1233
Bromides at the Decane-Water Interface. D. H. Haydon and F. H. Taylor . — of Water Vapour on Insoluble Metal Halides. P. G. Hall and F. C. Tompkins.	1734
on Characterized Silicas. Thermodynamic Studies of. Part 1. J. A. Hockey and	1154
B. A. Pethica	2017
Alcohol+Pyridine Mixtures. Dielectric Behaviour of Certain. V. Sarojini	1729
Alcohols and Carbon Tetrachloride. Thermodynamic Properties of Solutions of. G. C. Paraskevopoulos, J. E. A. Otterstedt and R. W. Missen	
G. C. Paraskevopoulos, J. E. A. Otterstedt and R. W. Missen	9, 879
and their Solid Solutions. Dielectric Absorption in Long-chain Secondary. R. J.	1052
Meakins	1953
R. J. Meakins	1962
Aliphatic Sulphides. Gas-Phase Heats of Formation of Ten. Part 2 of Studies in the	1702
Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick	230
Alkylbenzenes with Deuterium on Nickel Films. Catalytic Exchange of. E. Crawford and	
C Kemball	2452

Alkylbenzenes, Group Exchange in Aluminium Trialkyls Detected by Proton Magnetic
Resonance. E. G. Hoffmann
— Radicals in γ -Irradiated Alkyl Halides. Electron Spin Resonance Spectra of. P. B.
Ayscough and C. Thomson
Reactions of. Part 1. J. C. J. Thynne.
—— Reactions of. Part 2. J. C. J. Thynne
— Reactions of. Part 3. J. C. J. Thynne.
Alumina. Low Temperature Adiabatic Calorimeter, and the Heat Capacity of α J. W.
Edwards and G. L. Kington
— Surface. Formation and Stability of Hydrocarbon Radical-Ions on a Silica J. J.
Rooney and R. C. Pink Aluminium Trialkyls Detected by Proton Magnetic Resonance. Alkyl Group Exchange in.
E. G. Hoffmann
Smith
Amino Acids in Irradiated Solutions. Reactivity of OH Radicals with Ferro-Ferricyanide,
Formate, Ethanol and. J. Rabani and G. Stein
Ammonium Iodides at the Mercury-Water Interface and the Structure of the Electrical Double
Layer. Specific Absorption of Tetra-Alkyl M. A. V. Devanathan and
M. J. Fernando
— Salts in Aqueous Solution. Activity Coefficients of some Tetra-Alkyl. M. A. V.
Devanathan and M. J. Fernando.
Sulphate Electrodeposition Baths. Buffer Characteristics of Manganous Sulphate+.
B. V. K. S. R. A. Tilak, S. R. Rajagopalan and A. N. Reddy
Analcite and Anhydrous Analcite. Self-Diffusion of Sodium Ions in. D. Barlow and I. R. Beattie
— Dielectric Properties of some Ion-Exchanged. R. M. Barrer and E. A. Saxon-
Napier
Anatase-Rutile Transformation. Factors Affecting the. Part 3 of Mechanism of Crystal
Structure Transformations. S. R. Yoganarasimhan and C. N. R. Rao
Anhydrides and Cyanohydrocarbons. Part 2 of Reduction Potentials and Intermolecular
Charge-Transfer Spectra of Organic Acceptor Molecules. M. E. Peover
Anils, Imines, Hydrocarbons and Nitro-compounds. Reactivities and Visible Spectra of
Complexes Formed by some. Part 5 of Studies of Organo-Alkali Metal Com-
plexes. A. Mathias and E. Warhurst
Anode Potential Phenomena. Part 1 of Mechanism of Kolbe's Electrosynthesis. T.
Dickinson and W. F. K. Wynne-Jones
Anodic Behaviour of the Borohydride Ion. J. P. Elder and A. Hickling
Anthracene+1(1,1-Diphenyl Ethylene) ² ⇒ Anthracene-+1,1-Diphenyl Ethylene. Equilibria
and Kinetics in the System. J. Jagur, M. Levy, M. Feld and M. Szwarc
— in Lucite. Lifetime of the Triplet State of. W. H. Melhuish and R. Hardwick.
R. Asami, S. Khanna, M. Levy and M. Szwarc
with "Living" Polystyrene. "Dormant Polymers." Complexes formed by. S. N.
Khanna, M. Levy and M. Szwarc .
Aqueous Solution. Activity Coefficients of some Tetra-Alkyl Ammonium Salts in. M. A. V.
Devanathan and M. J. Fernando
— Mechanism of Electrodeposition and Dissolution Processes of Copper in. J. O'M.
Bockris and M. Enyo
— Reactivity of Hydrogen Atoms with Ethanol and Formate in. G. Czapski, J. Rabani
and G. Stein
—— Surface Structure and Electrochemical Potential of Palladium while Absorbing Hydrogen
in. P. C. Aben and W. G. Burgers
Interface Impedance and the Apparent Electrical Resistance of Palladium Hydrides in.
J. C. Barton and F. A. Lewis Arachidic Acid Soils. Stability of. R. H. Ottewill and D. J. Wilkins
Argentinic Acid Solis. Stability Of R. H. Ottewill Bild D. J. Wilkills
Argon+Oxygen, Argon+Nitrogen, Nitrogen+Oxygen, Nitrogen+Carbon Monoxide, and Argon+Carbon Monoxide. Some Excess Thermodynamic Functions for the
Liquid Systems. R. A. H. Pool, G. Saville, T. M. Herrington, B. D. C. Shields
and L. A. K. Staveley
+Oxygen at Pressures up to 10 Atmospheres. Liquid-Vapour Equilibrium of the System.
I. Burn and F. Din
Aromatic Compounds. Electron Impact on some Halogenated. J. R. Majer and C. R.
Patrick
Atomic Valence State Energies in the Determination of Shapes of Hydride Molecules. Role
of. D. A. Hutchinson
Azide Ions. Kinetics of Anodic Nitrogen Formations from. J. G. N. Thomas.
Azo-bis-isobutyronitrile in Dimethylformamide in the Presence of Ferric Chloride and Styrene.
Kinetics of Decomposition of J. Betts, F. S. Dainton and K. J. Ivin

SUBJECT INDEX—VOLUME 58, 1962	2527
Azo Compounds. Bond Dissociation Energies in Some. B. G. Gowenlock, J. R. Majer and	PAGE
D. R. Snelling	670
J. C. Bevington and H. C. Troth	186
A. K. Tiller and G. H. Booth — Polarization Studies of Mild Steel in Cultures of Sulphate-Reducing. Part 3. G. H.	110
Booth and A. K. Tiller. Base. Decomposition of tert-Butyl Hydroperoxide Catalyzed by Nitriles and. Part 5 of	2510
Decomposition of Organic Hydroperoxides. H. Berger	1137 860
Benzene. Part 1 of Thermodynamic Studies of Adsorption on Characterized Silicas. J. A. Hockey and B. A. Pethica	2017
and Carbon Tetrachloride and of Benzene and Cyclohexane. Compressibility of Mixtures of. Part 2 of Compressibility of Liquids. G. A. Holder and E. Whalley	2108
— and Cyclohexane. Experimental Methods and Compressibility of Carbon Tetra- chloride. Part 1 of Compressibility of Liquids. G. A. Holder and E. Whalley.	2095
and Toluene. Reactions of Trifluoromethyl Radicals with. J. L. Holmes and K. O. Kutschke	333
— Proton Irradiation of. Part 1 of Decomposition of Aromatic Substances by Different Kinds of Radiation. W. G. Burns	961
	849
and Corresponding Radicals. Electronic Spectra of Mono-Alkyl-Substituted. T. F. Bindley and S. Walker	217
Benzoic Acid at 25°C. Standard Potentials in Aqueous Hydrochloric Acid Solutions containing Suppressed Succinic or p-Hydroxy H. Sadek and Th. F. Tadros.	2192
Benzophenone Free Radical Anion. Effect of Environment on the Visible Spectrum of the. Part 7 of Studies of Organo-Alkali and Alkaline Earth Metal Complexes. D. G.	2172
Powell and E. Warhurst Bicarbonate to Carbon Dioxide. Kinetics of the Conversion of. P. V. Danckwerts and	953
K. A. Melkersson Bicyclo [3,1,0]hexane. Thermal Unimolecular Isomerization of. H. M. Frey and R. C.	1832
Blood. Steady-state Diffusion of Oxygen through Whole Blood. R. C. LaForce and	697
I. Fatt BOF. Heat of Formation and Entropy of. M. Farber and J. Blauer	1451 2020
Bond Angles of Molecules and Radicals. Heats of Formation and, Part 2. J. B. Pedley.	23
Dissociation Energies in Some Azo Compounds. B. G. Gowenlock, J. R. Majer and D. R. Snelling	670
— Energies of Halogen Molecules. G. L. Caldow and C. A. Coulson	633 2285
Lengths. Electronic States of Long Polymers with Alternating. J. A. Pople and S. H. Walmsley.	441
Borohydride Ion. Anodic Behaviour of the. J. P. Elder and A. Hickling. Bromo-Trichloro-Methane. Photochemical Telomerization of Methylmethacrylate with.	1852
J. C. Robb and E. Senogles . Buffer Characteristics of Manganous Sulphate + Ammonium Sulphate Electrodeposition	708
Baths. B. V. K. S. R. A. Tilak, S. R. Rajagopalan and A. N. Reddy —— Indicator Equilibrium. Salt Effects on a. A. Indelli and G. Saglietto	795 1033
Burning of Secondary Explosive Powders by a Corrective Mechanism. J. W. Taylor. Butadiene and the Unimolecular Isomerization of Excited Vinylcyclopropane. Addition	561
of Methylene to. H. M. Frey Butanol. Heat of Combustion of. Part 6 of Thermodynamic Properties of Organic Oxygen	516
Compounds. H. A. Gundry, A. J. Head and G. B. Lewis Oxymercuration of cis- and trans-2 M. M. Kreevoy, L. L. Schaleger and J. C.	1309
Ware. Butyl Formate. Methyl-Radical-Sensitized Decomposition of n Part 3 of Reactions	2433
of Alkyl Radicals. J. C. J. Thynne Malonate. Ion Association in Solutions of Nickel Malonate and n. J. R. Brannan	1533
and G. H. Nancollas Butyrolactone. Hydrolysis of y Part 9 of Pressure Effect and Mechanism in Acid Catalysis.	354
A. R. Osborn and E. Whalley Cadmium. Lattice Spacing Relationships in the Ternary System Gold+Tin+. B. Henderson	2144
and G. U. Raynor Oxide. Semi-Conductivity and Thermoelectric Power of. E. F. Lamb and F. C.	900
Tompkins	1424
	132

	PAGE
Calcium Carbonate The Reaction CaO+CO ₂ =. Part 4 of Calcium Cyanamide Synthesis. A. J. Dedman and A. J. Owen	2027
Calcium Oxide+CO ₂ = CaCO ₃ . The Reaction. Part 4 of Calcium Cyanamide Synthesis. A. J. Dedman and A. J. Owen.	2027
Calcium Cynamide Synthesis. Part 4. A. J. Dedman and A. J. Owen	2027
Calomel. Kinetics of the Electrocrystallization of Thin films of. A. Bewick, M. Fleischmann and H. R. Thirsk	2200
Calorimeter, and the Heat Capacity of α -Alumina. Low Temperature Adiabatic. J. W.	
Edwards and G. L. Kington	1313
Acid Solutions: "Standard State" Corrections for the Combustion. J. D. Cox and A. J. Head	1839
Camphane Derivatives. Part 2 of Dielectric Relaxation Studies of Rotator Phase Solids.	
C. Clemett and M. Davies	1718
of Pseudo B. E. Conway and E. Gileadi	2493
Creak, F. S. Dainton and K. J. Ivin	326
15C and 17O N.M.R. Spectra of Metal Carbonyls Compounds. R. Bramley, B. N. Figgis and R. S. Nyholm	1893
Carbon Electrodes. Kinetics of the Electrochemical Formation of Fluorine at. A. J. Arvia and J. Bebesuk de Cusminsky	1019
— Gaseous Oxidation Reactions in the Presence of. A. Fish, N. Boden and C. F. Cullis	1968
	1299
— Dioxide. Kinetics of the Conversion of Bicarbonate to. P. V. Danckwerts and	1022
K. A. Melkersson	1832
Dedman and A. J. Owen	2027
Calorimetry of Organo-fluorine Compounds. Solubility of. J. D. Cox and	1020
A. J. Head	1839
E. Buckley and E. Whittle	536
sorption. Absorption of. C. M. Quinn and M. W. Roberts	569
+ Propylene and Carbon Dioxide+Cyclopropane Systems at Low Temperatures. Equilibrium Properties of the. G. G. Haselden and P. Snowden	1515
— Monoxide, and Argon+Carbon Monoxide. Some Excess Thermodynamic Functions	
for the Liquid Systems Argon+Oxygen, Argon+Nitrogen, Nitrogen+Oxygen, Nitrogen+. R. A. H. Pool, G. Saville, T. M. Herrington, B. D. C. Shields,	
L. A. K. Staveley	1692
Benzene and. Part 2 of Compressibility of Liquids. G. A. Holder and	
E. Whalley	2095
of Compressibility of Liquids. G. A. Holder and E. Whalley	2095
— Thermodynamic Properties of Solutions of Alcohols and. Parts 1 and 2. G. C. Paraskevopoulos, JE. A. Otterstedt and R. W. Missen	9, 879
Carbonyl Compounds. ¹⁵ C and ¹⁷ O N.M.R. Spectra of Metal. R. Bramley, B. N. Figgis and R. S. Nyholm	1893
Catalase Action. Mechanism of. P. Jones and W. F. K. Wynne-Jones	1148
Catalysis. Pressure Effect and Mechanism in. Part 9. A. R. Osborn and E. Whalley — Radiochemical Studies of Chemisorption and. Part 4. S. J. Thomson and J. L.	2144
Wishlade	1170
— Stereoregularity in Heterogeneous Ziegler-Natta. P. Cossee	1226
in the. Mordechai L. Kremer	702
Exchange of Alkylbenzenes with Deuterium on Nickel Films. E. Crawford and C. Kemball	2452
— Exchange of Hydrogen Sulphide and of Hydrogen with Deuterium on Disulphides of Molybdenum and Tungsten. R. L. Wilson C. Kemball and A. K. Galwey	583
Catalyzed by Nitriles and Base. Decomposition of tert-Butyl Hydroperoxide. Part 5 of	
Decomposition of Organic Hydroperoxides. H. Berger	1137 805
Cavities of Structure II. Inclusion Energies and Constants in the Small. Part 3 of Non-	
Stoichiometric Clathrate Compounds of Water. R. M. Barrer and D. J. Ruzicka Ceiling Temperature. Copolymerization of Pairs of Olefines with Sulphur Dioxide in the	2253
Region of I F Hazell and K I Ivin	342

