

Subject Index

A

- Acid catalysis. Regional analysis for solid, YUKIO YONEDA, 51
- Acid sites. The effect of faujasite cations on, JAMES T. RICHARDSON, 182
- Acidity of fluorinated aluminas, and their catalytic activity; meaning and limits of a correlation. R. COVINI, V. FATTORE, AND N. GIORDANO, 315
- Active sites on zeolites. II. Temperature dependence of the infrared spectra of hydrogen Y zeolite. The nature of, JOHN W. WARD, 225
- Alcohols over alumina. Mechanism of ether formation. Catalytic dehydration of, JAGDISH RAI JAIN AND C. N. PILLAI, 322
- Alumina. The effect of foreign ions on the stability of activated, R. M. LEVY AND D. J. BAUER, 76
- Alumina. Mechanism of ether formation. Catalytic dehydration of alcohols over, JAGDISH RAI JAIN AND C. N. PILLAI, 322
- Alumina. I. Hydrogenation of olefins on, Y. AMENOMIYA, J. H. B. CHENIER, AND R. J. CVETANOVIC, 28
- Alumina catalysts. I. Ethanol dehydration on. The thermal desorption of surface compounds. HIROMICHI ARAI, JUN-ICHIRO TAKE, YASUKAZU SAITO, AND YUKIO YONEDA, 146
- Aluminas. Evidence for the redox nature of the surface of catalytic, B. D. FLOCKHART, I. R. LEITH, AND R. C. PINK, 45
- Aluminas, and their catalytic activity; meaning and limits of a correlation. Acidity of fluorinated, R. COVINI, V. FATTORE, AND N. GIORDANO, 315
- Ammonia absorption on a decationized Y zeolite. J. E. BENSON, K. USHIBA, AND MICHEL BOUDART, 91
- Amorphous solids. A new infrared technique for characterizing partially, RICHARD M. LEVY, 87
- α -Amylnaphthalene on silica-alumina catalyst. Dehydrocyclization of, CHR. DIMITROV AND Z. POPOVA, 1
- Author Index, 421
- Autoxidation of carbon monoxide by cobalt corrins. Catalysis of the, J. H. BAYSTON AND M. E. WINFIELD, 217

B

- Benzene hydrogenation. The relative specific activity of some supported Group VIII metals for, WILLIAM F. TAYLOR, 99
- Book review, "Adsorption, Surface Area and

- Porosity," by S. J. Gregg and K. S. W. Sing, J. C. P. BROEKHOFF, 313
- Book review, "Infrared Spectroscopy in Surface Chemistry," by Michael L. Hair, J. B. PERI, 195
- Book review, "Infrared Spectra of Adsorbed Species," by L. H. Little, H. P. LEFTIN, 98
- n*-Butane over chromia-alumina. Kinetics and mechanism in catalytic dehydrogenation of, S. CARRÀ, L. FORNI, AND C. VINTANI, 154
- Butene isomerization catalyzed by supported metals in the absence of molecular hydrogen. P. B. WELLS AND G. R. WILSON, 70
- n*-Butenes. The catalytic activity and selectivity of metal sulfates for the isomerization of, MAKOTO MISONO, YASUKAZU SAITO, AND YUKIO YONEDA, 135
- n*-Butylbenzene over nonacidic chromia-alumina. The reactions of, SIGMUND M. CSICSERY, 416
- n*-Butylbenzene over supported platinum catalysts. Reactions of, SIGMUND M. CSICSERY, 336

C

- Cadmium oxide. Surface properties and hydration of, R. B. FAHIM AND K. M. ABD. EL-SALAAM, 63
- Carbon monoxide by cobalt corrins. Catalysis of the autoxidation of, J. H. BAYSTON AND M. E. WINFIELD, 217
- Carbon monoxide on three dispersed electrode systems. A study of the rate of oxidation of, KATHLEEN D. N. BRUMMER, 207
- Chemisorption of sulfur on metal oxide catalysts. W. J. THOMAS AND USMAN ULLAH, 278
- Chromia-alumina. Kinetics and mechanism in catalytic dehydrogenation of *n*-butane over, S. CARRÀ, L. FORNI, AND C. VINTANI, 154
- Chromia-alumina. The reactions of *n*-butylbenzene over nonacidic, SIGMUND M. CSICSERY, 416
- Chromium in silica-alumina-supported polymerization catalysts. The oxidation state of, C. EDEN, H. FEILCHENFELD, AND Y. HASS, 367
- Chromium oxide catalysts for propene polymerization. III. Magnetic properties, P. TURLIER, M. DURRIEU, AND A. GUYOT, 295
- Cinnamaldehyde over platinum and nickel wire. A method for studying catalytic hydrogenation of aqueous, R. M. ROBERTS AND H. A. BENESI, 307
- Cobalt corrins. Catalysis of the autoxidation of carbon monoxide by, J. H. BAYSTON AND M. E. WINFIELD, 217

