

Subject Index

A

- Acetylacetonates in the autoxidation of hydrocarbons. YOSHIO KAMIYA, 69
- Adsorption of carbon tetrachloride and chloroform by carbon. LEONARD A. JONAS AND W. J. SVIRBELY, 446
- Adsorption of CO, N₂, and Kr on ultrastable Y zeolite. YUN-YANG HUANG, 183
- Adsorption of nitric oxide and carbon monoxide on nickel oxide. H. S. GANDHI AND M. SHELEF, 241
- Alcohols on alumina. Dehydration of XIV. HELMUT KNÖZINGER, HORST BÜHL, AND KAREL KOCH-LOEFL, 57
- Alkylation of benzene, toluene, and cyclohexane. Alkyl transfer steps. G. PARRAVANO, 233
- Alumina. Dehydration of alcohols on, HELMUT KNÖZINGER, HORST BÜHL, AND KAREL KOCH-LOEFL, 57
- Aluminum fluoride. Activity of alpha and beta. B. BEHR, M. A. NOORDELOOS-MAAS, AND C. BOELHOUWER, 77
- Autoxidation of hydrocarbons. Metal acetylacetonates. YOSHIO KAMIYA, 69

B

- Boron phosphate. Gas-phase hydration of ethylene on, M. GIORGINI, P. F. MARCONI, G. MONZANI, R. SIMULA, AND R. TARTARELLI, 521
- Butene isomerization by palladium. L. HOLBROOK AND H. WISE, 315
- t*-Butyl alcohol. Dehydration of by sulfonic acid resin. B. C. GATES, J. S. WISNOUSKAS, AND H. W. HEATH, JR., 320

C

- Carbon monoxide. I. Thorium oxide in the oxidation of, MICHÈLE BREYSSE, BERNARD CLAUDEL, MARCEL PRETTRE, AND JEAN VERON, 106
- Carbon monoxide and chemisorption on iron. Inhibition by nitrogen. YUN-YANG HUANG AND P. H. EMMETT, 101
- Carbon monoxide, hydrogen, and oxygen with supported rhodium. SIEGHARD E. WANKE AND NEIL A. DOUGHARTY, 367
- Carbon monoxide and nitric oxide on nickel oxide. Adsorption of, H. S. GANDHI AND M. SHELEF, 241
- Carbon tetrachloride and chloroform adsorption by carbon. LEONARD A. JONAS AND W. J. SVIRBELY, 446
- Characterization of palladium blacks, I. P. A. SERMON, 460

- Characterization of palladium blacks II. P. A. SERMON, 467
- Chromia-alumina solid solutions in dehydrogenation. CH. MARCILLY AND B. DELMON, 336
- Copper-nickel alloys. Hydrogenolysis and dehydrogenation over, J. H. SINFELT, J. L. CARTER, AND D. J. C. YATES, 283
- Crotyl alcohols to butyraldehyde. Mechanisms of isomerizations. J. ŠIMONÍK AND L. BERÁNEK, 348
- Cumene-cracking over zeolites I. KAZUO TSUTSUMI AND HIROSHI TAKAHASHI, 1
- Cumene-cracking over zeolites II. KAZUO TSUTSUMI, SHIGEO FUJI, AND HIROSHI TAKAHASHI, 8
- Cumene cracking over zeolites. III. KAZUO TSUTSUMI, SHIGEO FUJI, AND HIROSHI TAKAHASHI, 146
- 1,4-cyclohexadiene. Hydrogen transfer by tri-carbonyl chromium complexes. E. N. FRANKEL, 358
- Cyclopentane and deuterium on nickel and nickel-copper. V. PONEC AND W. M. H. SACHTLER, 250
- Cyclopropane. Kinetics and mechanism of hydrogenation of, T. S. SRIDHAR AND D. M. RUTHVEN, 153