SUBJECT INDEX—VOLUME 38, 1962	2529
	PAGE
Cell containing Potassium Chloride Solution. Nature of Residual Currents in a. F. S. Allison and J. A. Gledhill	95
Cells. Equations for Calculations of Liquid Diffusivities from Measurements in Diaphragm. F. A. L. Dullien and L. W. Shemilt	244
Cellulose. Acid Dyes through. Part 1 of Permeation of Dyes through Polymer Films. R. McGregor and I. Y. Mahajan	2484
— Chlorazol Sky Blue FF into. Part 2 of Diffusion of Dyes into Polymer Films. R. McGregor, R. H. Peters and J. H. Petropolous	1045
Cetane Mixtures. Heptane+. Part 5 of Self-Diffusion in Mixtures. L. Miller and P. C. Carman	1529
CH ₃ OCHCO ₂ in γ-Irradiated Potassium Methoxy-Acetate. Electron Spin Resonance of the Radical. A, Horsfield and J. R. Morton	470
Chain Processes. Mechanism of Inhibitor Action for. T. Ree, K. Yang and H. Eyring. — Reactions Involving Simultaneous First- and Second-Order Termination. Theory and Application of the Non-Stationary State Method. W. I. Bengough.	2375 716
Transfer. Studies in. Part 6. S. N. Khanna, S. R. Chatterjee, U. S. Nandi and S. R. Palit	1827
	, 2446
Dickinson and W. F. K. Wynne-Jones Charge-transfer Complexes. Effect of Solvent on $\pi - \pi$ Intermolecular. Part 4 of Inter-	388
action of Electron Acceptors with Bases. R. Foster and T. H. Thomson	860 2360
—— Spectra of Organic Acceptor Molecules. Reduction Potentials and Intermolecular. Part 1. M. E. Peover	1656
—— Spectra of Organic Acceptor Molecules. Reduction Potentials and Intermolecular. Part 2. M. E. Peover	2370
Chemisorption. Adsorption of Carbon Dioxide on Nickel and the Influence of Adsorbed Species on Subsequent Hydrogen. C. M. Quinn and M. W. Roberts	569
— and Catalysis. Radiochemical Studies of. Part 4. S. J. Thomson and J. L. Wishlade Chlorazol Sky Blue FF into Cellulose. Part 2 of Diffusion of Dyes into Polymer Films.	1170
R. McGregor, R. H. Peters and J. H. Petropolous Chlorides. Velocity Constants in the Decomposition of Nitryl and Nitrosyl. P. G. Ashmore	1045
and M. G. Burnett	1801 275
Thomas	262
and D. P. Onwood	1557
Broadening in Packed Gas. P. C. van Berge, P. C. Haarhoff and V. Pretorius. Chromium-Dye Complexes. Part 3 of Complex Formation—Data for Solochrome Violet R. E. Coates and B. Rigg.	2272
Citric Acid Monohydrate. Heat Capacity, Enthalpy and Entropy of. D. M. Evans, F. E. Hoare and T. P. Melia	1511
Clathrate Compounds of Water. Non-Stoichiometric. Parts 2, 3 and 4. R. M. Barrer	1511
and D. J. Ruzicka	543
Kinetics of Isotopic Exchange Reactions. N. S. Biradar, D. R. Stranks and M. S. Vaidya	2421
Cobaltous Ammines. Electron Exchange between Cobaltic Hexammine and. Part 7 of Kinetics of Isotopic Exchange Reactions. N. S. Biradar, D. R. Stranks and	
M. S. Vaidya Collisional Interference between Molecules Transporting Momentum or Energy in Gases.	2421
P. G. Wright and P. Gray Collision-Free Sampling Systems. Theory and Application of Molecular-Beam Techniques for the Design of. Parts 3, 4 and 5. C. W. Nutt and A. J. Biddlestone	1
Combustion Calorimetry of Organofluorine Compounds. Solubility of Carbon Dioxide in Hydrofluoric Acid Solutions: "Standard State" Correction for the. J. D. Cox	, 1376
and A. J. Head	1839 88
— Formation Solochrome Violet R. Part 4. E. Coates and B. Rigg Complexes formed by Anthracene with "Living" Polystyrene. "Dormant Polymers."	2058
S. N. Khanna, M. Levy and M. Szwarc — of Linear Polymers. Charge-Transfer. W. Slough.	747 2360
Compressibility of Dilute Solutions of Sulphur Acid. P. L. Khare	363

	PAGE
Compressibility of Liquids. Parts 1 and 2. G. A. Holder and E. Whalley . 2095 Compressibilities of some Electrolyte Solutions in Relation to their Stepwise Dissociation.	, 2108
P. L. Khare	359
Conductance of Potassium Chloride in the Solid State. A. R. Allnatt and P. W. M. Jacobs Conductivity of Phthalocyanine and of Copper Phthalocyanine under High Pressure.	116
Electrical. R. S. Bradley, J. D. Grace and D. C. Munro. Copolymerization. Diffusion-Controlled Termination in Free Radical. J. N. Atherton	776
and A. M. North . — of Pairs of Olefines with Sulphur Dioxide in the Region of the Ceiling Temperature.	2049
J. E. Hazell and K. J. Ivin	342
Physical Properties of Vinyl Polymers. R. B. Beevers	1465
C. Paton	3, 737
Copper in Aqueous Solutions. Mechanism of Electrodeposition and Dissolution Processes of. J. O'M. Bockris and M. Enyo	1187
Phthalocyanine under High Pressure. Electrical Conductivity of Phthalocyanine and of. R. S. Bradley, N. D. Grace and D. C. Munro.	776
Counterions. Formation of Micelles with Mixed. J. M. Corkill and J. F. Goodman.	206
Critical Temperatures of some Organo Cyclic Compounds. D. CH. Cheng, J. C. McCoubrey and D. G. Phillips	224
Cryolite+Sodium Aluminate. Structural Interpretation of the System. J. L. Holm	1104
Cryoscopic Studies. Infra-red, Ultra-violet, N.M.R. and. Hydrogen Bonding in Thiol-	
benzoic Acid. A. S. N. Murthy, C. N. R. Rao, A. D. N. Rao and P. Venkateswarlu	855
Crystal Structure of Magnetite. Electron Diffraction Study on the Magnetic. S. Yamaguchi	1690
—— Transformations. Mechanism of. Part 3. S. R. Yoganarasimhan and C. N. R. Rao	1579
Current Measurements. Evaluation of Dielectric Loss Data from Direct. G. Williams .	1041
Currents in a Cell containing Potassium Chloride Solution. Nature of Residual. F. S. Allison	1041
	05
and J. A. Gledhill Cyanohydrocarbons. Anhydrides and. Part 2 of Reduction Potentials and Intermolecular	95
Charge-Transfer Spectra of Organic Acceptor Molecules. M. E. Peover. Cyclic Compounds. Critical Temperatures of some Organo. D. CH. Cheng. J. C.	2370
McCoubrey and D. G. Phillips	224
Cyclohexane. Compressibility of Mixtures of Benzene and Carbon Tetrachloride and of Benzene and. Part 2 of Compressibility of Liquids. G. A. Holder and E.	
Whalley	2108
Experimental Methods and Compressibility of Carbon Tetrachloride, Benzene and. Part 1 of Compressibility of Liquids. G. A. Holder and E. Whalley.	2095
Cyclopropane Systems at Low Temperatures. Equilibrium Properties of the Carbon Dioxide + Propylene and Carbon Dioxide+. G. G. Haselden and P. Snowden	1515
Decane-Water Interface. Adsorption of Sodium Octyl and Decyl Sulphates and Octyl and	1000
Decyl Trimethylammonium Bromides at the. D. H. Haydon and F. H. Taylor	1233
Decay Measurements. Significance of E.M.F. B. E. Conway and P. L. Bourgault	593
Decomposition of Aromatic Peroxyacids in Aqueous Alkali. J. F. Goodman, P. Robson and	1016
E. R. Wilson	1846
— of Aromatic Substances by different Kinds of Radiation. Part 1. W. G. Burns.	961
of azo-bis-isobutyronitrile in Dimethylformamide in the Presence of Ferric Chloride and Styrene. Kinetics of. J. Betts, F. S. Dainton and K. J. Ivin	1203
of n-Butyl Formate. Methyl-Radical-Sensitized. Part 3 of Reactions of Alkyl Radicals. J. C. J. Thynne	1533
— of Ethyl Formate. Methyl Radical Photosensitized. Part 1 of Reactions of Alkyl Radicals. J. C. J. Thynne	676
of Gaseous Dimethyl Carbonate. Methyl-Radical-Sensitized. J. C. J. Thynne and P. Gray	2403
— of Hydrogen Peroxide by Ferric Ions. Nature of Intermediates in the Catalytic. Mordechai L. Kremer.	702
— of Nickel Oxalate Dihydrate. Thermal. P. W. M. Jacobs and A. R. T. Kureishy	551
of Nitrogen Dioxide. Concurrent Molecular and Free Radical Mechanisms in the	331
Thermal. P. G. Ashmore and M. G. Burnett	253
of Nitryl and Nitrosyl Chlorides. Velocity Constants in the. P. G. Ashmore and	1001
M. G. Burnett	1801
of Magnesium Hydroxide. Thermal. P. J. Anderson and R. F. Horlock	1993
of Organic Hydroperoxides. Part 5. H. Berger	1137
— of n-Propyl and isoPropyl Formates. Methyl Radical Photosensitized. Part 2 of Reactions of Alkyl Radicals. J. C. J. Thynne	1394
Decyl Sulphates and Octyl and Decyl Trimethylammonium Bromides at the Decane-Water	
Interface. Adsorption of Sodium Octyl and. D. H. Haydon and F. H. Taylor	1233
Defects. Electrostatic Energies in Ice and the Formation of. N. V. Cohan, M. Cotti, J. V. Iribarne and M. Weissmann	490

SUBJECT INDEX—VOLUME 36, 1902	2551
	PAGE
Detergent. Effect of Temperature on the Micelle Size of a Homogeneous Non-Ionic. R. R. Balmbra, J. S. Clunie, J. M. Corkill and J. F. Goodman	1661
Deuterated Ethyl and isopropyl Acetates and Ethyl Formate under Electron Impact. Ion-	
ization and Dissociation of. E. W. Godbole and P. Kebarle	1897
Galwey on Nickel Films. Catalytic Exchange of Alkylbenzenes with. E. Crawford and	583
C. Kemball Dialkyl Substituted Benzene Radicals. Emission Spectra of. T. F. Bindley, A. T. Watts	2452
and S. Walker Diamagnetic Study of Positional Isomerism. S. Sriraman and R. Sabesan. Diaphragm Cells. Equations for Calculations of Liquid Diffusivities from Measurements	849 1080
in. F. A. L. Dullien and L. W. Shemilt Dibenzyl Sulphide, Diphenyl Disulphide, 4-thia-1-hexene and 4-thia-5,5-dimethyl-1-hexene.	244
Gas-Phase Heats of Formation of Diphenyl Sulphide. Part 3 of Studies in the Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick.	238
Dichloroethylene. cis-1,2 Part 6 of Photochlorination Studies. P. B. Ayscough, A. J.	
Cocker, F. S. Dainton and S. Hirst — Concurrent Geometrical Isomerization of cis- and trans-1,2 Part 5 of Photochlorin-	295
ination Studies. P. B. Ayscough, A. J. Cocker and F. S. Dainton	284
A. J. Cocker, F. S. Dainton, and S. Hirst	318
Dichlorotetrafluoroacetone. Gas Phase Photolysis of 1,3. Part 1 of Photodecomposition of Halogenated Ketones. R. Bowles, J. R. Majer and J. C. Robb	1541
Dielectric Absorption in the High Temperature Forms of Some Alicyclic Compounds. R. J. Meakins	1962
— Absorption in Long-Chain Secondary Alcohols and their Solid Solutions. R. J. Meakins	1953
— Behaviour of Certain Alcohol+Pyridine Mixtures. V. Sarojini	1729
— Loss Data from Direct Current Measurements. Evaluation of. G. Williams — Loss in Solutions of Weak Electrolytes. R. P. Bell and R. R. Robinson	1041 2358
Properties of Basic Sodalite and a Silver Nitrate-Zeolite Complex. R. M. Barrer	2550
and E. A. Saxon-Napier —— Properties of some Ion-Exchanged Analcites. R. M. Barrer and E. A. Saxon-Napier	145
Relaxation Studies of Rotator Phase Solids. Parts 1 and 2. C. Clemett and	156
Diffraction Investigation of the Molecular Structure of N-Methyl-aminotrimethylsilane.	1718
Electron. W. R. Roper and C. J. Wilkins Study on the Magnetic Crystal Structure of Magnetite. Electron. S. Yamaguchi Structure of Magnetite.	1686 1690
Diffusion Controlled Dissolution or Growth Kinetics. Effect of the Moving Boundary on Molecular. A. R. Cooper, Jr	2468
— Controlled Termination in Free Radical Copolymerization. J. N. Atherton and A. M. North	2049
— in Mixtures. Self. Part 5. L. Miller and P. C. Carman	1529
Petropoulos	771
Petropolous	1054 1451
— Problem for Thermal Dissociation or Gas-Condensed Phase Equilibria Measured Statically. Solution of the Thermal. A. F. Reid	662
Diffusivities from Measurements in Diaphragm Cells. Equations for Calculations of Liquid. F. A. L. Dullien and L. W. Shemilt.	244
Dilution Studies. Part 2 of Solvent Extraction from Halide Solutions. A. T. Casey and A. G. Maddock	918
Dimensional Change. Analysis of the Forces in Protein. P. T. Speakman and B. D. Stone. Dimeric-Dinegative Ions. Exchange between Diphenyl Ethylene and its. Chemistry of	622
	1809
Thynne and P. Gray	2403
of azo-bis-isobutyronitrile in. J. Betts, F. S. Dainton and K. J. Ivin Formamide. Nitrogen Nuclear Resonances in. D. Herbison-Evans and R. E. Richards	1203
—— Sulphone. Thermodynamic Properties of Dimethyl Sulphoxide and. H. Mackle and	845
	845
P. A. G. O'Hare	

	PAGE
Dinaphthyls. Structure and Viscosity of Melts of Phenyl Naphthalenes and. E. H. Binns and K. H. Squire.	762
Diphenyl Disulphide, 4-thia-1-hexene and 4-thia-5,5-dimethyl-1-hexene. Gas-Phase Heats of Formation of Diphenyl Sulphide, Dibenzyl Sulphide. Part 3 of Studies in	.02
the Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick. — Ethylene and its Dimeric-Dinegative Ions. Exchange between. Chemistry of Radical-	238
Ions. G. Spach, H. Monteiro, M. Levy and M. Szwarc	1809
— Ethylene. Equilibria and Kinetics in the System Anthracene+½(1,1-Diphenyl Ethylene) ² ⇒Anthracene ⁻ +1,1. J. Jagur, M. Levy, M. Feld and M. Szwarc	2168
— Sulphide, Dibenzyl Sulphide, Diphenyl Disulphide, 4-thia-1-hexene and 4-thia-5,5-dimethyl-1-hexene. Gas-Phase Heats of Formation. Part 3 of Studies in the	
Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick. Dipoles. Carbon-Halogen. Part 2 of Infra-red Solvent Shifts and Molecular Interactions.	238
H. E. Hallam and T. C. Ray. Dipyrromethenes. Porphyrins and. Part 8 of Semiconductivity of Organic Substances.	1299
D. D. Eley and D. I. Spivey	405 2139
Dissociating Vapours. Temperature Coefficient of Latent Heat and the Curvature of the	
Vapour Pressure Line of Formic Acid, Acetic Acid and other. J. W. Armitage and P. Gray	1746
Dissociation. Compressibilities of Some Electrolyte Solutions in Relation to their Stepwise. P. L. Khare	359
— Constant of Formic Acid. Secondary Hydrogen Isotope Effect in the. R. P. Bell and J. E. Crooks	1409
Constants and Activity Coefficients from Solubility Measurements. Evaluation of. G. F. Smith	
— Energies in Some Azo Compounds. Bond. B. G. Gowenlock, J. R. Majer and D. R.	350
Snelling Energies of Gaseous Molecules and of Heats of Vaporization of Solids. Correlation	670
of. Part 1. G. Verhaegen, F. E. Stafford, P. Goldfinger and M. Ackerman — in the Organic Phase. Part 3 of Solvent Extraction from Halide Solutions. A. G.	1926
Maddock, W. Smulek and A. J. Tench	923
R. Asami, S. Khanna, M. Levy and M. Szwarc of Deuterated Ethyl and isopropyl Acetates and Ethyl Formate under Electron Impact.	1821
Ionization and. E. W. Godbole and P. Kebarle or Gas-Condensed Phase Equilibria Measured Statically. Solution of the Thermal	1897
Diffusion Problem for Thermal. A. F. Reid. Dissolution or Growth Kinetics. Effect of the Moving Boundary on Molecular Diffusion	662
Controlled. A. E. Cooper, Jr.	2468
Processes of Copper in Aqueous Solutions. Mechanism of Electrodeposition and. J. O'M. Bockris and M. Enyo	1187
Distribution of Nitric Acid between Water and Organic Solvents Containing Tri-n-Octyl Amine. J. M. P. J. Verstegen	1878
Disulphides of Molybdenum and Tungsten. Catalytic Exchange of Hydrogen Sulphide and of Hydrogen with Deuterium on. R. L. Wilson, C. Kemball and A. K. Galwey	583
Dye Stability Constants. Some Metal Part 4 of Complex Formation Solochrome Violet R. E. Coates and B. Rigg.	2058
Dyes into Polymer Films. Diffusion of. Part 1. R. McGregor, R. H. Peters and J. H. Petropoulos	771
— into Polymer Films. Diffusion of. Parts 2 and 3. R. McGregor, R. H. Peters and	
J. H. Petropolous	, 1054 2484
Effusion and Thermistor Manometer Methods. Vapour Pressure and Latent Heat of Sublimation at 25°C by the. Part 2 of Thermodynamic Properties of Ferrocene.	2101
J. W. Edwards and G. L. Kington	1323
Elastic Properties of a Solid Adsorbent. Surface Hydrogen Bonds and the. Y. Kozirouski and M. Folman	2228
Electrical Double Layer. Specific Absorption of Tetra-Alkyl-Ammonium Iodides at the Mercury-Water Interface and the Structure of the. M. A. V. Devanathan and M. J.	2220
Fernando Resistance of Palladium Hydrides in Aqueous Solutions. Interface Impedance and the	368
Apparent. J. C. Barton and F. A. Lewis	103
Electrochemical Formation of Fluorine at Carbon Electrodes. Kinetics of the. A. J. Arvia and J. Bebczuk de Cusminsky	1019
— Potential of Palladium while Absorbing Hydrogen in Aqueous Solution. Surface Structure and. P. C. Aben and W. G. Burgers	1989
Electrocrystallization of Thin Films of Calomel. Kinetics of the. A. Bewick, M. Fleischmann and H. R. Thirsk	2200

