

Subject Index

A

- Acetaldehyde on silica and silica-supported nickel. Acetone and. Infrared spectroscopic studies of adsorption and catalysis. R. P. YOUNG AND N. SHEPPARD, 223
- Acetone and acetaldehyde on silica and silica-supported nickel. Infrared spectroscopic studies of adsorption and catalysis. R. P. YOUNG AND N. SHEPPARD, 223
- Acid-base properties of magnesium oxide surface. ST. MALINOWSKI, S. SZCZEPANSKA, AND J. SLOCZYNSKI, 68
- Acid catalysis. Dealkylation and isomerization reactions on various solids. ISAO MOCHIA AND YUKIO YONEDA, 393
- Acid-catalyzed reactions. IV. Tracer studies of. JOE W. HIGHTOWER, H. R. GERBERICH, AND W. KEITH HALL, 57
- Acid-type catalysis, sulfonated and phosphonated polyphenyl. J. MANASSEN AND SH. KHALIF, 110
- Acidity of fluorinated aluminas. R. COVINI, V. FATTORE, AND N. GIORDANO, 126
- Adsorbed carbon dioxide on active carbon. The surface flow of. JAN POPIELAWSKI, 263
- Adsorption of hydrogen. Gas chromatographic determination of reversible. ATSUMU OZAKI, FUMIO NOZAKI, KEN-ICHI MARUYA, AND SADAOGASAWARA, 234
- Adsorption of krypton and of nitrogen on graphitized carbon. J. H. DE BOER, J. C. P. BROEKHOFF, B. G. LINSEN, AND A. L. MEIJER, 135
- Adsorptive capacity. Effect of surface curvature of semiconductors upon their, O. PESHEV AND G. BLIZNAKOV, 18
- Alcohol on alumina. Kinetics of the dehydration of. J. H. DE BOER, R. B. FAHIM, B. G. LINSEN, W. J. VISSEREN, AND W. F. N. M. DE VLESSCHAUWER, 163
- Aliphatic hydrocarbons at a platinum surface. The mechanism of isomerization of. J. R. ANDERSON AND N. R. AVERY, 315
- Alkali metal poisons in the elucidation of cracking catalyzed by silica-alumina. Use of. R. W. MAATMAN, D. L. LEENSTRA, A. LEENSTRA, R. L. BLANKESPOOR, AND D. N. RUBINGH, 1
- Alkylbenzenes on cracking catalysts. Dealkylation of. ISAO MOCHIDA AND YUKIO YONEDA, 386
- Alkylpyridines. Catalytic dehydrogenation of. C. R. ADAMS AND J. FALBE, 173
- Alumina by direct observation. A study of the surface area and structure of activated. J. H. BOWEN, R. BOWREY, AND A. S. MALIN, 209
- Alumina. Catalytic carbon monoxide oxidation on α -irradiated. R. COEKELBERGS, R. COLLIN, A.

CRUCQ, J. DECOT, L. DEGOLS, AND L. TIMMERMANN, 85

Alumina, fluorided alumina, and silica-alumina. Rate constants for *n*-butene interconversion reactions over. JOE. W. HIGHTOWER, H. R. GERBERICH, AND W. KEITH HALL, 57

Alumina. Kinetics of the dehydration of alcohol on. J. H. DE BOER, R. B. FAHIM, B. G. LINSEN, W. J. VISSEREN, AND W. F. N. M. DE VLESSCHAUWER, 163

Alumina, and silica-alumina catalysts. Hydroxyl groups on silica. MASO SATO, TATSUMI KANBAYASHI, NORIO KOBAYASHI, AND YOSHITSUGU SHIMA, 342

Aluminas. Acidity of fluorinated. R. COVINI, V. FATTORE, AND N. GIORDANO, 126

Ammonia. The influence of oxygen on the catalytic reduction of nitric oxide by. M. MARKVART AND VL. POUR, 279

Author Index, 399

B

Bismuth molybdate catalysts. III. The catalytic oxidation of 1-butene over. PH. A. BATIST, C. J. KAPTEIJNS, B. G. LIPPENS, AND G. C. A. SCHUIT, 33