D

- Dehydration of alcohols on alumina. XIV. HELMUT KNÖZINGER, HORST BÜHL, AND KAREL KOCH-LOEFL, 57
- Dehydration of *t*-butyl alcohol by sulfonic acid resin. B. C. GATES, J. S. WISNOUSKAS, AND H. W. HEATH, JR., 320
- Dehydroaromatization. Oxidative. II. TETSURO SEIYAMA, MAKOTO EGASHIRA, TERUHISA SAKAMOTO, AND ISAO ASO, 76
- Dehydrocyclization over platinum and palladium. J. M. MULLER AND F. G. GAULT, 361
- Dehydrogenation. Activity of chromia-alumina solid solutions. CH. MARCILLY AND B. DELMON, 336
- Dehydrogenation and hydrogenolysis over copper-nickel. J. H. SINFELT, J. L. CARTER AND D. J. C. YATES, 283
- Dicyclopentadienylnickel. Kinetics of deposition of nickel from, C. M. PLEASS AND D. G. SCHIMMEL, 424
- Diffusional effect. Site-localized. A. J. MOFFAT, 170
- Dimethylcyclohexanes on palladium. Epimerization and exchange. J. K. A. CLARKE AND A. O. CINNEIDE, 181
- Diolefin reactions by transition metal-Schiff base complexes. CHING-YONG WU AND HAROLD E. SWIFT, 510

Disproportionation by metal-metal bonded complexes. W. R. KROLL AND G. DOYLE, 356

E

Electron microscopy. Raney Nickel, VI. S. D. ROBERTSON, J. FREEL, AND R. B. ANDERSON, 130

Epimerization and exchange between deuterium and dimethylcyclohexanes on palladium. J. K. A. CLARKE AND A. O. CINNEIDE, 181

EPR on titanium dioxide and magnesium oxide. M. CHE, C. NACCACHE, AND B. IMELIK, 328

Ethane over nickel. Hydrogenolysis mechanism. L. GUCZI, B. S. GUDKOV, AND P. TÉTÉNYI, 187

Ether formation from alcohols over alumina. V. R. PADMANABHAN AND F. J. EASTBURN, 71

Ethylene. Exo-electron emission from silver during oxidation of, NORIO SATO AND MASAHIRO SEO, 224

Ethylene on boron phosphate. Gas-phase hydration of, M. GIORGINI, P. F. MARCONI, G. MONZANI, R. SIMULA, AND R. TARTARELLI, 521

Ethylene on supported platinum. Hydrogenation of, J. C. SCHLATTER AND M. BOUDART, 482

Exo-electron emission from silver. NORIO SATO AND MASAHIRO SEO, 224

H

Heats of adsorption of water on alumina. B. A. HENDRIKSEN, D. R. PEARCE, AND R. RUDHAM, 82

1,4-hexadiene. Hydrogen transfer by tricarbonyl chromium complexes. E. N. FRANKEL, 358

n-Hexane over platinum. Effect of metal particle size. F. M. DAUTZENBERG AND J. C. PLATTEEUW, 364

Hexanes. Isomerization of labeled on platinum-alumina. C. COROLLEUR, S. COROLLEUR, AND F. G. GAULT, 385

Homogeneous hydrogenation of methyl linoleate. P. ABLEY AND F. J. McQUILLIN, 536

Homogeneous hydrogenation with a soluble nickel borohydride. A. G. HINZE AND D. J. FROST, 541

Hydration of ethylene on boron phosphate. M. GIORGINI, P. F. MARCONI, G. MONZANI, R. SIMULA, AND R. TARTARELLI, 521

Hydrazine decomposition over iridium. J. P. CONTROU AND G. PANNETIER, 434

Hydrocarbons. Metal acetylacetonates in the autoxidation of, YOSHIO KAMIYA, 69

Hydrocarbons chemisorbed on palladium. Reversible uptake of hydrogen by, N. R. AVERY, 92

Hydrogen and oxygen chemisorption on silica-supported platinum. GEOFFREY R. WILSON AND W. KEITH HALL, 306

Hydrogen by hydrocarbons chemisorbed on palladium. Reversible uptake. N. R. AVERY, 92

Hydrogen held by solids. XIX. H₂ and O₂ chemi-

sorption on silica-supported platinum. GEOFFREY R. WILSON AND W. KEITH HALL, 306

Hydrogen-oxygen. Stability of noble metal catalysts for, W. E. ARMSTRONG, T. J. JENNINGS, AND H. H. VOGEL, 502