SUBJECT INDEX—VOLUME 58, 1962	2533
Electrodescribles and Dissolution Processes of Companies Agreedy Solutions - Machanism	PAGE
Electrodeposition and Dissolution Processes of Copper in Aqueous Solutions. Mechanism of. J. O'M. Bockris and M. Enyo	1187
— Baths. Buffer Characteristics of Manganous Sulphate+Ammonium Sulphate. B. V. K. S. R. A. Tilak, S. R. Rajagopalan and A. N. Reddy	795
— of γ-Manganese Dioxide. Kinetics of. M. Fleischmann, H. R. Thirsk and I. M. Tordesillas	1865
Electrode Reactions at Appreciable Surface Coverage. Kinetic Theory of Pseudo-Capacitance and. B. E. Conway and E. Gileadi	2493
— Standard Potential of the β -Manganese Dioxide. A. K. Covington, T. Cressey, B. G.	
Lever and H. R. Thirsk	1975
J. Bebczuk de Cusminsky	1019
P. L. Khare	359 86
— by a Cation Exchange Resin. Uptake of. M. G. T. Shone	805
Electric Fields. Method for Studying Chemical Interactions of. M. M. Breuer	1008
— Dielectric Loss in Solutions of Weak. R. P. Bell and R. R. Robinson	2358
F. Heinmets Electron Acceptors with Bases. Interaction of. Part 4. R. Foster and T. J. Thomson	788 860
—— Affinities. Determination of. Part 4. D. A. Ansdell and F. M. Page Diffraction Investigation of the Molecular Structure of N-Methyl-aminotrimethyl-	1084
silane. W. R. Roper and C. J. Wilkins	1686 1690
Exchange between Cobaltic Hexammine and Cobaltous Ammines. Part 7 of Kinetics	
of Isotopic Exchange Reactions. N. S. Biradar, D. R. Stranks and M. S. Vaidya —— Impact on some Halogenated Aromatic Compounds. J. R. Majer and C. R. Patrick.	2421 17
——— Ionization and Dissociation of Deuterated Ethyl and Isopropyl Acetates and Ethyl Formate under. E. W. Godbole and P. Kebarle	1897
—— Measurement of some Organomercury Compounds. B. G. Gowenlock, R. M. Haynes and J. R. Majer	1905
— Molecular-Orbital Calculations for Inorganic Systems. Free. Part 1. D. Chapman and T. C. Waddington	1679
— Resonance. Radical Oxidation Studied by. C. H. Bamford and J. C. Ward	971
Spin Resonance of the Radical CH ₃ OCHCO ₂ in γ-Irradiated Potassium Methoxy-Acetate. A. Horsfield and J. R. Morton	470
— Spectra of Alkyl Radical in γ-Irradiated Alkyl Halides. P. B. Ayscough and C. Thomson Electronic Processes in Paraffinic Hydrocarbons. Part 1. W. L. McCubbin	1477 2307
—— Spectra of Mono-Alkyl-Substituted Benzenes and Corresponding Radicals. T. F. Bindley and S. Walker .	217
— States of Long Polymers with Alternating Bond Lengths. J. A. Pople and S. H.	
Walmsley Electrophoretic Boundary Patterns Obtained with Alternating Electric Fields. Method for	441
Studying Chemical Interactions of Electrolytes by the Evaluation of. M. M. Breuer	1008
Electrostatic Energies in Ice and the Formation of Defects. N. V. Cohan, M. Cotti, J. V. Iribarne and M. Weissmann.	490
Electrosynthesis. Mechanism of Kolbe's. Parts 1, 2 and 3. T. Dickinson and W. F. K. Wynne-Jones	8 400
E.M.F. Decay Measurements. Significance of. B. E. Conway and P. L. Bourgault.	593 1789
Emission from Nitrogen Dioxide. Thermal. B. P. Levitt	
S. Walker	849
P. G. Wright and P. Gray Transfer. Vibrational-Rotational. Part 5 of Transition Probability in Molecular	1
Encounters. T. L. Cottrell and A. J. Matheson	2336
Stoichiometric Clathrate Compounds of Water. R. M. Barrer and D. J. Ruzicka — and Volumes of Mixing. Free. Part 1 of Thermodynamic Properties of Solutions	2253
of Alcohols and Carbon Tetrachloride. G. C. Paraskevopoulos and R. W.	970
Missen — in Hydrocarbons. Bond. H. J. Bernstein	869 2285
— in Ice and the Formation of Defects. Electrostatic. N. V. Cohan, M. Cotti, J. V. Iribarne and M. Weissmann.	490
— in some Azo Compounds. Bond Dissociation. B. G. Gowenlock, J. R. Majer and D. R. Snelling	670

	PAGE
Energies in the Determination of Shapes of Hydride Molecules. Role of Atomic Valence State. D. A. Hutchinson	1669
— of Gaseous Molecules and of Heats of Vaporization of Solids. Correlation of Dis-	
sociation. Part 1. G. Verhaegen, F. E. Stafford, P. Goldfinger and M. Ackerman — of Halogen Molecules. Bond. G. L. Caldow and C. A. Coulson	1926 633
Enthalpies of Formation of P ₄ O ₁₀ and H ₃ PO ₄ . Heat of Combustion of Phosphorus and the.	
W. S. Holmes	1916
Hoare and T. P. Melia	1511
Entropy of BOF. Heat of Formation and. M. Farber and J. Blauer	2020
— of Citric Acid Monohydrate. Heat Capacity, Enthalpy and. D. M. Evans, F. E. Hoare and T. P. Melia	1511
Enzyme Reactions. Departure from the Steady State in Two-Intermediate. H. Shin	1439
Equations for Calculations of Liquid Diffusivities from Measurements in Diaphragm Cells. F. A. L. Dullien and L. W. Shemilt	244
Equilibria and Kinetics in the System Anthracene+ ½(1,1-Diphenyl Ethylene) ⇒ Anthracene	
+1,1-Diphenyl Ethylene. J. Jagur, M. Levy, M. Feld and M. Szwarc between Low-Molecular-Weight Poly-α-Methyl Styrenes and their Monomer. A.	2168
Vrancken, J. Smid and M. Szwarc.	2036
— Measured Statically. Solution of the Thermal Diffusion Problem for Thermal Dissociation or Gas-Condensed Phase. A. F. Reid	662
Equilibrium of the System Argon+Oxygen at Pressures up to 10 Atmospheres. Liquid-	002
Vapour. I. Burn and F. Din	1341
—— Properties of the Carbon Dioxide+Propylene and Carbon Dioxide+Cyclopropane Systems at Low Temperatures. G. G. Haselden and P. Snowden	1515
—— Salt Effects on a Buffer Indicator. A. Indelli and G. Saglietto	1033
Etching of Graphite Surfaces with Oxygen. E. E. Glenda Hughes, B. R. Williams and J. M. Thomas	2011
Ethane with a Clean Rhodium Film. Reaction of. R. W. Roberts	1159
Ethanol and Amino Acids in Irradiated Solutions. Reactivity of OH Radicals with Ferro- Ferricyanide, Formate. J. Rabani and G. Stein	2150
and Formate in Aqueous Solution. Reactivity of Hydrogen Atoms with. G. Czapski,	2130
J. Rabani and G. Stein.	1260
Ethylene-C-14 on the Surface of Nickel Films during Hydrogenation. Direct Observation of. Part 4 of Radiochemical Studies of Chemisorption and Catalysis. S. J. Thomson	
and J. L. Wishlade	1170
— on Sintered Nickel Films. Hydrogenation of. E. Crawford, M. W. Roberts and C. Kemball	1761
— Vinyl Chloride and. Part 7 of Photochlorination Studies. F. S. Dainton, D. A. Lomax	
and M. Weston	308 1403
Formate. Methyl Radical Photosensitized Decomposition of. Part 1 of Reactions of	1403
Alkyl Radicals. J. C. J. Thynne	676
isopropyl Acetates and. E. W. Godbole and P. Kebarle	1897
Europium Complexes. Some. Solvent Extraction Studies of Ion Association. P. G.	020
Manning and C. B. Monk	938
and C. Kemball	2452
— of Hydrogen Sulphide and of Hydrogen with Deuterium on Disulphides of Molybdenum and Tungsten. Catalytic. R. L. Wilson, C. Kemball and A. K. Galwey	583
— Reaction CD ₃ +CD ₄ =CD ₄ +CD ₃ using ¹⁴ C as Tracer. Kinetics of the. G. A.	
Creak, F. S. Dainton and K. J. Ivin Reactions. Kinetics of Isotopic. Part 7. N. S. Biradar, D. R. Stranks and M. S.	326
Vaidva	2421
— Resin. Uptake of Electrolytes by a Cation. M. G. T. Shone. Explosions. On the Inhibition of the Hydrogen+Oxygen Reaction by Hydrocarbons. Thermal	805
and Isothermal. R. R. Baldwin, D. Booth and R. W. Walker	60
the Effect of Withdrawal Rate on the Second Limit of the Hydrogen+Oxygen Reaction.	2410
Self-Inhibition of. R. R. Baldwin, P. Doran and L. Mayor	2410 561
Extraction from Halide Solutions. Solvent. Parts 2 and 3. A. T. Casey, A. G. Maddock,	
W. Smulek and A. J. Tench	8, 923
and C. B. Monk	938
Ferric Ions. Nature of Intermediates in the Catalytic Decomposition of Hydrogen Peroxide by, Mordechai L. Kremer	702
— Chloride and Styrene. Kinetics of Decomposition of azo-bis-isobutyronitrile in Di-	
methylformamide in the Presence of. J. Betts F. S. Dainton and K. J. Ivin.	1203

we are written and the state of	PAGE
Ferric. Initiation of Vinyl Polymerization and the Interaction of Radicals with. C. H. Bamford, A. D. Jenkins and R. Johnston	1212
Ferrocene. Thermodynamic Properties of. Parts 2 and 3. J. W. Edwards and G. L. Kington	1334
Ferro-Ferricyanide, Formate, Ethanol and Amino Acids in Irradiated Solutions. Reactivity of OH Radicals with. J. Rabani and G. Stein	2150
Fibres. Thermoelasticity of Keratin. M. M. Breuer	2066
Film. Reaction of Ethane with a Clean Rhodium. R. W. Roberts	1159
Bennett and F. C. Tompkins.	816
— Catalytic Exchange of Alkylbenzenes with Deuterium on Nickel. E. Crawford and C. Kemball	2452
— Diffusion of Dyes into Polymer. Part 1. R. McGregor, R. H. Peters and J. H. Petropolous	771
— Diffusion of Dyes into Polymer. Parts 2 and 3. R. McGregor, R. H. Peters and	
J. H. Petropolous	1054
Part 4 of Radiochemical Studies of Chemisorption and Catalysis. S. J. Thomson and J. L. Wishlade	1170
Hydrogenation of Ethylene on Sintered Nickel. E. Crawford, M. W. Roberts and	
C. Kemball — Interaction of Methyl Mercaptan with Nickel and Tungsten. J. M. Saleh, M. W.	1761
Roberts and C. Kemball	1642
mann and H. R. Thirsk	2200
— Permeation of Dyes through Polymer. Part 1. R. McGregor and I. Y. Mahajan . Fluorine at Carbon Electrodes. Kinetics of the Electrochemical Formation of. A. J. Arvia	2484
and J. Bebczuk de Cusminsky	1019
— Compounds. Solubility of Carbon Dioxide in Hydrofluoric Acid Solutions: "Standard State" Correction for the Combustion Calorimetry of Organo. J. D. Cox	
and A. J. Head	1839
and D. P. Onwood	1557
—— Inhibition of the Hydrogen+Oxygen Reaction by. R. R. Baldwin and D. W. Cowe. Formamidine Disulphide. Salts of Urea, Thiourea and. Part 4 of Proton Magnetic Resonance	1768
Studies of Amides. C. R. Redpath and J. A. S. Smith	462
Ferro-Ferricyanide. J. Rabani and G. Stein	2150
— in Aqueous Solution. Reactivity of Hydrogen Atoms with Ethonal and. G. Czapski, J. Rabani and G. Stein.	1260
Formates. Methyl Radicals Photosensitized Decomposition of n-Propyl and isoPropyl.	1394
Part 2 of Reactions of Alkyl Radicals. J. C. J. Thynne	
Compounds of Water. R. M. Barrer and D. J. Ruzicka	2239
and R. C. Pink	1632
— of Clathrate Phases. Kinetics of. Part 4 of Non-Stoichiometric Clathrate Compounds of Water. R. M. Barrer and D. J. Ruzicka	2262
— of Micelles with Mixed Counterions. J. M. Corkill and J. F. Goodman — of P ₄ O ₁₀ and H ₃ PO ₄ . Heat of Combustion of Phosphorus and the Enthalpies of.	206
W. S. Holmes	1916
— Relative Reactivities of Olefines in Polysulphone. J. E. Hazell and K. J. Ivin Solochrome Violet R. Complex. Part 4. E. Coates and B. Rigg	176 2058
Formic Acid, Acetic Acid and other Dissociating Vapours. Temperature Coefficient of	2000
Latent Heat and the Curvature of the Vapour Pressure Line of. J. W. Armitage and P. Gray	1746
— Secondary Hydrogen Isotope Effect in the Dissociation Constant of. R. P. Bell and J. E. Crooks	1409
Force Constant Calculations. Part 4. D. A. Long, J. Y. H. Chau and R. B. Gravenor.	2316
Force Constants. Calculation of Normal Co-ordinate Transformations and. Part 2 of Root Mean Square Amplitudes of Vibration in some Group 4 Tetrahalides.	
D. A. Long and J. Y. H. Chau	2328
— in the Mercuri-iodide Ion HgI ₄ ² . Vibrational Frequencies and. D. A. Long and J. Y. H. Chau	2325
Forces in Protein Dimensional Change. Analysis of the. P. T. Speakman and B. D. Stone Fractionation. Preparation and. Part 1 of Styrene+Methyl Methacrylate Block Co-	622
polymers. G. M. Burnett, P. Meares and C. Paton	723
Free Radical Copolymerization. Diffusion-Controlled Termination in. J. N. Atherton	2040