Butadiene. Kinetic study on the mechanism of the catalytic conversion of ethanol to. S. K. BHATTACHARYYA AND S. K. SANYAL, 152

n-Butene interconversion reactions over alumina, fluorided alumina, and silica-alumina. Rate constants for. JOE W. HIGHTOWER, H. R. GERBERICH, AND W. KEITH HALL, 57

1-Butene over bismuth molybdate catalysts. III. The catalytic oxidation of. PH. A. BATIST, C. J. KAPTEIJNS, B. G. LIPPENS, AND G. C. A. SCHUIT, 33

C

Carbon. The adsorption of krypton and of nitrogen on graphitized. J. H. DE BOER, J. C. P. BROEKHOFF, B. G. LINSEN, AND A. L. MEIJER, 135

Carbon. The surface flow of adsorbed carbon dioxide on active. JAN POPIELAWSKI, 263

Carbon dioxide on active carbon. The surface flow of adsorbed. JAN POPIELAWSKI, 263

Carbon dioxide on zinc oxide. The heats of chemisorption of. O. LEVY AND M. STEINBERG, 159

Carbon monoxide oxidation on α -irradiated alumina. Catalytic. R. COEKELBERGS, R. COLLIN, A. CRUCQ, J. DECOT, L. DEGOLS, AND L. TIMMERMANN, 85

- Chemisorption of carbon dioxide on zinc oxide. The heats of. O. LEVY AND M. STEINBERG, 159
- Chromium trioxide on silica-alumina support. The photoreduction of. YEHUDA HAAS, CHIYA EDEN, AND HANS FEILCHENFELD, 304
- CO chemisorption on platinum/silica catalysts. Crystallite size and. T. A. DORLING AND R. L. MOSS, 378
- Cobalt oxide and cobalt magnesium oxide. The catalytic decomposition of nitrous oxide on single crystals of. MILTON L. VOLPE AND JOHN F. REDDY, 76
- Cobalt oxide-molybdenum oxide-alumina. Reactions of olefins on. C. P. C. BRADSHAW, E. J. HOWMAN, AND L. TURNER, 269
- Cobalt-oxide-on-carbon catalysts. Olefin dimerization over. ROBERT G. SCHULTZ, 286
- Copper-nickel alloy films. Surface composition of equilibrated. P. VAN DER PLANK AND W. M. H. SACHTLER, 300
- Copper surface area in catalysts. The determination of the specific. TH. J. OSINGA, B. G. LINSEN, AND W. P. VAN BEEK, 277
- Cracking catalysts. Dealkylation of alkylbenzenes on. ISAO MOCHIDA AND YUKIO YONEDA, 386
- Cracking catalyzed by silica-alumina. Use of alkali metal poisons in the. R. W. MAATMAN, D. L. LEENSTRA, A. LEENSTRA, R. L. BLANKESPOOR, AND D. N. RUBINGH, 1
- Crystallite size and CO chemisorption on platinum/silica catalysts. T. A. DORLING AND R. L. MOSS, 378
- Cumene hydrodealkylation. Acidity of fluorinated aluminas, and their catalytic activity in. R. COVINI, V. FATTORE, AND N. GIORDANO, 126
- Cuprous iodide catalyst. Effect of solid-state properties on catalytic selectivity decomposition of isopropyl iodide on a. HANS U. D. WIESDEN-DANGER, 283
- D**
- Dealkylation of alkylbenzenes on cracking catalysts. ISAO MOCHIDA AND YUKIO YONEDA, 386