Hydrogen-oxygen at 78°K. Initiation of, T. J. JENNINGS, H. H. VOGEL, AND W. E. ARMSTRONG, 493

Hydrogen, oxygen and carbon monoxide with supported rhodium. SIEGHARD E. WANKE AND NEIL A. DOUGHARTY, 367

Hydrogen-oxygen reaction. Stability of noble metal catalysts for, W. E. ARMSTRONG, T. J. JENNINGS, AND H. H. VOGEL, 502

Hydrogen transfer by tricarbonyl chromium complexes. E. N. FRANKEL, 358

Hydrogenation of cyclopropane. Kinetics and mechanism. T. S. SRIDHAR AND D. M. RUTHVEN, 153

Hydrogenation of ethylene on platinum. J. C. SCHLATTER AND M. BOUDART, 482

Hydrogenation of methyl linoleate. P. ABLEY AND F. J. McQUILLIN, 536

Hydrogenation of nitrogen on iron synthetic ammonia catalyst. NOBUTSUNE TAKEZAWA, 417

Hydrogenation with a soluble nickel borohydride. A. G. HINZE AND D. J. FROST, 541

Hydrogenolysis and dehydrogenation over copper-nickel. J. H. SINFELT, J. L. CARTER, AND D. J. C. YATES, 283

Hydrogenolysis of ethane over nickel. Mechanism. L. GUCZI, B. S. GUDKOV, AND P. TÉTÉNYI, 187

Hydrolysis of organic fluorides. HOWELL R. CLARK AND MARK M. JONES, 472

Hydroxyl nests in acid-extracted mordenites. DILEEP THAKUR AND SOL W. WELLER, 543

I

Inhibition by nitrogen of carbon monoxide chemisorption on iron. YUN-YANG HUANG AND P. H. EMMETT, 101

Iridium. Hydrazine decomposition over, J. P. CONTROU AND G. PANNETIER, 434

Iron. Hydrogenation of nitrogen adsorbed on, NOBUTSUNE TAKEZAWA, 417

Iron. Inhibition by nitrogen of carbon monoxide chemisorption. YUN-YANG HUANG AND P. H. EMMETT, 101

Iron-alumina. Reduction of SO₂ with CO over, S. E. KHALAFALLA AND L. A. HAAS, 121

Isomerization of crotyl alcohols to butyraldehyde. Mechanisms. J. SIMONIK AND L. BERÁNEK, 348

Isomerization of labeled hexanes on platinum-alumina. C. COROLLEUR, S. COROLLEUR, AND F. G. GAULT, 385

Isomerization of *n*-hexane over platinum. Metal particle size. F. M. DAUTZENBERG AND J. C. PLATTEEUW, 364

K

- Kinetics and mechanism of cyclopropane hydrogenation. T. S. SRIDHAR AND D. M. RUTHVEN, 153
- Kinetics of carbon tetrachloride and chloroform adsorption. LEONARD A. JONAS AND W. J. SVIRBELY, 446
- Kinetics of nickel deposition from solutions. C. M. PLEASS AND D. G. SCHIMMEL, 424
- Kinetics of olefin hydrogenation over platinum. STEIN KOLBOE, 40

M

- Magnesium oxide and titanium dioxide. EPR. M. CHE, C. NACCACHE, AND B. IMELIK, 328
- Mechanism of catalysis of ethane over nickel. L. GUCZI, B. S. GUDKOV, AND P. TÉTÉNYI, 187
- Mechanism of hydrogenolysis and isomerization of hydrocarbons on metals. VI. C. COROLLEUR, S. COROLLEUR, AND F. G. GAULT, 385
- Mechanisms of hydrogenolysis and isomerization of hydrocarbons on metals. VII. C. COROLLEUR, D. TOMANOVA, AND F. G. GAULT, 401
- Metal macrocyclic amine complexes. Activity of, L. H. GALE, D. C. OLSON, AND J. VASILEVSKIS, 548
- Metal-metal bonded complexes. Liquid phase disproportionation by, W. R. KROLL AND G. DOYLE, 356
- Metal particle size on isomerization of *n*-hexane over platinum. F. M. DAUTZENBERG AND J. C. PLATTEEUW, 364
- Methyl linoleate. Homogeneous hydrogenation of, P. ABLEY AND F. J. McQUILLIN, 536
- Molybdenum hexacarbonyl. Disproportionation of propylene on supported, E. S. DAVIE, D. A. WHAN, AND C. KEMBALL, 272
- Mordenites. Hydroxyl nests in acid-extracted, DILEEP THAKUR AND SOL W. WELLER, 543