Free Mechanisms in the Thermal Decomposition of Nitrogen Dioxide. Concurrent	PAG
Molecular and. P. G. Ashmore and M. G. Burnett	253
Frequencies and Force Constants in the Mercuri-iodide Ion HgI ₂ ² . Vibrational. D. A.	
Long and J. Y. H. Chau Gas Chromatographic Columns: Mechanisms Residing in the Mobile Phase. Solute Band	2325
Broadening in Packed. P. C. Van Berge, P. C. Haarhoff and V. Pretorius. —— Phase Heats of Formation of Diphenyl Sulphide, Dibenzyl Sulphide, Diphenyl Di-	2272
sulphide, 4-thia-1-hexene and 4-thia-5,5-dimethyl-1-hexene. Part 3 of Studies	
in the Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick. — Heats of Formation of Phenyl Methyl, Phenyl Ethyl, Benzyl Methyl and Benzyl Ethyl Sulphides. Part 1 of Studies in the Thermochemistry of Organic Sulphides.	238
H. Mackle and R. G. Mayrick Heats of Formation of Ten Aliphatic Sulphides. Part 2 of Studies in the Thermo-	33
chemistry of Organic Sulphides. H. Mackle and R. G. Mayrick	230
— Photolysis of 1,3-Dichlorotetrafluoroacetone. Part 1 of Photodecomposition of Halogenated Ketones. R. Bowles, J. R. Majer and J. C. Robb	
Reactions between Chloromethanes and Nitrogen Dioxide. D. V. E. George and	1541
J. H. Thomas Molecules and of Heats of Vaporization of Solids. Correlation of Dissociation Energies	262
of. Part 1. G. Verhaegen, F. E. Stafford, P. Goldfinger and M. Ackerman Oxidation Reactions in the Presence of Carbon. A. Fish, N. Boden and C. F. Cullis	1926 1968
—— Collisional Interference between Molecules Transporting Momentum or Energy in. P. G. Wright and P. Gray	1
— with Evaporated Germanium Films between 78 and 373°K. Interaction of. M. J.	
Bennett and F. C. Tompkins. Germanium Films between 78 and 373°K. Interaction of Gases with Evaporated. M. J.	816
Bennett and F. C. Tompkins	816
Glass-Transition Temperature of Methyl Methacrylate+Styrene Copolymers. Part 4 of Physical Properties of Vinyl Polymers. R. B. Beevers	1465
Glycine and its Di-, Tri- and Tetra-Peptides by Montmorillonite. Adsorption of. D. J. Greenland, R. H. Laby and J. P. Quirk	829
Gold+Tin+Cadmium. Lattice Spacing Relationships in the Ternary System. B. Henderson and G. U. Raynor	
Graphite Surfaces with Oxygen. Etching of. E. E. Glenda Hughes, B. R. Williams and	900
J. M. Thomas	2011
solution of. A. R. Cooper, Jr	2468
Halide Ions in Solution. Intensities of the Adsorption Bands of. J. Jortner and A. Treinin ——Solutions. Solvent Extraction from. Parts 2 and 3. A. T. Cassey, A. G. Maddock, W. Smulek and A. J. Tench	1503 8, 923
Halides. Adsorption of Water Vapour on Insoluble Metal. P. G. Hall and F. C. Tompkins — Electron Spin Resonance Spectra of Alkyl Radicals in γ-Irradiated Alkyl. P. B.	1734
Ayscough and C. Thomson	1477
C. Hayman, D. L. Levi and G. L. Wilson Halogen Dipoles. Carbon. Part 2 of Infra-red Solvent Shifts and Molecular Interactions.	890
H. E. Hallam and T. C. Ray.	1299
— Molecules. Bond Energies of. G. L. Caldow and C. A. Coulson	633
Patrick	17
 Ketones. Photodecomposition of. Part 2. R. Bowles, J. R. Majer and J. C. Robb. Ketones. Photodecomposition of. Part 1. R. Bowles, J. R. Majer and J. C. Robb. 	2394 1541
Halophilic Organisms. Part 3 of Polarization Studies of Mild Steel in Cultures of Sulphate-reducing Bacteria. G. H. Booth and A. K. Tiller	2510
Heat Capacity, Enthalpy and Entropy of Citric Acid Monohydrate. D. M. Evans, F. E.	
Hoare and T. P. Melia	1511
and G. L. Kington	1313
Compounds. J. R. Lacher, H. B. Gottlieb and J. D. Park	2348
— Combustion of n-Butanol. Part 6 of Thermodynamic Properties of Organic Oxygen Compounds. H. A. Gundry, A. J. Head and G. B. Lewis	1309
— of Phosphorus and the Enthalpies of Formation of P ₄ O ₁₀ and H ₃ PO ₄ . W. S. Holmes	1916
— and Entropies of Mixing. Part 2 of Thermodynamic Properties of Solutions of Alcohols and Carbon Tetrachloride. JE. Otterstedt and R. W. Missen	879
— and Entropy of BOF. M. Farber and J. Blauer	2020
— of the Mercaptyl Radical. Part 4 of Studies in the Thermochemistry of Organic Sulphides. H. Mackle and R. T. B. McLean	895
and Bond Angles of Molecules and Radicals Part 2 I R Pedley	23

SUBJECT INDEX—VOLUME 58, 1962 253	37
	GE
Heat of Diphenyl Sulphide, Dibenzyl Sulphide, Diphenyl Disulphide, 4-thia-1-hexene and 4-thia-5,-dimethyl-1-hexene. Gas-Phase. Part 3 of Studies in the Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick	38
D. L. Levi and G. L. Wilson	90
— of Phenyl Methyl, Phenyl Ethyl, Benzyl Methyl and Benzyl Ethyl Sulphides. Part 1 of Studies in the Thermochemistry of Organic Sulphides. H. Mackle and R. G.	
	33
Organic Sulphides. H. Mackle and R. G. Mayrick	30
— Mixing of some Polymer-Solvent Systems. Application of the Prigogine Solution Theory to the. G. Delmas, D. Patterson and D. Bohme	16
Heat of Sublimation at 25°C by the Effusion and Thermistor Manometer Methods. Vapour Pressure and Latent. Part 2 of Thermodynamic Properties of Ferrocene. J. W. Edwards and G. D. Kington	23
— of Lead Tetraphenyl and Tin Tetraphenyl. Latent. Part 2 of Measurement of Very Low Vapour Pressures using Radioactive Isotopes. A. S. Carson, R. Cooper and D. R. Stranks	
— Transport of some Salts of Alkaline Earth Metals in Water at 25°C. Soret Coefficients	
— Vaporization of Solids. Correlation of Dissociation Energies of Gaseous Molecules	55
and of. Part 1. G. Verhaegen, F. E. Stafford, P. Goldfinger and M. Ackerman Helium+Oxygen and Helium+Nitrogen Mixtures. Rotational Relaxation in. R. Holmes, G. R. Jones, N. Pusat and W. Tempest	
Heptane+Cetane Mixtures. Part 5 of Self-Diffusion in Mixtures. L. Miller and P. C.	
Carman	
and L. A. Woodward	77
the Thermochemistry of Organic Sulphides. H. Mackle and R. G. Mayrick . 23	38
H+O ₂ +M. Efficiency of Water as a Third Body in the Reaction. R. R. Baldwin and C. T. Brooks	82
H ₃ PO ₄ . Heat of Combustion of Phosphorus and the Enthalpies of Formation of P ₄ O ₁₀ and. W. S. Holmes W. W. S. Holmes W. W	16
Compounds of Water. R. M. Barrer and D. J. Ruzicka	39
— of Formaldehyde, Acetaldehyde and Chloral. Acid Strengths of the. R. P. Bell and D. P. Onwood	57
Hydration. Ionic. A. J. Rutgers and Y. Hendrikx	
Hydrocarbon Radical-Ions on a Silica-Alumina Surface. Formation and Stability of. J. J.	
Rooney and R. C. Pink	32
	23
by Some Anils, Imines. Part 5 of Studies of Organo-Alkali Metal Complexes.	
A. Mathias and E. Warhurst	
— Electronic Processes in Paraffinic. Part 1. W. L. McCubbin	
	60
Hydrochloric Acid Solutions containing Suppressed Succinic or p-Hydroxy-Benzoic Acid at 25°C. Standard Potentials in Aqueous. H. Sadek and Th. F. Tadros 219	92
Hydrofluoric Acid Solutions: "Standard State" Correction for the Combustion Calorimetry of Organofluorine Compounds. Solubility of Carbon Dioxide in. J. D. Cox	
and A. J. Head) Y
C. Kemball	51
J. L. Wishlade	70
Hydrogen Atoms with Ethanol and Formate in Aqueous Solution. Reactivity of. G. Csapski, J. Rabani and G. Stein	60
Atoms with Nitrogen Dioxide. Reaction of. P. G. Ashmore and B. J. Tyler 110	08 48
— Bonding in Thiolbenzoic Acid, Infra-red, Ultra-violet, N.M.R. and Cryoscopic	55

	PAGE
Hydrogen Bonds and the Elastic Properties of a Solid Adsorbent. Surface. Y. Kozirouski and M. Folman	2228
— Chemisorption. Adsorption of Carbon Dioxide on Nickel and the Influence of Adsorbed Species on Subsequent. C. M. Quinn and M. W. Roberts	569
in Aqueous Solution. Surface Structure and Electrochemical Potential of Palladium while Absorbing. P. C. Aben and W. G. Burgers	1989
- Isotope Effect in the Dissociation Constant of Formic Acid. Secondary. R. P. Bell	
and J. E. Crooks	1409
—— +Oxygen Reaction by Hydrocarbons. Thermal and Isothermal Explosions on the	1768
Inhibition of the. R. R. Baldwin D. Booth and R. W. Walker +Oxygen Reaction. Self-Inhibition of Explosions: the Effect of Withdrawal Rate on	60
the Second Limit of the. R. R. Baldwin, P. Doran and L. Mayor with Deuterium on Disulphides of Molybdenum and Tungsten Catalytic Exchange	2410
of Hydrogen Sulphide and of. R. L. Wilson, C. Kemball and A. K. Galwey. — Chloride Gas with Sodium Bromide: A Study in Surface Thermodynamics. Reaction	583
of. L. G. Harrison and R. A. Siddiqui. to Acetylene. Heat of Addition of. Part 2 of Reaction Heats of Organic Compounds.	982
J. R. Lacher, H. B. Gottlieb and J. D. Park — Peroxide by Ferric Ions. Nature of Intermediates in the Catalytic Decomposition of	2348
Mordechai L. Kremer Sulphide and of Hydrogen with Deuterium on Disulphides of Molybdenum and Tungsten.	702
Catalytic Exchange of. R. L. Wilson, C. Kemball and A. K. Galwey	853
Hydrolysis of γ -Butyrolactone. Part 9 of Pressure Effect and Mechanism in Acid Catalysis. A. R. Osborn and E. Whalley	2144
Hydroperoxides. Decomposition of Organic. Part 5. H. Berger	1137
and. F. Heinmets Ice and the Formation of Defects. Electrostatic Energies in. N. V. Cohan, M. Cotti, J. V.	788
Iribarne and M. Weissmann	490
ment of. F. Heinmets	788
L. F. Evans Imines, Hydrocarbons and Nitrocompounds. Reactivities and Visible Spectra of Com-	1649
plexes Formed by some Anils. Part 5 of Studies of Organo-alkali Metal Complexes. A. Mathias and E. Warhurst	942
Impedance and the Apparent Electrical Resistance of Palladium Hydrides in Aqueous	103
Solutions. Interface. J. C. Barton and F. A. Lewis Inclusion Energies and Constants in the Small Cavities of Structure II. Part 3 of Non-	
Stoichiometric Clathrate Compounds of Water. R. M. Barrer and D. J. Ruzicka Indicator Equilibrium. Salt Effects on a Buffer. A. Indelli and G. Saglietto	2253 1033
Infra-red Solvent Shifts and Molecular Interactions. Part 1. E. A. Cutmore and H. E. Hallam	40
 Solvent Shifts and Molecular Interactions. Part 2. H. E. Hallam and T. C. Ray Spectra of Thiophenol and Thioglycollic Acid. B. D. Saksena and P. H. Trevedi 	1299 2082
 Spectral Lines. Pressure-Induced Shifts and Broadenings of. A. D. Buckingham Spectrometric Study of the Pyrolysis of Acetylene. Part 1. C. F. Cullis, G. J. Minkoff 	449
and M. A. Nettleton	1117
Acid. A. S. N. Murthy, C. N. R. Rao, A. D. N. Rao and P. Venkateswarlu. Inhibition of the Hydrogen+Oxygen Reaction by Formaldehyde. R. R. Baldwin and D. W.	855
Cowe. — of the Hydrogen+Oxygen Reaction by Hydrocarbons. Thermal and Isothermal	1768
Explosions on the. R. R. Baldwin, D. Booth and R. W. Walker	60
Inhibitor Action for Chain Processes. Mechanism of. T. Ree, K. Yang and H. Eyring Initiation of Vinyl Polymerization and the Interaction of Radicals with Ferric Chloride.	2375
C. H. Bamford, A. D. Jenkins and R. Johnston Initiator for Radical Polymerizations. Further Tracer Studies of Azoisobutyronitrile as	1212
an. J. C. Bevington and H. C. Troth	186
Solvent in Styrene Polymerization. A. C. Toohey and K. E. Weale	2439
man and T. C. Waddington	1679 1503
Interaction of Electron Acceptors with Bases. Part 4. R. Foster and T. J. Thomson. — of Gases with Evaporated Germanium Films between 78 and 373°K. M. J. Bennett	860
and F. C. Tompkins	816

SUBJECT INDEX—VOLUME 58, 1962	2539
Interaction of Methyl Mercaptan with Nickel and Tungsten Films. J. M. Saleh, M. W.	PAGE
Roberts and C. Kemball of Radicals with Ferric Chloride. Initiation of Vinyl Polymerization and the. C. H.	1642
Bamford, A. D. Jenkins and R. Johnston Interactions. Infra-red Solvent Shifts and Molecular. Part 1. E. A. Cutmore and H. E. Hallam	1212
Infra-red Solvent Shifts and Molecular. Part 2. H. E. Hallam and T. C. Ray. of Electrolytes by the Evaluation of Electrophoretic Boundary Patterns Obtained with Alternating Electric Fields. Method for Studying Chemical. M. M.	40 1299
Breuer Interface. Adsorption of Sodium Octyl and Decyl Sulphates and Octyl and Decyl Trimethylammonium Bromides at the Decane-Water. D. H. Haydon and F. H.	1008
Taylor — and the Structure of the Electrical Double Layer. Specific Absorption of Tetra- Alkyl-Ammonium Iodides at the Mercury-Water. M. A. V. Devanathan and	1233
M. J. Fernando —— Impedance and the Apparent Electrical Resistance of Palladium Hydrides in Aqueous Solutions. J. C. Barton and F. A. Lewis	368
Interference between Molecules Transporting Momentum or Energy in Gases. Collisional. P. G. Wright and P. Gray	103
Intermediates in the Catalytic Decomposition of Hydrogen Peroxide by Ferric Ions. Nature of. Mordechai L. Kremer	702
Intermolecular Charge-Transfer Complexes. Effect of Solvent on π — π . Part 4 of Interaction of Electron Acceptors with Bases. R. Foster and T. H. Thomson	860
Charge-transfer Spectra of Organic Acceptor Molecules. Reduction Potentials and. Part 1. M. E. Peover	1656
— Charge-transfer Spectra of Organic Acceptor Molecules. Reduction Potentials and. Part 2. M. E. Peover	2370
Interphase Potentials in Protonated and Hydroxylated Electrolytes. Measurement of Ice-Liquid. F. Heinmets	788
Ion Association in Solutions of Nickel Malonate and n-Butyl Malonate. J. R. Brannan and G. H. Nancollas	354
—— Solvent Extraction Studies of. Some Europium Complexes. P. G. Manning and C. B. Monk	938
	156
Ionic Hydration. A. J. Rutgers and Y. Hendrikx	2184 499
— Molecules. Nuclear Quadrupole Coupling in. A. D. Buckingham Ionization and Dissociation of Deuterated Ethyl and isopropyl Acetates and Ethyl Formate	1277
under Electron Impact. E. W. Godbole and P. Kebarle	1897 480
Use of. M. G. Adamson, D. L. Baulch and F. S. Dainton	1388
J. Deren, J. Haber and J. Slociynski — Hydroxide. A Volatile. G. R. Belton and F. D. Richardson	166 1562
Irradiated Alkyl Halides. Electron Spin Resonance Spectra of Alkyl Radicals in. P. B. Ayscough and C. Thomson	1477
 Potassium Methoxy-Acetate. Electron Spin Resonance of the Radical CH₃OCHCO₂ in γ A. Horsfield and J. R. Morton 	470
— Solutions. Reactivity of OH Radicals with Ferro-Ferricyanide, Formate, Ethanol and Amino Acids in. J. Rabani and G. Stein	2150
Irradiation of Benzene. Proton. Part 1 of Decomposition of Aromatic Substances by Different Kinds of Radiation. W. G. Burns	961
Isomerism. Diamagnetic Study of Positional. S. Sriraman and R. Sabesan Isomerization of Bicyclo[3,1,0] hexane. Thermal Unimolecular. H. M. Frey and R. C.	1080
Smith —— of cis- and trans-1,2-Dichloroethylene. Concurrent Geometrical. Part 5 of Photo-	697
chlorination Studies. P. B. Ayscough, A. J. Cocker and F. S. Dainton Addition of Methylene to Butadiene and the Uni-	284
molecular. H. M. Frey — of 1-Methylcyclobutene. Thermal Unimolecular. H. M. Frey isoPropyl Acetates and Ethyl Formate under Electron Impact. Ionization and Dissociation	516 957
of Deuterated Ethyl and. E. W. Godbole and P. Kebarle	1897
Bell and J. E. Crooks	1409
Carson, R. Cooper and D. R. Stranks	2125

