

Subject Index

A

- Acrylonitrile catalysts. Crystalline structures of USb_2O_{10} and $USbO_6$. ROBERT K. GRASSELLI, DEV D. SURESH, AND KERRO KNOX, 356
- Active site concentrations at rhodium, osmium, iridium and platinum surfaces. R. B. MOYES, P. B. WELLS, K. BARON, K. COMPSON, J. GRANT, AND R. HESELDEN, 224
- Adsorption apparatus for rapid determination of solid surfaces. GEORGI M. BLIZNAKOV, IVAN V. BAKARDJIEV, AND EVA M. GOCHEVA, 260
- Adsorption of nitric oxide on iron oxide. K. OTTO AND M. SHELEF, 184
- Adsorption of oxygen by silver and gold. W. R. MACDONALD AND K. E. HAYES, 115
- Alumina and silica-alumina, active sites by temperature programmed desorption. Y. AMENOMIYA AND R. J. CVETANOVIĆ, 329
- Alumina-spinel oxides in decomposition of ethyl alcohol vapor. D. E. R. BENNETT AND R. A. ROSS, 122
- AMBS AND FLANK. Comments on, G. T. KERR, D. H. OLSON, AND E. DEMPSEY, 236
- Ammonium Y zeolite. Thermal decomposition of, JOHN W. WARD, 349
- Aromatic radical cation formation on catalytic materials. P. L. CORIO AND S. SHIH, 126
- Azeotropic esterification. R. TARTARELLI, G. STOPPATO, F. MORELLI, A. LUCCHESI, AND M. GIORGINI, 219

B

- $BaSO_4$. Contact eliminations over, F. J. LOPEZ, P. ANDRÉU, O. BLASSINI, M. PÁEZ, AND H. NOLLER, 233
- Book review. "Mass transfer in heterogeneous catalysis," by CHARLES N. SATTERFIELD, Review by LEE F. BROWN, 240

C

- Carbon monoxide and hydrogen chemisorption on Raney nickel. J. FREEL, S. D. ROBERTSON, AND R. B. ANDERSON, 243
- Chemisorption rates by chromatography-hydrogen on cobalt. J. C. ADRIAN AND J. M. SMITH, 57
- CO. Disproportionation of over iron. G. D. RENSCHAW, C. ROSCOE, AND P. L. WALKER, JR., 164
- CO on a Ni catalyst. Methanation of, PETER SCHOUBYE, 118
- Cobalt. Chemisorption rates of hydrogen on. J. D. ADRIAN AND J. M. SMITH, 57

- Cobalt carbonyl complexes. Oxo chemistry via solid polymer-, A. J. MOFFAT, 193
- Cobalt tetraphenylporphine. Oxidation of, by ESR spectroscopy, KEN'ICHI YAMAMOTO AND TAKAO KWAN, 354
- Contact eliminations. XXVIII. F. J. LOPEZ, P. ANDREU, O. BLASSINI, M. PÁEZ, AND H. NOLLER, 233
- Copper surface area by chromatographic technique. B. DVOŘÁK AND J. PAŠEK, 108
- Crystal field interpretation of some activity patterns. REINER KOLLRACK, 314

D

- Dehydration of alcohols. Use of stopped-flow gas chromatography to study, R. M. LANE, B. C. LANE, AND C. S. G. PHILLIPS, 281
- Dehydrocyclodimerization. V. Mechanism. SIGMUND M. CSICSERY, 30
- Dehydrohalogenation of haloethanes on metal sulfates. ISAO MOCHIDA, AKIO KATO, AND TETSURO SEIYAMA, 33
- trans-Dichlorobis(benzonitrile)palladium (II). Dissociation of, MITSURU KUBOTA, B. A. DENECHAUD, P. M. MCKINNEY, T. E. NEEDHAM, AND G. O. SPESSARD, 119
- Disproportionation of CO. I. Over iron, G. D. RENSCHAW, C. ROSCOE, AND P. L. WALKER, JR., 164
- Disproportionation reaction. Mass transfer effects in, A. J. MOFFAT, M. M. JOHNSON, AND ALFRED CLARK, 345

E

- Electron directing effects on the catalytic oxidation of toluenes and xylenes. D. L. TRIMM AND M. IRSHAD, 142
- ESR spectroscopy of cobalt tetraphenylporphine. KEN'ICHI YAMAMOTO AND TAKAO KWAN, 354
- Esterification. Azeotropic, R. TARTARELLI, G. STOPPATO, F. MORELLI, A. LUCCHESI, AND M. GIORGINI, 219
- Ethyl alcohol vapor. Alumina-spinel oxides in decomposition of, D. E. R. BENNETT AND R. A. ROSS, 122
- Ethylene by means of pulse technique. Oxidation of, JUNJI MIKAMI, SHOICHI SATOH, AND HARUO KOBAYASHI, 265
- Ethylene dimerization over nickel oxide-silica. KAZUKO KIMURA, HIDEO A-I, AND ATSUMU OZAKI, 271