N

- Nickel alumina. Sintering. A. WILLIAMS, G. A. BUTLER, AND J. HAMMONDS, 352
- Nickel and nickel-copper. Cyclopentane and deuterium on, V. PONEC AND W. M. H. SACTLER, 250
- Nickel and rhodium complexes. Homogeneous hydrogenation of methyl linoleate by, P. ABLEY AND F. J. McQUILLIN, 536
- Nickel borohydride. Homogeneous hydrogenation with, A. G. HINZE AND D. J. FROST, 541
- Nickel deposition from solution of dicyclopentadienylnickel. C. M. PLEASS AND D. G. SCHIMMEL, 424
- Nickel oxide. Adsorption of nitric oxide and carbon monoxide on, H. S. GANDHI AND M. SHELEF, 241

- NO control. Low temperature approach. A. LAWSON, 297
- Nitric oxide and carbon monoxide on nickel oxide. Adsorption of, H. S. GANDHI AND M. SHELEF, 241
- Nitrogen on iron. Hydrogenation. NOBUTSUNE TAKEZAWA, 417

O

- Olefin hydrogenation over platinum. Kinetics of, STEIN KOLBOE, 40
- Olefins over palladium in water. Oxidation of, TETSURO SEIYAMA, NOBORU YAMAZOE, JUN-ICHI HOJO, AND MASANORI HAYAKAWA, 173
- Oxidation activity of metal macrocyclic amine complexes. L. H. GALE, D. C. OLSON, AND J. VASILEVSKIS, 548
- Oxidation of ethylene. Exo-electron emission from silver. NORIO SATE AND MASAHIRO SEO, 224
- Oxidation of olefins over palladium in water. TETSURO SEIYAMA, NOBORU YAMAZOE, JUN-ICHI HOJO, AND MASANORI HAYAKAWA, 173
- Oxidation of propylene I. CHELLIAH DANIEL AND GEORGE W. KEULKS, 529
- Oxidative dehydroaromatization. II. TETSURO SEIYAMA, MAKOTO EGASHIRA, TERUHISA SAKAMOTO, AND ISAO ASO, 76
- Oxygen and hydrogen chemisorption on silica-supported platinum. GEOFFREY R. WILSON AND W. KEITH HALL, 306
- Oxygen, hydrogen, and carbon monoxide with supported rhodium. SIEGHARD E. WANKE AND NEIL A. DOUGHARTY, 367

P

- Palladium. Butene isomerization over, L. HOLBROOK AND H. WISE, 315
- Palladium. Epimerization and exchange between deuterium and dimethylcyclohexanes. J. K. A. CLARKE AND A. O. CINNEIDE, 181
- Palladium. Hydrogen pretreatment and surface area. P. A. SERMON, 460
- Palladium. Reversible uptake of hydrogen by hydrocarbons chemisorbed on, N. R. AVERY, 92
- Palladium and platinum. Mechanisms of dehydrocyclization over, J. M. MULLER AND F. G. GAULT, 361
- Palladium in water. Oxidation of olefins over, TETSURO SEIYAMA, NOBORU YAMAZOE, JUN-ICHI HOJO, AND MASANORI HAYAKAWA, 173
- Pd-Rh films. Effect of preparation. R. L. MOSS AND H. R. GIBBENS, 48
- Platinum. H₂ and O₂ adsorption on silica-supported, GEOFFREY R. WILSON AND W. KEITH HALL, 306
- Platinum. Kinetics of olefin hydrogenation over, STEIN KOLBOE, 40
- Platinum. Metal particle size on the isomerization