- CO oxidation. More than one oxygen species sorbed on ZnO. ESR evidence of, KENNETH M. SANCIER, 331
- Compacting pressure on the catalytic activity of the ZnO-Cr₂O₃ catalyst. Effects of, YOSHISADA OGINO AND SHINICHIRO NAKAJIMA, 251
- Copper-nickel alloy films. The formation and structure of evaporated, J. J. BYRNE AND J. K. A. CLARKE, 166
- Copper oxide on alumina. I. XRD studies. E. D. PIERRON, J. A. RASHKIN, AND J. F. ROTH, 38
- Corrins. Catalysis of the autoxidation of carbon monoxide by cobalt, J. H. BAYSTON AND M. E. WINFIELD, 217
- Crystal defects on the catalytic activity of silver. The influence of orientation and, H. JAEGER, 237
- Crystal field effects in ion-exchanged faujasites. JAMES T. RICHARDSON, 178
- Cyclohexane by exchange with tritium gas on raney nickel. The labelling of, M. A. LONG, A. L. ODELL, AND J. B. RICHARDSON, 410
- ### D
- Dehydration of alcohols over alumina. Mechanism of ether formation. JAGDISH RAI JAIN AND C. N. PILLAI, 322
- Dehydrocyclization of α -amyl-naphthalene on silica-alumina catalyst. CHR. DIMITROV AND Z. POPOVA, 1
- Dehydrogenation of *n*-butane over chromia-alumina. Kinetics and mechanism in catalytic, S. CARRÀ, L. FORNI, AND C. VINTANI, 154
- Disproportionation. The kinetics of propylene, J. W. BEGLEY AND R. T. WILSON, 375
- Distribution of oxidation power on nickel oxide catalysts. The measurement of the, TOSHIO UCHIJIMA, MASAMICHI TAKAHASHI, AND YUKIO YONEDA, 403
- ### E
- Electrode systems. A study of the rate of oxidation of carbon monoxide on three dispersed, KATHLEEN D. N. BRUMMER, 207
- Electron donor-acceptor complexes. The selective hydrogenation of unsaturated hydrocarbons, over, MAZARU ICHIKAWA, MITSUYUKI SOMA, TAKAHARU ONISHI, AND KENZI TAMARU, 418
- ESR evidence of CO oxidation. More than one oxygen species sorbed on ZnO. KENNETH M. SANCIER, 331
- ESR studies of cationic oxidation sites in faujasite, JAMES T. RICHARDSON, 172
- ESR study of the nature of the surface oxygen during the oxidation of a nonstoichiometric rutile surface with oxides of nitrogen. R. D. IYENGAR, M. CODELL, AND J. TURKEVICH, 305
- Ethanol dehydration on alumina catalysts. I. The thermal desorption of surface compounds. HIROMICHI ARAI, JUN-ICHIRO TAKE, YASUKAZU SAITO, AND YUKIO YONEDA, 146
- Ether formation. Catalytic dehydration of alcohols over alumina. Mechanism of, JAGDISH RAI JAIN AND C. N. PILLAI, 322
- Ethylamine on silica gels. Further studies of the sorption of, R. A. ROSS AND A. H. TAYLOR, 104
- ### F
- Faujasite cations on acid sites. The effect of, JAMES T. RICHARDSON, 182
- Faujasite. ESR studies of cationic oxidation sites in, JAMES T. RICHARDSON, 172
- Faujasites. Crystal field effects in ion-exchanged, JAMES T. RICHARDSON, 178
- Fluorinated aluminas, and their catalytic activity; meaning and limits of a correlation. Acidity of, R. COVINI, V. FATTORE, AND N. GIORDANO, 315
- Formic acid decomposition. The catalytic activity of nickel and nickel boride for, J. GINER AND E. RISSMANN, 115
- Formic acid decomposition at low pressures on flashed and unflashed platinum wires, E. M. A. WILLHOFT AND A. J. B. ROBERTSON, 358
- ### H
- Hydrocarbons on transition metal catalysts in the presence of tritium. Part I. M. A. LONG, A. L. ODELL, AND J. B. RICHARDSON, 410
- Hydrocarbons, over various electron donor-acceptor complexes. The selective hydrogenation of unsaturated, MASARU ICHIKAWA, MITSUYUKI SOMA, TAKAHARU ONISHI, AND KENZI TAMARU, 418
- Hydrogen titration of oxygen on supported platinum. The stoichiometry for, D. E. MEARS AND R. C. HANSFORD, 125
- Hydrogenation of aqueous cinnamaldehyde over platinum and nickel wire. A method for studying catalytic, R. M. ROBERTS AND H. A. BENESI, 307
- Hydrogenation of olefins on alumina. I. Active sites for hydrogenation of ethylene. Y. AMENOMIYA, J. H. B. CHENIER, AND R. J. CVETANOVIC, 28
- Hydrogenation of unsaturated hydrocarbons, over various electron donor-acceptor complexes. The selective, MASARU ICHIKAWA, MITSUYUKI SOMA, TAKAHARU ONISHI, AND KENZI TAMARU, 418
- ### I
- Infrared spectra of hydrogen Y zeolite. Temperature dependence of the, JOHN W. WARD, 396
- Infrared technique for characterizing partially