	PAGE
Isotopic Exchange Reactions. Kinetics of. Part 7. N. S. Biradar, D. R. Stranks and	0.404
M. S. Vaidya —— Investigation of the Reaction of Oxygen Atoms with Nitrogen Dioxide. M. A. A.	2421
Clyne and B. A. Thrush	511
Ketones. Photodecomposition of Halogenated. Part 1. R. Bowles, J. R. Majer and J. C. Robb.	1541
— Photodecomposition of Halogenated. Part 2. R. Bowles, J. R. Majer and J. C. Robb Keratin Fibres. Thermoelasticity of. M. M. Breuer	2394 2066
Kinetic Studies. Part 2 of Photobromination of Methanol. E. Buckley and E. Whittle	529
—— Theory of Ideal Ionic Melts. S. A. Rice.	499
— Theory of Pseudo-Capacitance and Electrode Reactions at Appreciable Surface Coverage.	
B. E. Conway and E. Gileadi	2493
Kinetics. Effect of the Moving Boundary on Molecular Diffusion Controlled Dissolution	2460
of Growth. A. R. Cooper, Jr. —— in the Presence of Added Carbon Dioxide. Part 3 of Photobromination of Methanol.	2469
E. Buckley and E. Whittle	536
Ethylene Equilibria and. J. Jagur, M. Levy, M. Feld and M. Szwarc	2168
of Anodic Nitrogen Formation from Azide Ions. J. G. N. Thomas	1412
of Decomposition of azo-bis-isobutyronitrile in Dimethylformamide in the Presence	
of Ferric Chloride and Styrene. J. Betts, F. S. Dainton and K. J. Ivin	1203
— of Electrodeposition of γ -Manganese Dioxide. M. Fleischmann, H. R. Thirsk and	
I. M. Tordesillas	1865
of Formation of Clathrate Phases. Part 4 of Non-Stoichiometric Clathrate Compounds	2262
of Water. R. M. Barrer and D. J. Ruzicka	2202
Vaidya	2421
— of Oxidation of Lithium. E. F. McFarlane and F. C. Tompkins	1177
— of the Conversion of Bicarbonate to Carbon Dioxide. P. V. Danckwerts and K. A.	
Melkersson	1832
— of the Electrochemical Formation of Fluorine at Carbon Electrodes. A. J. Arvia	
and J. Bebczuk de Cusminsky	1019
of the Electrocrystallization of Thin Films of Calomel. A. Bewick, M. Fleischmann and	2200
H. R. Thirsk —— of the Exchange Reaction CD ₃ +CD ₄ -CD ₄ +CD ₃ using ¹⁴ C as Tracer. G. A. Creak,	2200
F. S. Dainton and K. J. Ivin	326
Latent Heat and the Curvature of the Vapour Pressure Line of Formic Acid, Acetic Acid	
and other Dissociating Vapours. Temperature Coefficient of. J. W. Armitage	
and P. Gray	1746
Lattice Spacing Relationships in the Ternary System Gold+Tin+Cadmium. B. Henderson	000
and G. U. Raynor	900
in Silver-rich Solutions in the Silver+Tin+Manganese System. B. Henderson and G. V. Raynor	1573
Lead Tetraphenyl and Tin Tetraphenyl. Latent Heats of Sublimation of. Part 2 of Measure-	1313
ment of Very Low Vapour Pressures using Radioactive Isotopes. A. S. Carson,	
R. Cooper and D. R. Stranks	2125
Lifetime of the Triplet State of Anthracene in Lucite. W. H. Melhuish and R. Hardwick.	1908
Liquid Diffusivities from Measurements in Diaphragm Cells. Equations for Calculations	~
of. F. A. L. Dullien and L. W. Shemilt	244
K. C. Reddy, S. V. Subrahmanyam and J. Bhimasenachar	2352
Mixtures. Scattering of Light by Binary. Determination of some Binary Rayleigh	2332
Ratios. Y. Sicotte and M. Rinfret	1090
—— Systems Argon+Oxygen, Argon+Nitrogen, Nitrogen+Oxygen, Nitrogen+Carbon	
Monoxide, and Argon+Carbon Monoxide. Some Excess Thermodynamic	
Functions for the. R. A. H. Pool, G. Saville, T. M. Herrington, B. D. C. Shields	1602
and L. A. K. Staveley	1692
I. Burn and F. Din	1341
	2108
Lithium. Kinetics of Oxidation of. E. F. McFarlane and F. C. Tompkins	1177
— Nitration of. E. F. McFarlane and F. C. Tompkins	997
Lucite. Lifetime of the Triplet State of Anthracene in. W. H. Melhuish and R. Hardwick.	1908
Macromolecules. Sedimentation of Charged. R. G. Wallis and B. R. Record.	1251
Magnesium Hydroxide. Thermal Decomposition of. P. J. Anderson and R. F. Horlock. Magnetic Determination of the Partial Vapour Pressure of Diatomic Sulphur in the Saturated	1993
Vapour. J. A. Poulis, C. H. Massen and P. V. D. Leeden	52
— Susceptibility of Liquid Sulphur. J. A. Poulis, C. H. Massen and P. V. D. Leeden	474
—— Susceptibility of Acetic Acid+Pyridine Mixtures. V. T. Deshpande and K. G. Pathki	2134

SUBJECT INDEX—VOLUME 58, 1962	2541
Magnetite. Electron Diffraction Study on the Magnetic Crystal Structure of. S. Yamaguchi Manganese Dioxide Electrode. Standard Potential of the. A. K. Covington, T. Cressey,	1690
B. G. Lever and H. R. Thirsk	1975
Tordesillas	18 65
Henderson and G. V. Raynor	1573
Manganous Sulphate+Ammonium Sulphate Electrodeposition Baths. Buffer Characteristics of. B. V. K. S. R. A. Tilak, S. R. Rajagopalan and A. N. Reddy	795
Mean Free Path of the Gas Molecule. Resistance of a Gaseous Medium to the Motion of a	1949
Spherical Particle of a Size Comparable to the. N. A. Fuchs and I. B. Stechkina Mechanism in Acid Catalysis. Pressure Effect and. Part 9. A. R. Osborn and E. Whalley	2144
of Catalase Action. P. Jones and W. F. K. Wynne-Jones of Crystal Structure Transformations. Part 3. S. R. Yoganarasimhan and C. N. R.	1148
Rao	1579
 of Kolbe's Electrosynthesis. Parts 1, 2 and 3. T. Dickinson and W. F. K. Wynne-Jones of Inhibitor Action for Chain Processes. T. Ree, K. Yang and H. Eyring 	8, 400 2375
Mechanisms Residing in the Mobile Phase. Solute Band Broadening in Packed Gas	
Chromatographic Columns. P. C. Van Berge, P. C. Haarhoff and V. Pretorius Melts of Phenyl Naphthalenes and Dinaphthyls. Structure and Viscosity of. E. H. Binns and K. H. Squire	2272 762
Membrane with Mixed Boundary Conditions. Permeation through a. R. M. Barrer, J. A.	
Barrie and M. G. Rogers	2473
Organic Sulphides. H. Mackle and R. T. B. McLean	895 1624
Mercuri-iodide Ion HgI2. Vibrational Frequencies and Force Constants in the. D. A.	
Long and J. Y. H. Chau Mercury-Water Interface and the Structure of the Electrical Double Layer. Specific Ab-	2325
sorption of Tetra-Alkyl-Ammonium Iodides at the. M. A. V. Devanathan and M. J. Fernando	368
Metal Carbonyl Compounds. 15C and 17O N.M.R. Spectra of. R. Bramley, B. N. Figgis and	
R. S. Nyholm	1893 942
—— Complexes. Studies of Organo-alkali and Alkaline Earth. Parts 6 and 7. A. Mathias, D. G. Powell and E. Warhurst	18, 953
	2058
E. Coates and B. Rigg. Halides. Adsorption of Water Vapour on Insoluble. P. G. Hall and F. C. Tompkins	1734
— Halides: Pentabromides of Niobium and Tantalum. Heats of Formation of. P. Gross, C. Hayman, D. L. Levi and G. L. Wilson	890
— Organic Compounds. Molar Sound Velocity in Solutions of. P. R. K. L. Padmini and B. Ramachandia Rao	650
Methacrylates. Part 6 of Studies in Chain Transfer. S. N. Khanna, S. R. Chatterjee,	
U. S. Nandi and S. R. Palit . Methanes. Polar Substituted. Part 1 of Dielectric Relaxation Studies of Rotator Phase	1827
Solids. C. Clemett and M. Davies Methanol. Photobromination of. Parts 2 and 3. E. Buckley and E. Whittle	1705 29, 536
Methylaminotrimethylsilane. Electron Diffraction Investigation of the Molecular Structure	,
of. N W. R. Roper and C. J. Wilkins	1686 957
Methylene to Butadiene and the Unimolecular Isomerization of Excited Vinylcyclopropane. Addition of. H. M. Frey	516
Methyl Mercaptan with Nickel and Tungsten Films. Interaction of. J. M. Saleh, M. W.	1642
Roberts and C. Kemball Mercuric Perchlorate and Nitrate in Solution. Raman Spectra of. P. L. Goggin	
and L. A. Woodward . — Methacrylate Block Copolymers. Styrene+. Parts 1 and 2. G. M. Burnett, P.	1495
Meares and C. Paton	23, 737
Physical Properties of Vinyl Polymers, R. B. Beevers	1463
 Methacrylate Triphenylmethane with Styrene and. J. C. Bevington and H. G. Troth. Methacrylate with Bromo-Trichlor-Methane. Photochemical Telomerization of. J. C. 	2003
Robb and E. Senogles . Radical Photosensitized Decomposition of Ethyl Formate. Part 1 of Reactions of	708
Alkyl Radicals, J. C. J. Thynne	6/6
— Photosensitized Decomposition of n-Propyl and isoPropyl Formates. Part 2 of Reactions of Alkyl Radicals. J. C. J. Thynne	1394

	PAGE
Methyl Sensitized Decomposition of n-Butyl Formate. Part 3 of Reactions of Alkyl Radicals.	
J. C. J. Thynne	1533
— Sensitized Decomposition of Gaseous Dimethyl Carbonate. J. C. J. Thynne and P. Gray	2403
with di-Ethyl Ether. Reaction of. J. Long and G. Skirrow	1403
Methylstyrene. Radiation-Induced Polymerization of. J. V. F. Best, T. H. Bates and	
T. Ffrancon Williams	192
Micelle Size of a Homogeneous Non-ionic Detergent. Effect of Temperature on the. R. R. Balmbra, J. S. Clunie, J. M. Corkill and J. F. Goodman	1661
Micelles with Mixed Counterions. Formation of. J. M. Corkill and J. F. Goodman.	206
Microdensitometric Technique. Part 1 of Diffusion of Dyes into Polymer Films. R.	~~.
McGregor, R. H. Peters and J. H. Petropolous Microwave Spectrum and Structure of Silyl Isothiocyanate. D. R. Jenkins, R. Kewley	771
and T. M. Sugden	1284
Mixing. Free Energies and Volumes of. Part 1 of Thermodynamic Properties of Solutions	
of Alcohols and Carbon Tetrachloride. G. C. Paraskevopoulos and R. W. Missen	869
— Heats and Entropies of. Part 2 of Thermodynamic Properties of Solutions of Alcohols and Carbon Tetrachloride. JE. A. Otterstedt and R. W. Missen	879
Mixtures. Self-Diffusion in. Part 5. L. Miller and P. C. Carman	1529
Molar Properties. Accurate Evaluation of Partial. F. Franks and H. H. Johnson	656
—— Sound Velocity in Solutions of Metal Organic Compounds. P. R. K. L. Padmini and	(50
B. Ramachandra Rao	650
and Application of. Parts 3, 4 and 5. C. W. Nutt and A. J. Biddlestone	
1363, 1368,	, 1376
and Free Radical Mechanisms in the Thermal Decomposition of Nitrogen Dioxide.	252
Concurrent. P. G. Ashmore and M. G. Burnett	253 2336
— Orbital Calculations for Inorganic Systems. Free-Electron. Part 1. D. Chapman	
and T. C. Waddington	1679
Molecules and Radicals. Heats of Formation and Bond Angles of. Part 2. J. B. Pedley.	23
Transporting Momentum or Energy in Gases. Collisional Interference between. P. G. Wright and P. Gray	1
Molybdenum and Tungsten. Catalytic Exchange of Hydrogen Sulphide and of Hydrogen with	-
Deuterium on Disulphides of. R. L. Wilston, C. Kemball and A. K. Galwey.	583
Momentum or Energy in Gases. Collisional Interference between Molecules Transporting. P. G. Wright and P. Gray	1
Monolayers. Surface Pressure of Ionized. G. M. Bell, S. Levine and B. A. Pethica	904
Monomer. Equilibria between Low-Molecular-Weight Poly-α-Methyl Styrenes and their.	
A. Vrancken, J. Smid and M. Szwarc	2036
Montmorillonite. Adsorption of Glycine and its Di-, Tri- and Tetra-Peptides by. D. J. Greenland, R. H. Laby and J. P. Quirk	829
Motion of a Spherical Particle of a Size Comparable to the Mean Free Path of the Gas	027
Molecules. Resistance of a Gaseous Medium to the. N. A. Fuchs and I. B.	
Stechkina . Naphthalene Scarlet 4R in Nylon 6: 6. Part 3 of Diffusion of Dyes into Polymer Films.	1949
R. McGregor, R. H. Peters and J. H. Petropolous	1054
Nickel and the Influence of Adsorbed Species on Subsequent Hydrogen Chemisorption.	
Adsorption of Carbon Dioxide on. C. M. Quinn and M. W. Roberts	569
— and Tungsten Films. Interaction of Methyl Mercaptan with. J. M. Saleh, M. W. Roberts and C. Kemball	1642
Films. Catalytic Exchange of Alkylbenzenes with Deuterium on. E. Crawford and	1042
C. Kemball	2452
Films during Hydrogenation. Direct Observation of Ethylene-C-14 on the Surface of.	
Part 4 of Radiochemical Studies of Chemisorption and Catalysis. S. J. Thomson and J. L. Wishlade	1170
Films. Hydrogenation of Ethylene on Sintered. E. Crawford, M. W. Roberts and	11.0
C. Kemball	1761
— Malonate and n-Butyl Malonate. Ion Association in Solutions of. J. R. Brannan and G. H. Nancollas	354
Oxalate Dihydrate. Thermal Decomposition of. P. W. M. Jacobs and A. R. T.	334
Kureishy	551
- Oxide. Physico-Chemical Properties of Alkali- and Iron-Doped. A. Bielanski,	1//
J. Deren, J. Haber and J. Slociynski	166
C. Hayman, D. L. Levi and G. L. Wilson	890
Nitrate in Solution. Raman Spectra of Methyl Mercuric Perchlorate and. P. L. Goggin	
and L. A. Woodward	1495
INITIATION OF LITTIUM. E. F. MICHARIANE AND F. C. TOMPKINS	997

