

1. TiO₂/MgO Mixed Oxides II. I.r. Study
J.A. Lercher, Z. Physik. Chemie N.F. 118, 209 (1979).
2. Acid Behavior of SiO₂/Al₂O₃ Mixed Oxides
H. Vinek and J.A. Lercher, React. Kin. Catal. Lett. 14, 273 (1980).
3. Apparent Inconsistencies in Acid Base Behaviour of ZnO
H. Vinek, J.A. Lercher and H. Noller, Reakt. Kin. Catal. Lett. 15, 21 (1980).
4. An Unexpected Reaction: Formation of Alkane from Alkane(1)ol on Anatase
H. Vinek, J.A. Lercher and H. Noller, Proc. 7th Int. Congr. on Catalysis, Kodansha Ltd. Tokyo (1981).
5. Variaciones monotonas y no monotonas de las propiedades catalyticas de mezclas
H. Noller, H. Vinek and J.A. Lercher, Proc. Simposio Iber. Americano de Catalysis, La Plata, p.568, Argentina (1980).
6. Acetone on Magnesia - An Infrared and Temperature Programmed Desorption Study
J.A. Lercher, H. Noller and G. Ritter, J.C.S. Faraday I 77, 621 (1981).
7. Acetonitrile on Silica - Magnesia Mixed Oxides - Temperature Programmed Desorption and Infrared Study
G. Ritter, H. Noller and J.A. Lercher, J.C.S. Faraday I 78, 2239 (1982).
8. Infrared Spectroscopic Study of Hydroxyl Group Acid Strength of Silica, Alumina and Magnesia Mixed Oxides
J.A. Lercher and H. Noller, J. Catal. 77, 152 (1982).
9. Acid - Base Properties of Al₂O₃/MgO Oxides I. I.r. Study of Adsorption of Acetone
J.A. Lercher, Z. Phys. Chemie NF 129, 209 (1982).
10. Acid - Base Properties of Al₂O₃/MgO Oxides II. I.r. Study of Adsorption of Pyridine
J.A. Lercher, React. Kin. Catal. Lett. 20, 409 (1982).
11. Acid - Base Properties of Al₂O₃/MgO Oxides III. I.r. Study of Adsorption of Pyrrole
J.A. Lercher, Ch. Colombier und H. Noller, Z. Phys. Chemie NF 131, 111 (1982).
12. Acid - Base Properties of Al₂O₃/MgO Oxides IV. I.r. Study of Adsorption of CO₂
J.A. Lercher, Ch. Colombier and H. Noller, J.C.S. Faraday I 80, 949 (1984).
13. Bridging and Terminal Hydroxyls: A Structural Chemical and Quantum Chemical Discussion
W.J. Mortier, J. Sauer, J.A. Lercher and H. Noller, J. Phys. Chem. 88, 905 (1984).
14. Acid - Base Properties of Al₂O₃/MgO Oxides V. The Decomposition of Diacetonealcohol
J.A. Lercher, Ch. Colombier and H. Noller, React. Kin. Catal. Lett. 23, 365 (1983).
15. Acid - Base Properties and Cracking Activity of Crystalline and Amorphous Silica - Alumina Oxides
H. Vinek, J.A. Lercher and H. Noller, Proc. V. Int. Symp. Het. Catal. II, 333 (Varna 1983).
16. Acid - Base Properties of Silica - Alumina Samples Derived from NaX Zeolites I. Physical Characterization and I.r. Study of Adsorption of Acetone
J.A. Lercher, H. Vinek and H. Noller, J.C.S. Faraday I, 80, 1239 (1984).
17. Acid - Base Properties of Silica - Alumina Oxides Derived from NaX Zeolites II. I.r. and t.p.d. Study of Adsorption of Pyridine
J.A. Lercher, G. Ritter and H. Vinek, J. Coll. Int. Sci., 106, 215 (1985).
18. Acid - Base Properties of Silica - Alumina Oxides Derived from NaX Zeolites III. Catalytic Activity in Dehydration of Alcohols and in Isomerization of 1-Butene
H. Vinek, J.A. Lercher and H. Noller, J. Mol. Catal., 80, 353 (1985).
19. The Effect of Impurities on Chemisorption and Activity of MgO Supported Rhodium
J. Wang, J.A. Lercher and G.L. Haller, J. Catal, 88, 18 (1984).
20. TiO₂/ZnO Mixed Oxides Catalysts, Characterization by XPS, IR Spectroscopy and Reactions with Propanol and Butanol
J.A. Lercher, H. Vinek, H. Noller and J. Stoch, Applied Catal. 12, 293 (1984).