- Dealkylation, fragmentation, and C_5 dehydrocyclization of 3-phenylpentane on silica-alumina catalyst. CHR. DIMITROV AND P. IGNATIEV, 103
- Dealkylation and isomerization reactions on various solid acid catalysis. ISAO MOCHIDA AND YUKIO YONEDA, 393
- Dehydration of alcohol on alumina. Kinetics of the. J. H. DE BOER, R. B. FAHIM, B. G. LINSEN, W. J. VISSEREN, AND W. F. N. M. DE VLESSCHAUWER, 163
- Dehydration of 2-propanol. Kinetics of the catalytic. L. DE MOURGUES, F. PEYRON, Y. TRAMBOUZE, AND M. PRETTE, 117
- Dehydrocyclization of 3-phenylpentane on silica-alumina catalyst. Dealkylation, fragmentation, and C_5 . CHR. DIMITROV AND P. IGNATIEV, 103
- Dehydrogenation of alkylpyridines. Catalytic. C. R. ADAMS AND J. FALBE, 173
- Density measurements of low temperatures. B. MOSES, 290
- Diffusional mass transport of nonadsorbed gases within porous structures. RICHARD N. FOSTER, JOHN B. BUTT, AND HARDING BLISS, 191
- DPPH and the application of the technique to active surface area studies. A novel catalytic method for the preparation of. J. L. GARNETT, A. T. T. OEI, AND W. A. SOLICH-BAUMGARTNER, 305
- E**
- Effusion method applied to oxygen atoms recombination. J. W. MAY AND J. W. LINNETT, 324
- Ethanol to butadiene. Kinetic study on the mechanism of the catalytic conversion of. S. K. BHATTACHARYYA AND S. K. SANYAL, 152
- Ethylene. Oligomerization of. ROBERT G. SCHULTZ, 286
- Ethylene on nickel-copper and nickel-gold alloys. The catalytic hydrogenation of. J. S. CAMPBELL AND P. H. EMMETT, 252
- Ethylene over the oxides of the first series of transition elements. Activity pattern in the hydrogenation of. D. L. HARRISON, D. NICHOLLS, AND H. STEINER, 359
- F**
- Fluorinated aluminas. Acidity of. R. COVINI, V. FATTORE, AND N. GIORDANO, 126
- Fragmentation and C_5 dehydrocyclization of 3-phenylpentane on silica-alumina catalyst. Dealkylation. CHR. DIMITROV AND P. IGNATIEV, 103
- Free energy relationships in heterogeneous catalysis. Linear, ISAO MOCHIDA, AND YUKIO YONEDA, 386, 393
- G**
- Gas chromatographic determination of reversible adsorption of hydrogen. ATSUMU OZAKI, FUMIO NOZAKI, KEN-ICHI MARUYA, AND SADAQ OGASAWARA, 234
- Germanium-oxygen system. Sticking probabilities by an effusive beam technique. R. J. MADIX AND M. BOUDART, 240
- H**
- Halsey form correlation to nitrogen adsorption on metal and supported metal substrates. Application of the. JOHN B. BUTT, 281
- Heats of chemisorption of carbon dioxide on zinc oxide. O. LEVY AND M. STEINBERG, 159
- Hydrocarbon oxidation. Regularity in the catalytic properties of metal oxides in. YOSHIHIKO MORO-