- of *n*-hexane. F. M. DAUTZENBERG AND J. C. PLATTEEUW, 364
- Platinum and palladium. Mechanisms of dehydrocyclization over, J. M. MULLER AND F. G. GAULT, 361
- Poisoning of steam hydrocarbon gasification. F. MOSELEY, R. S. STEPHENS, K. D. STEWART, AND J. WOOD, 18
- Propylene. Oxidation of, CHELLIAH DANIEL AND GEORGE W. KEULKS, 529
- Propylene disproportionation of molybdenum hexacarbonyl. E. S. DAVIE, D. A. WHAN, AND C. KEMBALL, 272
- R**
- Rate coefficients from pulsed microcatalytic reactors. KAMEL MAKER AND ROBERT P. MERRILL, 546
- Raney nickel. VI. S. D. ROBERTSON, J. FREEL, AND R. B. ANDERSON, 130
- Reactions of alcohols V. over nickel and other metals. JÖRG HENSEN AND HERMAN PINES, 211
- Reactions of alcohols. VI. Alkanols dehydration over nickel. Support effect. HERMAN PINES, JÖRG HENSEL, AND JOSEF ŠIMONIK, 206
- Reactions of alcohols VII. Alcohols dehydration over nickel. Kinetic studies. JOSEF ŠIMONIK AND HERMAN PINES, 197
- Reactions of alcohols VIII. Synthesis of mixed ethers. HERMAN PINES AND JOSEF ŠIMONIK, 220
- Resin. Dehydration of *t*-butyl alcohol by sulfonic acid. B. C. GATES, J. S. WISNOUSKAS, AND H. W. HEATH, JR., 320
- Rhodium. Interaction of hydrogen, oxygen, and carbon monoxide with supported, SIEGHARD E. WANKE AND NEIL A. DOUGHARTY, 367
- S**
- Schiff base-metal complexes. Diolefin reactions. CHING-YONG WU AND HAROLD E. SWIFT, 510
- Silver. Exo-electron emission during ethylene oxidation. NORIO SATO AND MASAHIRO SEO, 224
- Steam hydrocarbon gasification. Poisoning of, F. MOSELEY, R. W. STEPHENS, K. D. STEWART, AND J. WOOD, 18
- Sulfonic acid resin. Dehydration of *t*-butyl alcohol by, B. C. GATES, J. S. WISNOUSKAS, AND H. W. HEATH, JR., 320
- Sulfur-dioxide reduction with CO on alumina. S. E. KHALAFALLA AND L. A. HAAS, 115
- Sulfur-dioxide reduction with CO on iron-alumina. S. E. KHALAFALLA AND L. A. HAAS, 121
- Surface area or particle size. Methods for estimating, P. A. SERMON, 467
- T**
- Tellurium-loaded zeolites. III. D. H. OLSON, R. J. MIKOVSKY, G. J. SHIPMAN, AND E. DEMPSEY, 161
- Thorium oxide in the oxidation of carbon monoxide. I. MICHÈLE BREYSSE, BERNARD CLAUDEL, MARCEL PRETTRE, AND JEAN VERON, 106
- Titanium dioxide and magnesium oxide. EPR. M. CHE, C. NACCACHE, AND B. IMELIK, 328
- Tricarbonyl chromium complexes. Hydrogen transfer by, E. N. FRANKEL, 358
- W**
- Water. Heats of adsorption of on alumina. B. A. HENDRIKSEN, D. R. PEARCE, AND R. RUDHAM, 82
- Z**
- Zeolite (Y) adsorption of CO, N₂, and Kr on, YUN-YANG HUANG, 183
- Zeolites-IIIY. Properties and activity of, K. M. WANG AND J. H. LUNSFORD, 262
- Zeolites. Cumene-cracking over I., KAZUO TSUTSUMI AND HIROSHI TAKAHASHI, 1
- Zeolites. Cumene-cracking over II. KAZUO TSUTSUMI, SHIGEO FUJI, AND HIROSHI TAKAHASHI, 146
- Zeolites. Tellurium-loaded III. D. H. OLSON, R. J. MIKOVSKY, G. J. SHIPMAN, AND E. DEMPSEY, 161