- amorphous solids. A new, RICHARD M. LEVY, 87
- Isomerization activity of molecular sieve zeolite catalysts. Effect of noble metal concentration upon the, M. A. LANEWALA, P. E. PICKERT, AND A. P. BOLTON, 95
- Isomerization of *n*-butenes. The catalytic activity and selectivity of metal sulfates for the, MAKOTO MISONO, YASUKAZU SAITO, AND YUKIO YONEDA, 135
- K**
- Kinetics and Catalysis*, abstracts, Academy of Sciences, U.S.S.R. Vol. 8, No. 1, January-February 1967, 197
- Kinetics of propylene disproportionation. J. W. BEGLEY AND R. T. WILSON, 375
- L**
- Linear free energy relationships in heterogeneous catalysis. IV. YUKIO YONEDA, 51
- Linear free energy relationships in heterogeneous catalysis. V. ISAO MOCHIDA AND YUKIO YONEDA, 57
- M**
- Magnetic properties and dispersion state of supported chromium oxide. P. TURLIER, M. DURRIEU, AND A. GUYOT, 295
- Metal sulfates for the isomerization of *n*-butenes. The catalytic activity and selectivity of, MAKOTO MISONO, YASUKAZU SAITO, AND YUKIO YONEDA, 135
- Metals for benzene hydrogenation. The relative specific activity of some supported Group VIII, WILLIAM F. TAYLOR, 99
- Metals in the absence of molecular hydrogen. Butene isomerization catalyzed by supported, P. B. WELLS AND G. R. WILSON, 70
- Methyl chloride and of methylene chloride at metal surfaces: I. Reactions at a sodium surface. J. R. ANDERSON AND B. H. MCCONKEY, 263
- Methylene chloride at metal surfaces: I. Reactions at a sodium surface. J. R. ANDERSON AND B. H. MCCONKEY, 263
- N**
- Neutron inelastic scattering. Study of the nature of water in rutile by slow, H. BOUTIN, H. PRASK, AND R. D. IYENGAR, 309
- Nickel and nickel boride for formic acid decomposition. The catalytic activity of J. GINER AND E. RISSMANN, 115
- Nickel oxide catalysts. The measurement of the distribution of oxidation power on, TOSHIO UCHIJIMA, MASAMICHI TAKAHASHI, AND YUKIO YONEDA, 403
- Nickel wire. A method for studying catalytic hydrogenation of aqueous cinnamaldehyde over platinum and, R. M. ROBERTS AND H. A. BENESI, 307
- Noble metal concentration upon the isomerization activity of molecular sieve zeolite catalysts. Effect of, M. A. LANEWALA, P. E. PICKERT, AND A. P. BOLTON, 95
- O**
- Olefins on alumina. I. Hydrogenation of, Y. AMENOMIYA, J. H. B. CHENIER, AND R. J. CVETANOVIC, 28
- Oxidation of carbon monoxide on three dispersed electrode systems. A study of the rate of, KATHLEEN D. N. BRUMMER, 207
- Oxidation of a nonstoichiometric rutile surface with oxides of nitrogen. An ESR study of the nature of the surface oxygen during the, R. D. IYENGAR, M. CODELL, AND J. TURKEVICH, 305
- Oxidation power on nickel oxide catalysts. The measurement of the distribution of, TOSHIO UCHIJIMA, MASAMICHI TAKAHASHI, AND YUKIO YONEDA, 403
- Oxidation sites in faujasite. ESR studies of cationic, JAMES T. RICHARDSON, 172
- Oxide catalysts. Chemisorption of sulfur on metal, W. J. THOMAS AND USMAN ULLAH, 278
- Oxygen on supported platinum. The stoichiometry for hydrogen titration of, D. E. MEARS AND R. C. HANSFORD, 125
- Oxygen species sorbed on ZnO. ESR evidence of CO oxidation. More than one, KENNETH M. SANCIER, 331
- P**
- Platinum. The stoichiometry for hydrogen titration of oxygen on supported, D. E. MEARS AND R. C. HANSFORD, 125
- Platinum and nickel wire. A method for studying catalytic hydrogenation of aqueous cinnamaldehyde over, R. M. ROBERTS AND H. A. BENESI, 307
- Platinum catalysts. Reactions of *n*-butylbenzene over supported, SIGMUND M. CSICSERY, 336
- Platinum wires. Formic acid decomposition at low pressures on flashed and unflashed, E. M. A. WILLHOFT AND A. J. B. ROBERTSON, 358
- Polymerization catalysts. The oxidation state of chromium in silica-alumina-supported, C. EDEN, H. FEILCHENFELD, AND Y. HASS, 367
- Pore distributions from the absorption branch of nitrogen isotherms, J. C. P. BROEKHOFF AND J. H. DE BOER, 8, 15
- Pore systems in catalysts. IX. Studies on, J. C. P. BROEKHOFF AND J. H. DE BOER, 8, 15