- OKA, YUTAKA MORIKAWA, AND ATSUMU OZAKI
23
- Hydrocarbons at a platinum surface. The mechanism of isomerization of aliphatic. J. R. ANDERSON AND N. R. AVERY, 315
- Hydrodealkylation. Acidity of fluorinated aluminas, and their catalytic activity in cumene. R. COVINI, V. FATTORE, AND N. GIORDANO, 126
- Hydrogenation of ethylene on nickel-copper and nickel-gold alloys. The catalytic. J. S. CAMPBELL AND P. H. EMMETT, 252
- Hydrogenation of ethylene over the oxides of the first series of transition elements. Activity pattern in the. D. L. HARRISON, D. NICHOLLS, AND H. STEINER, 359
- Hydrogenation of 2-methyl-cyclopentanone on metal catalysts. D. CORNET AND F. G. GAULT, 140
- Hydrogenation using platinum-tin complexes. Homogeneous. H. VAN BEKKUM, J. VAN GOGH, AND G. VAN MINNEN-PATHUIS, 292
- Hydrogenation with platinum-tin chloride complexes as catalysts. Homogeneous. L. P. VAN'T HOF AND B. G. LINSEN, 295
- Hydroxyl groups on silica, alumina, and silica-alumina catalysts. MASAO SATO, TATSUMI KANBAYASHI, NORIO KOBAYASHI, AND YOSHITOSUJI SHIMA, 342
- Infrared spectroscopic studies of adsorption and catalysis: acetone and acetaldehyde on silica and silica-supported nickel. R. P. YOUNG AND N. SHEPPARD, 223
- Iridium and palladium filaments. Kinetics of the low pressure nitrous oxide decomposition on. JOHN P. REDMOND, 297
- Isomerization of aliphatic hydrocarbons at a platinum surface. The mechanism of. J. R. ANDERSON AND N. R. AVERY, 315
- Isomerization of 1-pentene by a platinum(II)-tin(II) complex. G. C. BOND AND MARGARET HELLMER, 217
- Isomerization reactions on various solid acid catalysts. Dealkylation and. ISAO MOCHIDA AND YUKIO YONEDA, 393
- Isopropyl iodide on a cuprous iodide catalyst. Effect of solid-state properties on catalytic selectivity decomposition of. HANS U. D. WIESENDANGER, 283
- K**
- Kinetic study on the mechanism of the catalytic conversion of ethanol to butadiene. S. K. BHATTACHARYYA AND S. K. SANYAL, 152
- Kinetics and Catalysis, abstracts, Academy of Sciences, U.S.S.R. Vol. 7 Number 2, March-April 1966, 96
- Kinetics and Catalysis, abstracts, Academy of Sciences, U.S.S.R., Vol. 7 Number 3, May-June 1966, 200
- Kinetics and Catalysis, abstracts, Academy of Sciences, U.S.S.R., Vol. 7 Number 4, July-August 1966, 308
- Kinetics of the catalytic dehydration of 2-propanol. L. DE MOURGES, F. PEYRON, Y. TRAMBOUZE, AND M. PRETTRE, 117
- Kinetics of the dehydration of alcohol on alumina. J. H. DE BOER, R. B. FAHIM, B. G. LINSEN, W. J. VISSEREN, AND W. F. N. M. DE VLESSCHAUWER, 163
- Kinetics of the low pressure nitrous oxide decomposition on iridium and palladium filaments. JOHN P. REDMOND, 297
- Krypton and of nitrogen on graphitized carbon. Adsorption of. J. H. DE BOER, J. C. P. BROEKHOFF, B. G. LINSEN, AND A. L. MEIJER, 135
- M**
- Magnesium oxide surface. Acid-base properties of. ST. MALINOWSKI, S. SZCZEPANSKA, AND J. SLOCZYNSKI, 68
- Magnetite catalysts. The distribution of promoters in. M. E. DRY AND L. C. FERREIRA, 352
- Mass transport of nonadsorbed gases within porous structures. Diffusional. RICHARD N. FOSTER, JOHN B. BUTT, AND HARDING BLISS, 179, 191
- Mechanism of isomerization of aliphatic hydrocarbons at a platinum surface. J. R. ANDERSON AND N. R. AVERY, 315
- Metal oxides in hydrocarbon oxidation. Regularity in the catalytic properties of. YOSHIIHIKO MORO-OKA, YUTAKA MORIKAWA, AND ATSUMU OZAKI, 23
- 2-Methyl-cyclopentanone on metal catalysts. Hydrogenation of. D. CORNET AND F. G. GAULT, 140
- Molybdate catalysts. III. The catalytic oxidation of 1-butene over bismuth. PH. A. BATIST, C. J. KAPTEIJNS, B. G. LIPPENS, AND G. C. A. SCHUIT, 33
- N**
- Nickel. Acetone and acetaldehyde on silica and silica-supported. Infrared spectroscopic studies of adsorption and catalysis. R. P. YOUNG AND N. SHEPPARD, 223
- Nickel catalyst. The reversible adsorption of hydrogen over a. ATSUMU OZAKI, FUMIO NOZAKI, KEN-ICHI MARUYA, AND SADAQ OGASAWARA, 234
- Nickel-copper and nickel-gold alloys. The catalytic hydrogenation of ethylene on. J. S. CAMPBELL AND P. H. EMMETT, 252
- Nickel oxide by platinum and palladium. Activation