2543

SUBJECT INDEX—VOLUME 58, 1962 PAGE Nitric Acid between Water and Organic Solvents containing Tri-n-Octyl Amine. Distribution of. J. M. P. J. Verstegen 1878 Oxide and Oxygen. Reaction of. P. G. Ashmore, M. G. Burnett and B. J. Tyler 685 Nitriles and Base. Decomposition of tert-Butyl Hydroperoxide Catalyzed by. Part 5 of Decomposition of Organic Hydroperoxides. H. Berger 1137 Nitro-Compounds. Reactivities and Visible Spectra of Complexes Formed by some Anils, Imines, Hydrocarbons and. Part 5 of Studies of Organo-alkali Metal Complexes. A. Mathias and E. Warhurst. 294 Nitrogen Dioxide. Concurrent Molecular and Free Radical Mechanisms in the Thermal Decomposition of. P. G. Ashmore and M. G. Burnett 253 - Gas-Phase Reactions between Chloromethanes and. D. V. E. George and J. H. Thomas 262 - Isotopic Investigation of the Reaction of Oxygen Atoms with. M. A. A. Clyne and B. A. Thrush 511 Reaction of Atomic Oxygen with. Part 5 of Theory and Application of Molecular-Beam Techniques for the Design of Collision-Free Sampling Systems. C. W. Nutt and A. J. Biddlestone 1376 1108 Reaction of Hydrogen Atoms with, P. G. Ashmore and B. J. Tyler. Thermal Emission from. B. P. Levitt 1789 - Formations from Azide Ions. Kinetics of Anodic. J. G. N. Thomas 1412 - Mixtures. Rotational Relaxation in Helium+Oxygen and Helium+. R. Holmes, G. R. Jones, N. Pusat and W. Tempest 2342 - Nitrogen+Oxygen, Nitrogen+Carbon Monoxide, and Argon+Carbon Monoxide. Some Excess Thermodynamic Functions for the Liquid Systems Argon+Oxygen, Argon+. R. A. H. Pool, G. Saville, T. M. Herrington, B. D. C. Shields and 1692 L. A. K. Staveley Nuclear Resonances in Dimethyl Formamide. D. Herbison-Evans and R. E. Richards 845 Nitrogenous Bases. Relative Strengths of Primary and Secondary. Part 1 of Infra-Red Solvent Shifts and Molecular Interactions. E. A. Cutmore and H. E. Hallam. 40 Nitrosyl Chlorides. Velocity Constants in the Decomposition of Nitryl and. P. G. Ashmore and M. G. Burnett 1801 Nitryl and Nitrosyl Chlorides. Velocity Constants in the Decomposition of. P. G. Ashmore and M. G. Burnett 1801 N.M.R. and Cryoscopic Studies. Hydrogen Bonding in Thiolbenzoic Acid. Infra-red, Ultra-violet. A.S. N. Murthy, C. N. R. Rao, A. D. N. Rao and P. Venkateswarlu 855 - Spectra. Effects of a Strong Electric Field on. The Absolute Sign of the Spin Coupling Constant. A. D. Buckingham and E. G. Lovering. - Spectra of Metal Carbonyl Compounds. 15C and 17O. R. Bramley, B. N. Figgis 2077 1893 and R. S. Nyholm Non-Stationary State Method. Theory and Application of the. Chain Reactions Involving Simultaneous First- and Second-Order Termination. W. I. Bengough Non-Stoichiometric Clathrate Compounds of Water. Parts 2, 3 and 4. R. M. Barrer and 716 2239, 2253, 2262 D. J. Ruzicka Nuclear Quadrupole Coupling in Ionic Molecules. A. D. Buckingham 1277 Resonances in Dimethyl Formamide. Nitrogen. D. Herbison-Evans and R. E. Richards 845 Nucleation by Silver Iodide. Effect of Surface Charge on Ice. G. R. Edwards and L. F. 1649 Evans. Nucleic Acid in the Dry State. Part 9 of Semiconductivity of Organic Substances. D. D. Eley and D. I. Spivey 411 Nylon 6: 6. Naphthalene Scarlet 4R in. Part 3 of Diffusion of Dyes into Polymer Films. R. McGregor, R. H. Peters and J. H. Petropolous 1054 OH Radicals with Ferro-Ferricyanide, Formate, Ethanol and Amino Acids in Irradiated Solutions. Reactivity of. J. Rabani and G. Stein. Olefines in Polysulphone Formation. Relative Reactivities of. J. E. Hazell and K. J. Ivin. with Sulphur Dioxide in the Region of the Ceiling Temperature. Copolymerization of 2150 176 342 Pairs of. J. E. Hazell and K. J. Ivin Organic Compounds. Reaction Heats of. Part 2. J. R. Lacher, H. B. Gottlieb and 2348 J. D. Park - Phase. Dissociation in the. Part 3 of Solvent Extraction from Halide Solutions. A. G. Maddock, W. Smulek and A. J. Tench. 923 Organomercury Compounds. Electron Impact Measurement on some. B. G. Gowenlock, R. M. Haynes and J. R. Majer 1905 Oxidation of Lithium. Kinetics of. E. F. McFarlane and F. C. Tompkins of Polyethylene. Thermal. N. T. Notley 1177 66 1968 Reactions in the Presence of Carbon. Gaseous. A. Fish, N. Boden and C. F. Cullis - Studied by Electron Resonance. Radical. C. H. Bamford and J. C. Ward 971 170 N.M.R. Spectra of Metal Carbonyl Compounds. 15C and. R. Bramley, B. N. Figgis 1893 and R. S. Nyholm 2342

	PAGE
Oxygen Argon+Nitrogen, Nitrogen+Oxygen, Nitrogen+Carbon Monoxide, and Argon+Carbon Monoxide. Some Excess Thermodynamic Functions for the Liquid	102
Systems Argon+. R. A. H. Pool, G. Saville, T. M. Herrington, B. D. C. Shields and L. A. K. Staveley	1692
— at Pressures up to 10 Atmospheres. Liquid-Vapour Equilibrium of the System Argon+. I. Burn and F. Din	1341
— Atoms from an R.F. Discharge (10 Mc/sec). Appearance Potential and Scattering Cross- section of. Part 4 of Theory and Application of Molecular-Beam Techniques for	
the Design of Collision-Free Sampling Systems. C. W. Nutt and A. J. Biddlestone	1368
— Atoms with Nitrogen Dioxide. Isotopic Investigation of the Reaction of. M. A. A. Clyne and B. A. Thrush	511
— Compounds. Thermodynamic Properties of Organic. Part 6. H. A. Gundry, A. J. Head and G. B. Lewis	1309
Etching of Graphite Surfaces with. E. E. Glenda Hughes, B. R. Williams and J. M. Thomas	2011
	1782
C. T. Brooks Reaction by Formaldehyde. Inhibition of the Hydrogen+. R. R. Baldwin and	
D. W. Cowe Reaction by Hydrocarbons. Thermal and Isothermal Explosions on the Inhibition of	1768
the Hydrogen+. R. R. Baldwin, D. Booth and R. Walker	60 685
—— Reaction Self-Inhibition of Explosions: The Effect of Withdrawal Rate on the Second Limit of the Hydrogen+. R. R. Baldwin, P. Doran and L. Mayor	2410
— through Whole Blood, Steady-State Diffusion of, R. C. LaForce and I. Fatt with Nitrogen Dioxide. Reaction of Atomic. Part 5 of Theory and Application of	1451
Molecular-Beam Techniques for the Design of Collision-Free Sampling Systems. C. W. Nutt and A. J. Biddlestone	1376
Oxymercuration of cis- and trans-2-Butene. M. M. Kreevoy, L. L. Schaleger and J. C. Ware Palladium Hydrides in Aqueous Solutions. Interface Impedance and the Apparent Electrical	2433
Resistance of. J. C. Barton and F. A. Lewis	103
Potential of. P. C. Aben and W. G. Burgers Paraffinic Hydrocarbons. Electronic Processes in. Part 1. W. L. McCubbin	1989 2307
Pentabromides of Niobium and Tantalum. Heats of Formation of Metal Halides. P. Gross, C. Hayman, D. L. Levi and G. L. Wilson	890
Peptides by Montmorillonite. Adsorption of Glycine and its Di-, Tri- and Tetra D. J. Greenland, R. H. Laby and J. P. Quirk	829
Permeation of Dyes through Polymer Films. Part 1. R. McGregor and I. Y. Mahajan	2484
through a Membrane with Mixed Boundary Conditions. R. M. Barrer, J. A. Barrie and M. G. Rogers	2473
Peroxo Complexes of Cobalt. Reactions of the Part 1. A. G. Sykes Peroxyacids in Aqueous Alkali. Decomposition of Aromatic. J. F. Goodman, P. Robson	543
and E. R. Wilson Phase Changes in Salt Vapours. Part 2. E. R. Buckle and C. N. Hooker	1846 1938
Transitions in Rubidium and Caesium Stearates. A Proton Magnetic Resonance Study of. D. J. Shaw and B. A. Dunell	132
Phenols. Thermodynamics of the Ionization of Substituted. D. T. Y. Chen and K. J. Laidler	480
Phenyl Naphthalenes and Dinaphthyls. Structure and Viscosity of Melts of. E. H. Binns and K. H. Squire.	762
Phosphorus and the Enthalpies of Formation of P ₄ O ₁₀ and H ₃ PO ₄ . Heat of Combustion of. W. S. Holmes	1916
	536
J. C. Robb and E. Senogles	708
F. S. Dainton, D. A. Lomax and M. Weston	
— of Halogenated Ketones. Part 2. R. Bowles, J. R. Majer and J. C. Robb. Photolysis of 1,3-Dichlorotetrafluoroacetone. Gas Phase. Part 1 of Photodecomposition	2394
of Halogenated Ketones. R. Bowles, J. R. Majer and J. C. Robb	1541
Ketones. R. Bowles, J. R. Majer and J. C. Robb. Photosensitized Decomposition of Ethyl Formate. Methyl Radical. Part 1 of Reactions of	2394
Alkyl Radicals. J. C. J. Thynne. — Decomposition of n-Propyl and isoPropyl Formates. Methyl Radical. Part 2 of	676
Reactions of Alkyl Radicals. J. C. J. Thynne	1394

SUBJECT INDEX—VOLUME 58, 1962	2545
	PAGE
Phthalocyanine and of Copper Phthalocyanine under High Pressure. Electrical Conductivity of. R. S. Bradley, J. D. Grace and D. C. Munro	776
P ₄ O ₁₀ and H ₃ PO ₄ . Heat of Combustion of Phosphorus and the Enthalpies of Formation of, W. S. Holmes	1916
Polar Substituted Methanes. Part 1 of Dielectric Relaxation Studies of Rotator Phase Solids. C. Clemett and M. Davies	
Polarization Studies of Mild Steel in Cultures of Sulphate-Reducing Bacteria. Part 2.	1705
A. K. Tiller and G. H. Booth Studies of Mild Steel in Cultures of Sulphate-reducing Bacteria. Part 3. G. H. Booth	110
and A. K. Tiller	2510 2217
Polyethylene. Thermal Oxidation of. N. T. Notley Polymer Films. Diffusion of Dyes into. Part 1. R. McGregor, R. H. Peters and J. H.	66
Petropolous	771
Petropolous	
—— Films. Permeation of Dyes through. Part 1. R. McGregor and I. Y. Mahajan. —— Solvent Systems. Application of the Prigogine Solution Theory to the Heats of Mixing	2484
of some. G. Delmas, D. Patterson and D. Bohme. Polymers. Charge-Transfer Complexes of Linear. W. Slough.	2116 2360
	747
with Alternating Bond Lengths. Electronic States of Long. J. A. Pople and S. H. Walmsley	441
— Physical Properties of Vinyl. Part 4. R. B. Beevers Polymerization and the Interaction of Radicals with Ferric Chloride. Initiation of Vinyl.	1465
C. H. Bamford, A. D. Jenkins and R. Johnston	1212
Chain Transfer to Solvent in Styrene. Parts 1 and 2. A. C. Toohey and K. E. Weale 2439,	2446
— of α-Methylstyrene. Radiation Induced. J. V. F. Best, T. H. Bates and T. Ffrancon Williams	192
— Further Tracer Studies of Azoisobutyronitrile as an Initiator for Radical. J. C. Bevington and H. C. Troth	186
Polystyrene Complex. Rate of Dissociation of Anthracene-Living. Nature of the Complex. R. Asami, S. Khanna, M. Leyy and M. Szwaic	1821
—— "Dormant Polymers." Complexes formed by Anthracene with "Living". S. N. Khanna, M. Levy and M. Szwarc .	747
Polysulphone Formation. Relative Reactivities of Olefines in. J. E. Hazell and K. J. Ivin . Porphyrins and Dipyrromethenes. Part 8 of Semiconductivity of Organic Substances.	786
D. D. Eley and D. I. Spivey	405
Potential and Scattering Cross-Section of Oxygen Atoms from an R.F. Discharge (10 Mc/sec).	1080
	1368
— of the β-Manganese Dioxide Electrode. Standard. A. K. Covington, T. Cressey,	1975
of Palladium while Absorbing Hydrogen in Aqueous Solution. Surface Structure and	1989
—— Phenomena. Anode. Part 1 of Mechanism of Kolbe's Electrosynthesis. T. Dickinson and W. F. K. Wynne-Jones	382
Potentials and Intermolecular Charge-transfer Spectra of Organic Acceptor Molecules.	
— and Intermolecular Charge-Transfer Spectra of Organic Acceptor Molecules. Re-	1656
— in Aqueous Hydrochloric Acid Solutions containing Suppressed Succinic or p-Hydroxy-	2370
— in Protonated and Hydroxylated Electrolytes. Measurement of Ice-liquid Interphase.	2192
F. Heinmets	788 116
— Solution. Nature of Residual Currents in a Cell containing. F. S. Allison and J. A. Gledhill	95
	470
Powders by a Corrective Mechanism. Burning of Secondary Explosive. J. W. Taylor .	561
Preparation and Fractionation. Part 1 of Styrene+Methyl Methacrylate Block Copolymers. G. M. Burnett, P. Meares and C. Paton	723
— Electrical Conductivity of Phthalocyanine and of Copper Phthalocyanine under High.	2144
R. S. Bradley, J. D. Grace and D. C. Munro	<i>7</i> 76

	PAGE
Pressure-Induced Shifts and Broadenings of Infra-red Spectral Lines. A. D. Buckingham .	449
of Ionized Monolayers. Surface. G. M. Bell, S. Levine and B. A. Pethica	904
— on the Solvent Transfer Reaction. Effect of. Part 2 of Chain Transfer to Solvent in	
Styrene Polymerization. A. C. Toohey and K. E. Weale	2446
Prigogine Solution Theory to the Heats of Mixing of some Polymer-Solvent Systems. Applica-	
	2116
Probability in Molecular Encounters. Transition. Part 5. T. L. Cottrell and A. J.	2110
	2226
Matheson .	2336
Propyl and isoPropyl Formates. Methyl Radical Photosensitized Decomposition of n	4404
	1394
Propylene and Carbon Dioxide+Cyclopropane Systems at Low Temperatures. Equilibrium	
	1515
— Glycol. Asymmetric Dispersion in. U. Muralidhara Rao	2139
Protein Dimensional Change. Analysis of the Forces in. P. T. Speakman and B. D. Stone	622
Protonated and Hydroxylated Electrolytes. Measurement of Ice-Liquid Interphase Potentials	
in. F. Heinmets .	788
Proton Irradiation of Benzene. Part 1 of Decomposition of Aromatic Substances by Different	700
	0.01
Kinds of Radiation. W. G. Burns	961
Magnetic Resonance. Alkyl Group Exchange in Aluminium Trialkyls Detected by.	
E. G. Hoffmann	642
—— Study of Phase Transitions in Rubidium and Caesium Stearates. A. D. J. Shaw and	
B. A. Dunell	132
— Studies of Amides. Part 4. C. R. Redpath and J. A. S. Smith	462
Pyridine Mixtures. Dielectric Behaviour of Certain Alcohol. V. Sarojini	1729
— Mixtures. Magnetic Susceptibility of Acetic Acid+. V. T. Deshpande and K. G. Pathki	2134
Pyrolysis of Acetaldoxime. G. L. Pratt and J. H. Purnell	692
Pyfolysis of Acetanovanic. G. E. Flatt and J. H. Hinth	094
of Acetylene. Infra-red Spectrometric Study of the. Part 1. C. F. Cullis, G. J.	1117
Minkoff and M. A. Nettleton	1117
Quadrupole Coupling in Ionic Molecules. Nuclear. A. D. Buckingham	1277
Quantum Yield of the Reaction Fe ³⁺ (ag.) → Fe ²⁺ +H ⁺ + OH. Use of Iron-59 to Measure	
the Primary. M. G. Adamson, D. L. Baulch and F. S. Dainton	1388
Ouinones. Part 1 of Reduction Potentials and Intermolecular Charge-transfer Spectra of	
Organic Acceptor Molecules. M. E. Peover	1656
Radiation. Decomposition of Aromatic Substances by Different Kinds of. Part 1. W. G.	1000
	961
Burns	901
Induced Polymerization of α-Methylstyrene. J. V. F. Best, T. H. Bates and T. Ffrancon	400
Williams	192
Radical and the Sulphur Atom. Electron Affinities of the Sulphydryl. Part 4 of Determination	
of Electron Affinities. D. A. Ansdell and F. M. Page	1084
negative Ions. G. Spach, H. Monteiro, M. Levy and M. Szwarc	1809
— Oxidation Studied by Electron Resonance. C. H. Bamford and J. C. Ward	971
Polymerizations. Further Tracer Studies of Azoisobutyronitrile as an Initiator for.	
J. C. Bevington and H. C. Troth	186
— Heats of Formation and Bond Angles of Molecules and. Part 2. J. B. Pedley.	23
	23
— with Ferric Chloride. Initiation of Vinyl Polymerization and the Interaction of. C. H.	4040
Bamford, A. D. Jenkins and R. Johnston	1212
Radioactive Isotopes. Measurement of Very Low Vapour Pressures using. Part 2. A. S.	
Carson, R. Cooper and D. R. Stranks	2125
Radiochemical Studies of Chemisorption and Catalysis. Part 4. S. J. Thomson and J. L.	
Wishlade	1170
Raman Spectra of Methyl Mercuric Perchlorate and Nitrate in Solution. P. L. Goggin	
and L. A. Woodward	1495
Spectrum of the Hexachloroplumbate Ion PbCl ₆ ² in Solution. J. A. Creighton and	1473
Spectrum of the recognitional control of the solution. J. A. Creighton and	1077
L. A. Woodward.	1077
Rayleigh Ratios. Scattering of Light by Binary Liquid Mixtures. Determination of some	4000
Binary. Y. Sicotte and M. Rinfret	1090
Reaction Heats of Organic Compounds. Part 2. J. R. Lacher, H. B. Gottlieb and J. D. Park	2 348
Reactions between Chloromethanes and Nitrogen Dioxide. Gas-Phase. D. V. E. George	
and J. H. Thomas	262
— of the Tetrachloroethyl Radical. Stability and. G. Huybrechts, L. Meyers and	
G. Verbeke	1128
Reactivities and Visible Spectra of Complexes Formed by some Anils, Imines, Hydrocarbons	1140
and Nitrocompounds. Part 5 of Studies of Organo-Alkali Metal Complexes.	
	0.42
A. Mathias and E. Warhurst.	942
— of Olefines in Polysulphone Formation. Relative. J. E. Hazell and K. J. Ivin	176
Reactivity and Spectra of some Organo-Alkaline Earth Metal Complexes. Part 6 of Studies	
of Organo-Alkali and Alkaline Earth Metal Complexes. A. Mathias and	
F. Warhurst	948