Ethylene, propylene and tritium adsorbed on alumina and silica-supported platinum. Radiochemical studies. J. A. ALTHAM AND G. WEBB, 133

F

Ferrous ions in Y zeolite. Reversible oxidation of by Mössbauer study. R. L. GARTEN, W. N. DELGASS, AND M. BOUDART, 90

Formic acid dehydration on TiO₂. G. MUNNERA, 19

G

Gamma-alumina for dehydration. Monte Carlo simulation of activity and selectivity. JOHN E. DABROWSKI, JOHN B. BUTT, AND HARDING BLISS, 297

Gold. Adsorption of oxygen by silver and, W. R. MACDONALD AND K. E. HAYES, 115

Gold. Oxygen transfer between CO and CO₂ on, D. Y. CHA AND G. PARRAVANO, 200

Gold. II. Hydrogen transfer between benzene and cyclohexane. G. PARRAVANO, 320

H

H₂-chemisorption over supported metal catalysts. Influence of water on, N. GIORDANO AND E. MORETTI, 228

Haloethanes on metal sulfates. Dehydrohalogenation of, ISAO MOCHIDA, AKIO KATO, AND TETSURO SEIYAMA, 33

Hexanes. Isomerization of using zeolite catalysts. A. P. BOLTON AND M. A. LANEWALA, 1

Hydrogen and carbon monoxide. Chemisorption on Raney nickel. J. FREEL, S. D. ROBERTSON AND R. B. ANDERSON, 243

Hydrogen by platinized carbon. Slow uptake of, M. BOUDART, A. W. ALDAG AND M. A. VAN-NICE, 46

Hydrogen on cobalt. Chemisorption rates by chromatography, J. C. ADRIAN AND J. M. SMITH, 57

Hydrogen transfer between benzene and cyclohexane on supported gold, G. PARRAVANO, 320

Hydrogenation of cyclopropane on hydrogen covered metal powders. I. H. F. WALLACE AND K. E. HAYES, 77

I

Immiscible liquid. Controlled impregnations via displacement of, S. J. TAUSTER, 358

Impregnations via displacement of an immiscible liquid. S. J. TAUSTER, 358

Infrared identification of surface species on metal oxides. F. BOZON-VERDURAZ, 12

Iron. Disproportionation of CO over, G. D. RENSHAW, C. ROSCOE, AND P. L. WALKER, JR., 164

Iron oxides. Adsorption of nitric oxide on, K. OTTO AND M. SHELEF, 184

Isomerization of hexanes using zeolite catalysts. A. P. BOLTON AND M. A. LANEWALA, 1

K

KERR, OLSON, AND DEMPSEY. Reply to, W. J. AMBS AND W. H. FLANK, 238

Kinetics of oxygen and carbon monoxide on platinum. Sorption. BERNARD J. WOOD, NOBORU ENDOW, AND HENRY WISE, 70

M

Manganese dioxide on the activity of vanadium catalyst for sulfur dioxide oxidation. A. ŠIMEČEK, 83

Mass transfer effects in the disproportionation reaction. A. J. MOFFAT, M. M. JOHNSON, AND ALFRED CLARK, 345

Metal oxides. Oxidation of propylene on mixed, S. HENRY INAMI AND HENRY WISE, 343

Metal sulfates. Dehydrohalogenation of haloethanes on, ISAO MOCHIDA, AKIO KATO, AND TETSURO SEIYAMA, 33

Metallic particles in dispersed catalyst. N. R. AVERY AND J. V. SANDERS, 129

Methanation of CO on a Ni catalyst. PETER SCHOU-BYE, 118

Monte Carlo simulation of a catalytic surface. JOHN E. DABROWSKI, JOHN B. BUTT, AND HARDING BLISS, 297

Mössbauer spectroscopic study of the reversible oxidation of ferrous ions in Y zeolite. R. L. GARTEN, W. N. DELGASS, AND M. BOUDART, 90

N

Ni catalyst. Methanation of CO on a, PETER SCHOU-BYE, 118

Nickel oxide (oxygen chemisorption). Composition and properties. J. DERÉN AND J. STOCH, 249

Nickel oxide-silica. Ethylene dimerization over, KAZUKO KIMURA, HIDEO A-I, AND ATSUMU OZAKI, 271

Nitric oxide on iron oxides. The adsorption of, K. OTTO AND M. SHELEF, 184

O

Oxidation of ethylene by pulse technique. JUNJI MIKAMI, SHOICHI SATOH, AND HARUO KOBAYASHI, 265

Oxidation of ferrous ions in Y zeolite. Mössbauer study of, R. L. GARTEN, W. N. DELGASS, AND M. BOUDART, 90

Oxidation of propylene on mixed metal oxides. S. HENRY INAMI AND HENRY WISE, 343

Oxidation of toluenes and xylenes. Influence of electron directing effects on, D. L. TRIMM AND M. IRSHAD, 142