- Pressure on the catalytic activity of the ZnO-Cr₂O₃ catalyst. Effects of compacting, YOSHISADA OGINO AND SHINICHIRO NAKAJIMA, 251
- Propene polymerization. III. Supported chromium oxide catalysts for. Magnetic properties, P. TURLIER, M. DURRIEU, AND A. GUYOT, 295
- Propylene disproportionation. The kinetics of, J. W. BEGLEY AND R. T. WILSON, 375
- Q**
- Quantum chemical reactivity indexes to heterogeneous catalysis. An application of, ISAO MOCHIDA AND YUKIO YONEDA, 57
- R**
- Raney nickel. The labeling of cyclohexane by exchange with tritium gas on, M. A. LONG, A. L. ODELL, AND J. B. RICHARDSON, 410
- Redox nature of the surface of catalytic aluminas. Evidence for the B. D. FLOCKHART, I. R. LEITH, AND R. C. PINK, 45
- Rutile by slow neutron inelastic scattering. Study of the nature of water in, H. BOUTIN, H. PRASK, AND R. D. IYENGAR, 309
- Rutile surface with oxides of nitrogen. An ESR study of the nature of the surface oxygen during the oxidation of a nonstoichiometric, R. D. IYENGAR, M. CODELL, AND J. TURKEVICH, 305
- S**
- Silica-alumina catalyst. Dehydrocyclization of α -amyl-naphthalene on, CHR. DIMITROV AND Z. POPOVA, 1
- Silica gels. Further studies of the sorption of ethylamine on, R. A. ROSS AND A. H. TAYLOR, 104
- Silver. The influence of orientation and crystal defects on the catalytic activity of, H. JAEGER, 237
- Sodium surface. Reactions of methyl chloride and of methylene chloride at, J. R. ANDERSON AND B. H. MCCONKEY, 263
- Subject Index, 423
- Sulfur on metal oxide catalysts. Chemisorption of, W. J. THOMAS AND USMAN ULLAH, 278
- W**
- Water in rutile by slow neutron inelastic scattering. Study of the nature of, H. BOUTIN, H. PRASK, AND R. D. IYENGAR, 309
- X**
- X-Ray diffractometer study of selected catalysts. Heating-oscillating, JAMES L. MCATEE, JR., 289
- XRD studies of catalyst composition during air oxidation of carbon monoxide, E. D. PIERRON, J. A. RASHKIN, AND J. F. ROTH, 38
- Z**
- Y Zeolite. Ammonia absorption on a decationized, J. E. BENSON, K. USHIBA, AND MICHEL BOUTART, 91
- Y Zeolite. The nature of active sites on zeolites. I. The decationated, JOHN W. WARD, 225
- Zeolite catalysts. Effect of noble metal concentration upon the isomerization activity of molecular sieve, M. A. LANEWALA, P. E. PICKERT, AND A. P. BOLTON, 95
- Zeolites. II. Temperature dependence of the infrared spectra of hydrogen Y zeolite. The nature of active sites on, JOHN W. WARD, 396
- ZnO. ESR evidence of CO oxidation. More than one oxygen species sorbed on, KENNETH M. SANCIER, 331
- ZnO-Cr₂O₃ catalyst. Effects of compacting pressure on catalytic activity of the, YOSHISADA OGINO AND SHINICHIRO NAKAJIMA, 251