SUBJECT INDEX—VOLUME 58, 1962	2547
Reactivity of Hydrogen Atoms with Ethanol and Formate in Aqueous Solution. G. Czapski,	PAGE
J. Rabani and G. Stein. — of OH. Radicals with Ferro-Ferricyanide, Formate, Ethanol and Amino Acids in Irradiated Solutions. J. Rabani and G. Stein.	1260 2150
of Uranium Trioxide. Chemical. Part 1. R. M. Dell and V. J. Wheeler. Reduction of a $\mu(NH_2, O_2)$ Double-Bridged Complex by Ferrous in Aqueous Solution. Part 1	1590
of Reactions of the μ -Peroxo Complexes of Cobalt. A. G. Sykes Potentials and Intermolecular Charge-transfer Spectra of Organic Acceptor Molecules. Part 1. M. E. Peover	543 1656
— Potentials and Intermolecular Charge-transfer Spectra of Organic Acceptor Molecules. Part 2. M. E. Peover	2370
Reflectance Spectra of Mercuric Iodide on Different Adsorbents. Diffuse. G. Kortüm . Relaxation in Helium+Oxygen and Helium+Nitrogen Mixtures. Rotational. R. Holmes,	1624
G. R. Jones, N. Pusat and W. Tempest. Resistance of a Gaseous Medium to the Motion of a Spherical Particle of a Size Comparable to the Man Feed Part of the Cas Molaculas N. A. Frebe and I. P. Steekleine	2342
to the Mean Free Path of the Gas Molecules. N. A. Fuchs and I. B. Stechkina. — of Palladium Hydrides in Aqueous Solutions. Interface Impedance and the Apparent Electrical. J. C. Barton and F. A. Lewis	1949
R.F. Discharge (10 Mc/sec). Appearance Potential and Scattering Cross-section of Oxygen Atoms from an. Part 4 of Theory and Application of Molecular-Beam Techniques for the Design of Collision-Free Sampling Systems. C. W. Nutt and	103
A. J. Biddlestone . Rhodium Film. Reaction of Ethane with a Clean. R. W. Roberts .	1368 1159
Rotational Energy Transfer. Vibrational. Part 5 of Transition Probability in Molecular Encounters. T. L. Cottrell and A. J. Matheson	2336
Jones, N. Pusat and W. Tempest Rotator Phase Solids. Dielectric Relaxation Studies of. Parts 1 and 2. C. Clemett and	2342
M. Davies	
in. D. J. Shaw and B. A. Dunell	132 1033 1938
Salts of Alkaline Earth Metals in Water at 25°C. Soret Coefficients and Heats of Transport of Some. A. D. Payton and J. C. R. Turner	55
Scattering Cross-section of Oxygen Atoms from an R.F. Discharge (10 Mc/sec). Appearance Potential and. Part 4 of Theory and Application of Molecular-Beam Techniques for the Design of Collision-Free Sampling Systems. C. W. Nutt and A. J.	1260
Biddlestone	1363 1090
Sedimentation of Charged Macromolecules. R. G. Wallis and B. R. Record Self-Diffusion of Sodium Ions in Analcite and Anhydrous Analcite. D. Barlow and I. R. Beattie	1251
	2410
Semi-Conductivity and Thermoelectric Power of Cadmium Oxide. E. F. Lamb and F. C. Tompkins	1424
Shapes of Hydride Molecules. Role of Atomic Valence State Energies in the Determination of. D. A. Hutchinson.	i, 411 1669
Sign of the Spin Coupling Constants. The Absolute. Effects of a Strong Electric Field on N.M.R. Spectra. A. D. Buckingham and E. G. Lovering	2077
Silica-Alumina Surface. Formation and Stability of Hydrocarbon Radical-lons on a. J. J. Roonev and R. C. Pink	1632
Silicas. Thermodynamic Studies of Adsorption on Characterized. Part 1. J. A. Hockey and B. A. Pethica	2017
B. Henderson and G. V. Raynor	1573
Evans	1649
Barrer and E. A. Saxon-Napier	145
T. M. Sugden (SiH ₃ NCS) and Silyl Isothiocyanate-d ₃ . Vibrational Spectra of. E. A. V. Ebsworth,	1284
R. Mould, R. Taylor, G. R. Wilkinson and L. A. Woodward	1069 145

	PAGE
Sodium Ions in Analcite and Anhydrous Analcite. Self-Diffusion of. D. Barlow and I. R.	138
Beattie Aluminate. Structural Interpretation of the System Cryolite+. J. L. Holm Bromide: A Study in Surface Thermodynamics. Reaction of Hydrogen Chloride	1104
Gas with. L. G. Harrison and R. A. Siddiqui	982
the Decane-Water Interface. Adsorption of. D. H. Haydon and F. H. Taylor Solid Adsorbent. Surface Hydrogen Bonds and the Elastic Properties of a. Y. Kozirouski	1233
and M. Folman	2228
Meakins	1953
— State. Conductance of Potassium Chloride in the. A. R. Allnatt and P. W. M. Jacobs Solids. High Temperature Adsorption and the Determination of the Surface Area of. J. A. Barker and D. H. Everett	116 1608
Correlation of Dissociation Energies of Gaseous Molecules and of Heats of Vaporiz-	1026
ation of. Part 1. G. Verhaegen, F. E. Stafford, P. Goldfinger and M. Ackerman Solochrome Violet R. Complex Formation—Data for. Part 3. E. Coates and B. Rigg.	1926 88
—— Complex Formation. Part 4. E. Coates and B. Rigg	2058
from. G. F. Smith	350
Combustion Calorimetry of Organofluorine Compounds. J. D. Cox and A. J. Head	1839
Solute Band Broadening in Packed Gas Chromatographic Columns: Mechanisms Residing	
in the Mobile Phase. P. C. Van Berge, P. C. Haarhoff and V. Pretorius Solution. Raman Spectrum of the Hexachloroplumbate Ion PbCl ² - in. J. A. Creighton	2272
and L. A. Woodward	1077
Kipling and E. H. M. Wright Behaviour in Dilute. Part 2 of Styrene+Methyl Methacrylate Block Copolymers.	74
G. M. Burnett, P. Meares and C. Paton	737
	8, 923
— Extraction Studies of Ion Association. Some Europium Complexes. P. G. Manning and C. B. Monk	938
— in Styrene Polymerization. Chain Transfer to. Parts 1 and 2. A. C. Toohey and K. E. Weale	2446
 on π-π Intermolecular Charge-transfer Complexes. Effect of. Part 4 of Interaction of Electron Acceptors with Bases. R. Foster and T. H. Thomson 	860
—— Shifts and Molecular Interactions. Infra-red. Part 1. E. A. Cutmore and H. E. Hallam	40
—— Shifts and Molecular Interactions. Infra-red. Part 2. H. E. Hallam and T. C. Ray. —— Systems. Application of Prigogine Solution Theory to the Heats of Mixing of some	1299
Polymer G. Delmas, D. Patterson and D. Bohme	2116
—— Containing Tri-n-Octyl Amine. Distribution of Nitric Acid between Water and Organic. J. M. P. J. Verstegen	1878
Soret Coefficients and Heats of Transport of Some Salts of Alkaline Earth Metals in Water at 25°C. A. D. Payton and J. C. R. Turner	55
Sound Velocity in Solutions of Metal Organic Compounds. Molar. P. R. K. L. Padmini	
and B. Ramachandra Rao	650
Coupling Constant. A. D. Buckingham and E. G. Lovering	2077
Part 4 of Force Constant Calculations. D. A. Long, J. Y. H. Chau and R. B.	
Gravenor . — of Alkyl Radicals in γ -Irradiated Alkyl Halides. Electron Spin Resonance. P. B.	2316
Ayscough and C. Thomson	1477
Reactivities and Visible. Part 5 of Studies of Organo-Alkali Metal Complexes. A Mathias and E. Warhurst.	942
— of Dialkyl Substituted Benzene Radicals. Emission. T. F. Bindley, A. T. Watts and	849
S. Walker . — of Metal Colored Companyeds 15C and 17O N.M.R. R. Perendey, R. N. Ficcia and	1624
—— of Metal Carbonyl Compounds. ¹⁵ C and ¹⁷ O N.M.R. R. Bramley, B. N. Figgis and R. S. Nyholm	1893
of Methyl Mercuric Perchlorate and Nitrate in Solution. Raman. P. L. Goggin and L. A. Woodward	1495
of Mono-Alkyl-Substituted Benzenes and Corresponding Radicals. Electronic. T. F.	212

SUBJECT INDEX—VOLUME 58, 1962	2549
Spectra of Organic Acceptor Molecules. Reduction Potentials and Intermolecular Charge-transfer. Part 1. M. E. Peover — of Organic Acceptor Molecules. Reduction Potentials and Intermolecular Charge-transfer. Part 2. M. E. Peover — of Silyl Isothiocyanate (SiH ₃ NCS) and Silyl Isothiocyanate-d ₃ . Vibrational. E. A. V. Ebsworth, R. Mould, R. Taylor, G. R. Wilkinson and L. A. Woodward — of some Organo-Alkaline Earth Metal Complexes. Reactivity and. Part 6 of Studies of Organo-Alkali and Alkaline Earth Metal Complexes. A. Mathias and E. Warhurst — of Thiophenol and Thioglycollic Acid. Infra-red. B. D. Saksena and P. H. Trevedi Spectral Lines. Pressure-Induced Shifts and Broadenings of Infra-red. A. D. Buckingham. Spectrometric Study of the Pyrolysis of Acetylene. Infra-red. Part 1. C. F. Cullis, G. J. Minkoff and M. A. Nettleton Spectroscopic Studies of Sulphur Nitride Ions. D. Chapman and A. G. Massey.	2549 PAGE 1656 2370 1069 948 2082 449 1117 1291
Spectrum and Structure of Silyl Isothiocyanate. Microwave. D. R. Jenkins, R. Kewley and T. M. Sugden — of the Benzophenone Free Radical Anion. Effect of Environment on the Visible. Part 7 of Studies of Organo-Alkali and Alkaline Earth Metal Complexes. D. G. Powell and E. Warhurst — of the Hexachloroplumbate Ion PbCl ₆ ²⁻ in Solution. Raman. J. A. Creighton and	953
L. A. Woodward Spin Coupling Constant. The Absolute Sign of the. Effects of a Strong Electric Field on N.M.R. Spectra. A. D. Buckingham and E. G. Lovering Stability and Reactions of the Tetrachloroethyl Radical. G. Huybrechts, L. Meyers and G. Verbeke of Arachidic Acid Soils. R. H. Ottewill and D. J. Wilkins of Hydrocarbon Radical-Ions on a Silica-Alumina Surface. Formation and. J. J.	1077 2077 1128 608 1632
Rooney and R. C. Pink — Constants. Some Metal Dye. Part 4 of Complex Formation Solochrome Violet R. E. Coates and B. Rigg. Steady-State Diffusion of Oxygen through Whole Blood. R. C. LaForce and I. Fatt. — in Two Intermediate Enzyme Reactions. Departure from the. H. Shin. Stereoregularity in Heterogeneous Ziegler-Natta Catalysis. P. Cossee Structural Interpretation of the System Cryolite+Sodium Aluminate. J. L. Holm	2058 1451 1439 1226 1104
Structure and Electrochemical Potential of Palladium while Absorbing Hydrogen in Aqueous Solution. Surface. P. C. Aben and W. G. Burgers — and Viscosity of Melts of Phenyl Naphthalenes and Dinaphthyls. E. H. Binns and K. H. Squire — II. Inclusion Energies and Constants in the Small Cavities of. Part 3 of Non-Stoichiometric Clathrate Compounds of Water. R. M. Barrer and D. J. Ruzicka — of Magnetite. Electron Diffraction Study on the Magnetic Crystal. S. Yamaguchi — of N-Methylaminotrimethylsilane. Electron Diffraction Investigation of the Molecular.	1989 762 2253 1690
W. R. Roper and C. J. Wilkins — of Silyl Isothiocyanate. Microwave Spectrum and. D. R. Jenkins, R. Kewley and T. M. Sugden — of the Electrical Double Layer. Specific Absorption of Tetra-Alkyl-Ammonium Iodides at the Mercury-Water Interface and the. M. A. V. Devanathan and M. J. Fernando Styrene and Methyl Methacrylate. Triphenylmethane with. Part 1 of Tracer Studies of	1686 1284 368
Transfer Reactions. J. C. Bevington and H. G. Troth Copolymers. Glass-Transition Temperature of Methyl Methacrylate+. Part 4 of Physical Properties of Vinyl Polymers. R. B. Beevers Kinetics of Decomposition of azo-bis-isobutyronitrile in Dimethylformamide in the Presence of Ferric Chloride and. J. Betts, F. S. Dainton and K. J. Ivin + Methyl Methacrylate Block Copolymers. Parts 1 and 2. G. M. Burnett, P. Meares and C. Paton	2005 1465 1203 23, 737
 and their Monomer. Equilibria between Low-Molecular-Weight Poly-α-Methyl. A. Vrancken, J. Smid and M. Szwarc Succinic or p-Hydroxy-benzoic Acid at 25°C. Standard Potentials in Aqueous Hydrochloric Acid Solutions containing Suppressed. H. Sadek and Th. F. Tadros Sulphate-Reducing Bacteria. Polarization Studies of Mild Steel in Cultures of. Part 2. 	2036 2192
A. K. Tiller and G. H. Booth	2510 33