Oxo chemistry via solid polymer-cobalt carbonyl complexes. A. J. MOFFAT, 193

- Oxygen and carbon monoxide on platinum. Sorption. BERNARD J. WOOD, NOBORU ENDOW, AND HENRY WISE, 70
- Oxygen by silver and gold. Adsorption of, W. R. MACDONALD AND K. E. HAYES, 115
- Oxygenation of cobalt tetraphenylporphine as investigated by ESR spectroscopy. KEN'ICHI YAMAMOTO AND TAKAO KWAN, 354

P

- Palladium (II)-allyl complexes. Mechanism of formation of, R. PIETROPAOLO, P. UGUAGLIATI, T. BOSCHI, B. CROCIANI, AND U. BELLUCO, 338
- Platinized carbon. Slow uptake of hydrogen by, M. BOUDART, A. W. ALDAG, AND M. A. VAN-NICE, 46
- Platinum. Competitive sorption kinetics of oxygen and carbon monoxide on, BERNARD J. WOOD, NOBORU ENDOW, AND HENRY WISE, 70
- Platinum. Radiochemical studies of ethylene, propylene and tritium adsorbed on, J. A. ALTHAM AND G. WEBB, 133
- Polymerization of propylene by the $\text{SiO}_2/\text{TiCl}_4/\text{AlMe}_3$ system. J. MURRAY, M. J. SHARP, AND J. A. HOCKEY, 52
- Propylene. Polymerization of by the $\text{SiO}_2/\text{TiCl}_4/\text{AlMe}_3$ system. J. MURRAY, M. J. SHARP, AND J. A. HOCKEY, 52
- Propylene on mixed metal oxides. Oxidation of, S. HENRY INAMI AND HENRY WISE, 343

R

- Radical cation formation on catalytic materials. P. L. CORIO AND S. SHIH, 126
- Radiochemical studies of chemisorption and catalysis IX. J. A. ALTHAM AND G. WEBB, 133
- Raney nickel. III. Chemisorption of hydrogen and carbon monoxide. J. FREEL, S. D. ROBERTSON, AND R. B. ANDERSON, 243
- Rhenium. Hydrogenation of cyclopropane on, H. F. WALLACE AND K. E. HAYES, 77

S

- Second order reactions in heterogeneous catalysis. R. TARTARELLI, S. CIONI, AND M. CAPOVANI, 212
- Silver and gold. Adsorption of oxygen by, W. R. MACDONALD AND K. E. HAYES, 115
- Sodium oxide and manganese dioxide on the activity of vanadium catalyst for sulfur dioxide oxidation. A. ŠIMEČEK, 83
- Sulfur dioxide oxidation. Addition effect of sodium

- oxide and manganese dioxide on the activity of vanadium catalyst for, A. ŠIMEČEK, 83
- Surface area by chromatographic technique. Copper. B. DVOŘÁK AND J. PAŠEK, 108
- Surface area of the promoted vanadium pentoxide catalyst. K. SHIBATA, J. KITAGAWA, AND T. KIYOURA, 351
- Surface determination. Variation of adsorption apparatus. GEORGI M. BLIZNAKOV, IVAN V. BAKARDJIEV, AND EVA M. GOCHEVA, 260
- Surface reactivity of supported gold. I. Oxygen transfer, D. Y. CHA AND G. PARRAVANO, 200
- Symmetry restricted reaction by transition metal complexes. JOOST MANASSEN, 38

T

- Thermochemical reactions of ammonium-exchanged Y zeolite. A. P. BOLTON AND M. A. LANEWALA, 154
- TiO_2 . Formic acid dehydration on, G. MUNUERA, 19
- Toluenes and xylenes. Influence of electron directing effects on the oxidation of, D. L. TRIMM AND M. IRSHAD, 142
- Transition metal complexes. Importance of the ligand. JOOST MANASSEN, 38

U

- $\text{USb}_3\text{O}_{10}$ and USbO_5 in acrylonitrile catalysts. Crystalline structure of, ROBERT K. GRASSELLI, DEV D. SURESH, AND KERRO KNOX, 356

V

- Vanadium catalyst for sulfur dioxide oxidation. Addition effect. A. ŠIMEČEK, 83
- Vanadium pentoxide catalyst supported on silica gel. Effective surface area of, K. SHIBATA, J. KITAGAWA, AND T. KIYOURA, 351

W

- Water on H_2 -chemisorption over supported metal catalysts. Influence of, N. GIORDANO AND E. MORETTI, 228

Z

- Zeolite (I). Thermochemical reactions of ammonium-exchanged, A. P. BOLTON AND M. A. LANEWALA, 154
- Zeolite (Y). Reversible oxidation of ferrous ions in, by a Mössbauer study. R. L. GARTEN, W. N. DELGASS, AND M. BOUDART, 90
- Y. zeolite. Thermal decomposition of ammonium, JOHN W. WARD, 349
- Zeolite catalysts. Isomerization of hexanes using, A. P. BOLTON AND M. A. LANEWALA, 1