- of supported. E. J. NOWAK AND R. M. KOROS, 50
- Nitric oxide by ammonia. The influence of oxygen on the catalytic reduction of. M. MARKVART AND VL. POUR, 279
- Nitrogen adsorption on metal and supported metal substrates. Application of the Halsey form correlation to. JOHN B. BUTT, 281
- Nitrogen on graphitized carbon. The adsorption of krypton and of. J. H. DE BOER, J. C. P. BROEKHOFF, B. G. LINSEN, AND A. L. MEIJER, 135
- Nitrous oxide decomposition on iridium and palladium filaments. Kinetics of the low pressure. JOHN P. REDMOND, 297
- Nitrous oxide on single crystals of cobalt oxide and cobalt magnesium oxide. The catalytic decomposition of. MILTON L. VOLPE AND JOHN F. REDDY, 76
- Nobel metal blacks by wet hydrogen reduction. Preparation of supported. HAROLD I. ZELIGER, 198
-
- Olefin dimerization over cobalt-oxide-on-carbon catalysts. ROBERT G. SCHULTZ, 286
- Olefin dismutation on cobalt oxide-molybdenum oxide-alumina. C. P. C. BRADSHAW, E. J. HOWMAN, AND L. TURNER, 269
- Oligomerization of ethylene. ROBERT G. SCHULTZ, 286
- Oxidation. Regularity in the catalytic properties of metal oxides in hydrocarbon. YOSHIHIKO MORO-OKA, YUTAKA MORIKAWA, AND ATSUMU OZAKI, 23
- Oxidation of 1-butene over bismuth molybdate catalysts. III. The catalytic. PH. A. BATIST, C. J. KAPTEIJNS, B. G. LIPPENS, AND G. C. A. SCHUIT, 33
- Oxide layer on metal. Dependence on the catalytic activity on thickness of. JERZY DERĘN AND BARBARA RUSSER, 396
- Oxides of the first series of transition elements. Activity pattern in the hydrogenation of ethylene over the. D. L. HARRISON, D. NICHOLLS, AND H. STEINER, 359
- Oxygen atoms recombination. An effusion method applied to. J. W. MAY AND J. W. LINNETT, 324
- Oxygen on the catalytic reduction of nitric oxide by ammonia. The influence of. M. MARKVART AND VL. POUR, 279
- P
- Palladium. Activation of supported nickel oxide by platinum and. E. J. NOWAK AND R. M. KOROS, 50
- Palladium filaments. Kinetics of the low pressure nitrous oxide decomposition on iridium and. JOHN P. REDMOND, 297
- Palladium-silver alloy films. The parahydrogen conversion on. D. R. ROSSINGTON AND R. B. RUNK, 365
- Parahydrogen conversion on palladium-silver alloy films. D. R. ROSSINGTON AND R. B. RUNK, 365
- 1-Pentene by a platinum(II)-tin(II) complex. Isomerization of. G. C. BOND AND MARGARET HELLIER, 217
- 3-Phenylpentane on silica-alumina catalyst. Dealkylation, fragmentation, and C₅ dehydrocyclization of. CHR. DIMITROV AND P. IGNATIEV, 103
- Phosphonated polyphenyl. Acid-type catalysis, sulfonated and. J. MANASSEN AND SH. KHALIF, 110
- Photoreduction of chromium trioxide on silica-alumina support. YEHUDA HAAS, CHIYA EDEN AND HANS FEILCHENFELD, 304
- Platinum and palladium. Activation of supported nickel oxide by. E. J. NOWAK AND R. M. KOROS, 50
- Platinum/silica catalysts. Crystallite size and CO chemisorption on. T. A. DORLING AND R. L. MOSS, 378
- Platinum surface. The mechanism of isomerization of aliphatic hydrocarbons at a. J. R. ANDERSON AND N. R. AVERY, 315
- Platinum-tin chloride complexes as catalysts. Homogeneous hydrogenation with. L. P. VAN'T HOF AND B. G. LINSEN, 295
- Platinum(II)-tin(II) complex. Isomerization of 1-pentene by a. G. C. BOND AND MARGARET HELLIER, 217
- Platinum-tin complexes. Homogeneous hydrogenation using. H. VAN BEKKUM, J. VAN GOGH, AND G. VAN MINNEN-PATHUIS, 292
- Polymers. Organic. Correlation between their structure and catalytic activity in heterogeneous systems. J. MANASSEN AND SH. KHALIF, 110
- Polyphenyl. Acid-type catalysis, sulfonated and phosphonated. J. Manassen and Sh. Khalif, 110
- Pore systems in catalysis. J. H. DE BOER, J. C. P. BROEKHOFF, B. G. LINSEN, AND A. L. MEIJER, 135
- Porous structures. Diffusional mass transport of nonadsorbed gases within. RICHARD N. FOSTER, JOHN B. BUTT, AND HARDING BLISS, 179, 191
- 2-Propanol. Kinetics of the catalytic dehydration of. L. DE MOURGUES, F. PEYRON, Y. TRAMBOUZE, AND M. PRETTRE, 117
- S
- Selectivity decomposition of isopropyl iodide on a cuprous iodide catalyst. Effect of solid-state properties on catalytic. HANS U. D. WIESENDANGER, 283
- Semiconductors upon their adsorptive capacity.