	PAGE
Sulphides. Studies in the Thermochemistry of Organic. Parts 2 and 3. H. Mackle and	
), 238
Studies in the Thermochemistry of Organic. Part 4. H. Mackle and R. T. B. McLean	895
Sulphur Atom. Electron Affinities of the Sulphydryl Radical and the. Part 4 of Determination of Electron Affinities. D. A. Ansdell and F. M. Page	1084
in the Saturated Vapour. Magnetic Determination of the Partial Vapour Pressure of	1004
Diatomic. J. A. Poulis, C. H. Massen and P. V. D. Leeden	52
— Magnetic Susceptibility of Liquid. J. A. Poulis, C. H. Massen and P. V. D. Leeden	474
— Dioxide in the Region of the Ceiling Temperature. Copolymerization of Pairs of Olefines	
with. J. E. Hazell and K. J. Ivin	342
Nitride Ions. Spectroscopic Studies of. D. Chapman and A. G. Massey	1291
Sulphuric Acid. Compressibility of Dilute Solutions of. P. L. Khare	363
Sulphydryl Radical and the Sulphur Atom. Electron Affinities of the. Part 4 of Determination	1084
of Electron Affinities. D. A. Ansdell and F. M. Page Surface Area of Solids. High Temperature Adsorption and the Determination of the.	1004
J. A. Barker and D. H. Everett	1608
— Charge on Ice Nucleation by Silver Iodide. Effect of. G. R. Edwards and L. F. Evans	1649
Surface Coverage. Kinetic Theory of Pseudo-Capacitance and Electrode Reactions at	
Appreciable. B. E. Conway and E. Gileadi	2493
Formation and Stability of Hydrocarbon Radical-Ions on a Silica-Alumina. J. J.	
Rooney and R. C. Pink	1632
— Hydrogen Bonds and the Elastic Properties of a Solid Adsorbent. Y. Kozirouski and	2220
M. Folman — of Nickel Films during Hydrogenation. Direct Observation of Ethylene-C-14 on the.	2228
Part 4 of Radiochemical Studies of Chemisorption and Catalysis. S. J. Thomson	
and J. L. Wishlade	1170
— Pressure of Ionized Monolayers. G. M. Bell, S. Levine and B. A. Pethica.	904
— Structure and Electrochemical Potential of Palladium while Absorbing Hydrogen in	
Aqueous Solution. P. C. Aben and W. G. Burgers	1989
— Thermodynamics. Reaction of Hydrogen Chloride Gas with Sodium Bromide: A	
Study in. L. G. Harrison and R. A. Siddiqui	982
- with Oxygen. Etching of Graphite. E. E. Glenda Hughes, B. R. Williams and J. M.	2011
Thomas	2011
Pathki	2134
— of Liquid Sulphur. Magnetic. J. A. Poulis, C. H. Massen and P. V. D. Leeden.	474
Synthesis. Calcium Cyanamide. Part 4. A. J. Dedman and A. J. Owen	2027
Tantalum. Heats of Formation of Metal Halides: Pentabromides of Niobium. P. Gross,	
C. Hayman, D. L. Levi and G. L. Wilson	890
Telomerization of Methylmethacrylate with Bromo-Trichloro-Methane. Photochemical. J. C.	
Robb and E. Senogles	708
Temperature Coefficient of Latent Heat and the Curvature of the Vapour Pressure Line of	
Formic Acid, Acetic Acid and other Dissociating Vapours. J. W. Armitage and P. Gray	1746
— on the Micelle Size of a Homogeneous Non-Ionic Detergent. Effect of. R. R. Balmbra,	1740
J. S. Clunie, J. M. Corkill and J. F. Goodman	1661
Termination. Chain Reactions Involving Simultaneous First- and Second-Order. Theory and	
Application of the Non-Stationary State Method. W. I. Bengough	716
— in Free Radical Copolymerization. Diffusion-Controlled. J. N. Atherton and A. M.	
North	2049
Tetra-Arsenic Tetrasulphide. An "Electron on a Sphere" Model for Tetrasulphur Tetra- nitride and for. Part 1 of Free-Electron Molecular-Orbital Calculations for	
Inorganic Systems. D. Chapman and T. C. Waddington	1679
chloroethyl Radical. Stability and Reactions of the. G. Huybrechts, L. Meyers and	1019
G Verbeke	1128
— halides. Root Mean Square Ampitudes of Vibration in some Group 4. Part 2. D. A. Long and J. Y. H. Chau	
D. A. Long and J. Y. H. Chau	2328
- sulphur Tetranitride and for Tetra-Arsenic Tetrasulphide. An "Electron on a Sphere"	
Model for. Part 1 of Free Electron Molecular-Orbital Calculations for Inorganic Systems. D. Chapman and T. C. Waddington	1470
Thermal and Isothermal Explosions on the Inhibition of the Hydrogen+Oxygen Reaction	1679
By Hydrocarbons. R. R. Baldwin, D. Booth and R. W. Walker	60
— Decomposition of Magnesium Hydroxide. P. J. Anderson and R. F. Horlock	1993
— Decomposition of Nickel Oxalate Dihydrate. P. W. M. Jacobs and A. R. T. Kureishy	551
— Decomposition of Nitrogen Dioxide. Concurrent Molecular and Free Radical Mechan-	
isms in the. P. G. Ashmore and M. G. Burnett	253
— Diffusion Problem for Thermal Dissociation or Gas-Condensed Phase Equilibria Measured Statically. Solution of the. A. F. Reid.	((0
Measured Statically. Solution of the. A. F. Reid.	662 1789

SUBJECT INDEX—VOLUME 58, 1962	2551
Thermal Oxidation of Polyethylene. N. T. Notley	page 66
 Unimolecular Isomerization of Bicyclo[3,1,0]hexane. Unimolecular Isomerization of 1-Methylcyclobutene. H. M. Frey H. M. Frey 	697 957
Thermistor Manometer Methods. Vapour Pressure and Latent Heat of Sublimation at 25°C by the Effusion and. Part 2 of Thermodynamic Properties of Ferrocene. J. W. Edwards and G. L. Kington.	
Thermochemistry of Organic Sulphides. Studies in the. Part 1. H. Mackle and R. G. Mayrick	1323
	33 0, 238 895
oxide. Some Excess. R. A. H. Pool, G. Saville, T. M. Herrington, B. D. C. Shields, L. A. K. Staveley	1692
—— Properties of Dimethyl Sulphoxide and Dimethyl Sulphone. H. Mackle and P. A. G. O'Hare	1912
— Properties of Organic Oxygen Compounds. Part 6. H. A. Gundry, A. J. Head and G. B. Lewis	1334 1309
—— Properties of Solutions of Alcohols and Carbon Tetrachloride. Parts 1 and 2. JE. A. Otterstedt, G. C. Paraskevopoulos and R. W. Missen	9, 879
— Studies of Adsorption on Characterized Silicas. Part 1. J. A. Hockey and B. A. Pethica	2017
Thermodynamics of the Ionization of Substituted Phenols. D. T. Y. Chen and K. J. Laidler — Reaction of Hydrogen Chloride Gas with Sodium Bromide: A Study in Surface. L. G.	480
Harrison and R. A. Siddiqui Thermoelasticity of Keratin Fibres. M. M. Breuer	982 2066
Thermoelectric Power of Cadmium Oxide. Semi-Conductivity and. E. F. Lamb and F. C. Tompkins	1424
Thermophilic Organisms. Part 2 of Polarization Studies of Mild Steel in Cultures of Sulphate-Reducing Bacteria. A. K. Tiller and G. H. Booth	110
Thickness of the Adsorbed Layer. Adsorption from Solution: Miss J. V. Cornford, J. J. Kipling and E. H. M. Wright	74
Thioglycollic Acid. Infra-red Spectra of Thiophenol and. B. D. Saksena and P. H. Trevedi Thiolbenzoic Acid. Hydrogen Bonding in. Infra-red, Ultra-violet, N.M.R. and Cryoscopic Studies. A. S. N. Murthy, C. N. R. Rao, A. D. N. Rao and P. Venkateswarlu.	2082
Thiophenol and Thioglycollic Acid. Infra-red Spectra of. B. D. Saksena and P. H. Trevedi. Thiourea and Formamidine Disulphide. Salts of Urea. Part 4 of Proton Magnetic Reson-	2082
ance Studies of Amides. C. R. Redpath and J. A. S. Smith Tin+Cadmium. Lattice Spacing Relationships in the Ternary System Gold+. B. Henderson	462
and G. U. Raynor	900
B. Henderson and G. V. Raynor	1573
Measurement of Very Low Vapour Pressures using Radioactive Isotopes. A. S. Carson, R. Cooper and D. R. Stranks	2125
Toluene. Reactions of Trifluoromethyl Radicals with Benzene and. J. L. Holmes and K. O. Kutschke	333
Tracer. Kinetics of the Exchange Reaction CD ₃ +CD ₄ ⇒CD ₄ +CD ₃ using ¹⁴ C as. G. A. Creak, F. S. Dainton and K. J. Ivin	326
— Studies in Azoisobutyronitrile as an Initiator for Radical Polymerizations. Further. J. C. Bevington and H. C. Troth	186
—— Studies of Transfer Reactions. Part 1. J. C. Bevington and H. G. Troth. Transfer Constants for Polymerization with an Initiator. Solvent. Part 1 of Chain Transfer to	2005
Solvent in Styrene Polymerization. A. C. Toohey and K. E. Weale	2439
—— Reactions. Tracer Studies of. Part 1. J. C. Bevington and H. G. Troth. Transformations and Force Constants. Calculation of Normal Co-ordinate. Part 2 of Root	2005
Mean Square Amplitudes of Vibration in some Group 4 Tetrahalides. D. A. Long and J. Y. H. Chau	2328
— Mechanism of Crystal Structure. Part 3. S. R. Yoganarasimhan and C. N. R. Rao.	1579
Transition Probability in Molecular Encounters. Part 5. T. L. Cottrell and A. J. Matheson Transport Properties of Binary Regular Solutions. J. K. Horrocks and E. McLaughlin	2336 1357
Trichloroethylene. Competitive Photochlorination in Mixtures of cis-1,2-Dichloroethylene with (a) Vinyl Chloride and (b). Part 8 of Photochlorination Studies. P. B.	
Ayscough, A. J. Cocker, F. S. Dainton and S. Hirst	318
Ketones. R. Bowles, J. R. Majer and J. C. Robb	2394
Triethylamine. Ultrasonic Behaviour of Binary Liquid Mixtures Containing. Part 1. K. C. Reddy, S. V. Subrahmanyam and J. Bhimasenachar	2352

	PAGI
Trifluoromethyl Radicals with Benzene and Toluene. Reactions of. J. L. Holmes and K. O. Kutschke	333
— triazine. Vibrational Spectra, In-Plane Assignments and Force Constants of 1,3,5 Part 4 of Force Constant Calculations. D. A. Long, J. Y. H. Chau and R. B.	
Gravenor	2316
Trimethylammonium Bromides at the Decane-Water Interface. Adsorption of Sodium Octyl and Decyl Sulphates and Octyl and Decyl. D. H. Haydon and F. H. Taylor .	1233
Tri-n-octyl Amine. Distribution of Nitric Acid between Water and Organic Solvents containing. J. M. P. J. Verstegen	1878
Triphenylmethane with Styrene and Methyl Methacrylate. Part 1 of Tracer Studies of Transfer	
Reactions. J. C. Bevington and H. G. Troth	2005 1908
Tungsten. Catalytic Exchange of Hydrogen Sulphide and of Hydrogen with Deuterium on Disulphides of Molybdenum and. R. L. Wilson, C. Kemball and A. K. Galwey	583
- Films. Interaction of Methyl Mercaptan with Nickel and. J. M. Saleh, M. W. Roberts	
and C. Kemball	1642
R. M. Dell and V. J. Wheeler UO ₂ and UF ₄ . Conversion to U ₃ O ₈ . Part 1 of Chemical Reactivity of Uranium Trioxide.	1590
R. M. Dell and V. J. Wheeler	1590
U ₃ O ₈ , UO ₂ and UF ₄ . Conversion to. Part 1 of Chemical Reactivity of Uranium Trioxide. R. M. Dell and V. J. Wheeler	1590
Ultra-violet, N.M.R. and Cryoscopic Studies. Hydrogen Bonding in Thiolbenzoic Acid. Infra-red. A. S. N. Murthy, C. N. R. Rao, A. D. N. Rao and P. Venkateswarlu	855
Ultrasonic Behaviour of Binary Liquid Mixtures containing Triethylamine. Part 1. K. C.	
Reddy, S. V. Subrahmanyam and J. Bhimasenachar Unimolecular Isomerization of Bicyclo[3,1,0]hexane. Thermal. H. M. Frey and R. C. Smith	2352 697
Uranium Trioxide. Chemical Reactivity of. Part 1. R. M. Dell and V. J. Wheeler Urea. Thiourea and Formamidine Disulphide. Salts of. Part 4 of Proton Magnetic Reson-	1590
ance Studies of Amides. C. R. Redpath and J. A. S. Smith	462
Vapour Pressure and Latent Heat of Sublimation at 25°C by the Effusion and Thermistor Manometer Methods. Part 2 of Thermodynamic Properties of Ferrocene. J. W	
Edwards and G. L. Kington	1323
efficient of Latent Heat and the Curvature of the. J. W. Armitage and P. Gray. —— of Diatomic Sulphur in the Saturated Vapour. Magnetic Determination of the Partial.	1746
J. A. Poulis, C. H. Massen and P. V. D. Leeden	52
— using Radioactive Isotopes. Measurement of Very Low. Part 2. A. S. Carson, R. Cooper and D. R. Stranks	2125
— Phase Changes in Salt. Part 2. E. R. Buckle and C. N. Hooker	1938
and M. G. Burnett	1801
— in Solutions of Metal Organic Compounds. Molar Sound. P. R. K. L. Padmini and B. Ramachandra Rao	650
Vibration in some Group 4 Tetrahalides. Root Mean Square Amplitudes of. Part 2. D. A. Long and J. Y. H. Chau	2328
Vibrational Frequencies and Force Constants in the Mercuri-Iodide Ion HgI ₂ ⁴ . D. A.	
Long and J. Y. H. Chau	2325
counters. T. L. Cottrell and A. J. Matheson	2336
of Force Constant Calculations. D. A. Long, J. Y. H. Chau and R. B. Gravenor	2316
—— Spectra of Silyl Isothiocyanate (SiH ₃ NCS) and Silyl Isothiocyanate-d ₃ . E. A. V. Ebsworth, R. Mould, R. Taylor, G. R. Wilkinson and L. A. Woodward	1069
Vinyl Chloride and Ethylene. Part 7 of Photochlorination Studies. F. S. Dainton, D. A. Lomax and M. Weston	308
and (b) Trichloroethylene. Competitive Photochlorination in Mixtures of cis-1,2-	500
Dichloroethylene with (a). Part 8 of Photochlorination Studies. P. B. Ayscough, A. J. Cocker, F. S. Dainton and S. Hirst	318
— -cyclopropane. Addition of Methylene to Butadiene and the Unimolecular Isomer- ization of Excited. H. M. Frey	516
— Polymerization and the Interaction of Radicals with Ferric Chloride. Initiation of.	
C. H. Bamford, A. D. Jenkins and R. Johnston —— Polymers. Physical Properties of. Part 4. R. B. Beevers	1212 1465
Viscosity of Melts of Phenyl Naphthalenes and Dinaphthyls. Structure and. E. H. Binns and K. H. Squire	762
Volumes of Mixing. Free Energies and. Part 1 of Thermodynamic Properties of Solutions of Alcohols and Carbon Tetrachloride. G. C. Paraskevopoulos and R. W.	
Missen	869

SUBJECT INDEX—VOLUME 58, 1962	2553
	PAGE
Water and Organic Solvents containing Tri-n-Octyl Amine. Distribution of Nitric Acid	
between. J. M. P. J. Verstegen	1878
— as a Third Body in the Reaction H+O ₂ +M. Efficiency of. R. R. Baldwin and C. T. Brooks	1782
at 25°C. Soret Coefficients and Heats of Transport of some Salts of Alkaline Earth	
Metals in. A. D. Payton and J. C. R. Turner	55
Interface. Adsorption of Sodium Octyl and Decyl Sulphates and Octyl and Decyl	
Trimethylammonium Bromides at the Decane. D. H. Haydon and F. H. Taylor	
— Interface and the Structure of the Electrical Double Layer. Specific Absorption of	
Tetra-Alkyl-Ammonium Iodides at the Mercury. M. A. V. Devanathan and	
M. J. Fernando	368
Non-Stoichiometric Clathrate Compounds in. Parts 2, 3 and 4. R. M. Barrer and	
D. J. Ruzicka	
Withdrawal Rate on the Second Limit of the Hydrogen + Oxygen Reaction. Self-Inhibition of	
Explosions; the Effect of. R. R. Baldwin, P. Doran and L. Mayor.	2410
Ziegler-Natta Catalysis. Stereoregularity in Heterogeneous. P. Cossee	1226