- Effect of surface curvature of. O. PESHEV AND G. BLIZNAKOV, 18
- Shokubai (Catalyst), abstracts, Vol. 8, No. 2, 1966, 199
- Shokubai (Catalyst), abstracts, Vol. 8, Nos. 4 and 5, 1966, 307
- Silica, alumina, and silica-alumina catalysts. Hydroxyl groups on. MASAO SATO, TATSUJI KANBAYASHI, NORIO KOBAYASHI, AND YOSHITSUGU SHIMA, 342
- Silica and silica-supported nickel. Acetone and acetaldehyde on. Infrared spectroscopic studies of adsorption and catalysis. R. P. YOUNG AND N. SHEPPARD, 223
- Silica-alumina. Rate constants for *n*-butene interconversion reactions over alumina, fluorided alumina, and. JOE. W. HIGHTOWER, H. R. GERBERICH, AND W. KEITH HALL, 57
- Silica-alumina. Use of alkali metal poisons in the elucidation of cracking catalyzed by. R. W. MAATMAN, D. L. LEENSTRA, A. LEENSTRA, R. L. BLANKESPOOR, AND D. N. RUBINGH, 1
- Silica-alumina catalyst. Dealkylation, fragmentation, and C₆ dehydrocyclization of 3-phenylpentane on. CHR. DIMITROV AND P. IGNATIEV, 103
- Single crystals of cobalt oxide and cobalt magnesium oxide. The catalytic decomposition of nitrous oxide on. MILTON. L. VOLPE AND JOHN F. REDDY, 76
- Sticking probabilities by an effusive beam technique: the germanium-oxygen system. R. J. MADIX AND M. BOUDART, 240
- Subject Index, 401
- Sulfonated and phosphonated polyphenyl. Acid-type catalysis. J. MANASSEN AND SH. KHALIF, 110
- Surface area in catalysts. The determination of the specific copper. TH. OSINGA, B. G. LINSEN, AND W. P. VAN BEEK, 277
- Surface area studies. A novel catalytic method for the preparation of DPPH and the application of the technique to active. J. L. GARNETT, A. T. T. OEI, AND W. A. SOLLICH-BAUMGARTNER, 305
- Surface curvature of semiconductors upon their adsorptive capacity. Effect of. O. PESHEV AND G. BLIZNAKOV, 18
- Surface flow of adsorbed carbon dioxide on active carbon. JAN POPIELAWSKI, 263
- T
- Tin(II)-platinum(II) complex. Isomerization of 1-pentene by a. G. C. BOND AND MARGARET HELLIER, 217
- Transition elements. Activity pattern in the hydrogenation of ethylene over the oxides of the first series of. D. L. HARRISON, D. NICHOLLS, AND H. STEINER, 359
- X
- X-irradiated alumina. Catalytic carbon monoxide oxidation on. R. COEKELBERGS, R. COLLIN, A. CRUCQ, J. DECOT, L. DEGOLS, AND L. TIMMERMAN, 85
- Z
- Zinc oxide. The heats of chemisorption of carbon dioxide on. O. LEVY AND M. STEINBERG, 159