21. Characterization of Active Sites for Isomerization of Butenes on TiO₂/ZnO Oxides by I.r. and XPS Spectroscopy
J.A. Lercher, H. Vinek, St. Astegger and H. Noller, Proc. IX. Iberoam. Symp. Catal. pp. 329 (Lissabon 1984).
22. Strength and Location of Acidic Sites in ZSM5 type Zeolites
J.A. Lercher, G. Rumplmayr, G. Ritter and H. Noller, Proc. XI. Iberoam. Symp. Catal. pp. 1669 (Lissabon 1984).
23. Adsorptive Properties of Aluminophosphate Molecular Sieves
G. Dworezkov, G. Rumplmayr, H. Mayer and J.A. Lercher, Stud. Surf. Sci. Catal. 21, 163 (1985).
24. Acid and Base Strength of Alumina - Magnesia Mixed Oxides
J.A. Lercher, Ch. Colombier, H. Vinek and H. Noller, Stud. Surf. Sci. Catal. 20, 25 (1985).
25. Modification of ZSM5 Type Zeolites with H₃PO₄
J.A. Lercher, G. Rumplmayr and H. Noller, Acta Phys. Chem. 31, 71 (1985).
26. Strength, Type and Catalytic Activity of Acid Sites in ZSM5 Zeolites
J.A. Lercher and G. Rumplmayr, Z. Phys. Chem. N.F., 146, 113 (1986).
27. Controlled Decrease of Acid Strength by Deposition of H₃PO₄ on ZSM5
J.A. Lercher and G. Rumplmayr, Appl. Cat., 25, 215 (1986).
28. Acid-Base and Catalytic Properties of Alkali Metal Exchanged ZSM5
M. Derewinski, J. Haber, J. Ptaszynski, J.A. Lercher and G. Rumplmayr, Stud. Surf. Sci. Catal. 28, 957 (1986).
29. Acid Sites of Postsynthesis Phosphorus Modified ZSM5 Zeolites
A. Jentys, G. Rumplmayr, H. Vinek and J.A. Lercher, Proc. VIth Int. Symp. Heterogeneous Catalysis, p. 264, Sofia (1987).
30. Characterization of Alkali Exchanged ZSM5 by I.r. Spectroscopy
G. Warecka, G. Rumplmayr and J.A. Lercher, Microchim. Acta, Vol 1988 II, 101 (1988).
31. Acidic and Basic Sites of Main Group Mixed Metal Oxides
H. Noller, J.A. Lercher and H. Vinek, Mater. Chem. Phys., 18, 577 (1988).
32. Surface Chemistry of Alkali Exchanged ZSM5 Zeolites
J.A. Lercher, G. Warecka and M. Derewinski, Proc. 9th Int. Congr. on Catalysis, p.364, Calgary (1988).
33. Nature of Acid Sites in SAPO5 Molecular Sieves I. Effects of the Concentration of silicon incorporated and of amorphous impurities
C. Halik, J.A. Lercher and H. Mayer, J.C.S. Faraday I 84, 4457 (1988).
34. Catalytic Properties of Postsynthesis Phosphorus Modified HZSM5 Zeolites
H. Vinek, G. Rumplmayr and J.A. Lercher, J. Catal., 115, 291 (1989).
35. Type, Stability and Acidity of Hydroxyl Groups of HNaK-Erionites
A. Kogelbauer, J.A. Lercher, K.H. Steinberg, F. Rössner, A. Söllner and R.V. Dmitriev, Zeolites, 9, 224 (1989).
36. Adsorption of Water on ZSM5 Zeolites
A. Jentys, G. Warecka, M. Derewinski and J.A. Lercher, J. Phys. Chem., 93, 4837 (1989).
37. Surface Chemistry of HZSM5 studied by time resolved I.r. Spectroscopy
A. Jentys, G. Warecka and Johannes A. Lercher, J. Mol. Catalysis, 51, 309 (1989).
38. I.r. Study of the Adsorption of Benzene on HZSM5
A. Jentys and J.A. Lercher, Stud. Surf. Sci. Catal. 46, 585 (1989).
39. Interactions of Hydrocarbons and Water with ZSM5
A. Jentys, G. Mirth, J. Schwank and J. A. Lercher, Stud. Surf. Sci. Catal. 49, 847 (1989).
40. Catalytic Activity of SAPO5 for Cracking of Butane and Hexane
C. Halik, S. Chaudhuri, J.A. Lercher, J.C.S. Faraday I, 85, 3879 (1989).

41. Hydroxyl Groups in Phosphorus Modified HZSM5
A. Jentys, G. Rumpplmayr and J.A. Lercher, *Appl. Catal.* 53, 299 (1989).
42. Determination of Proton Affinity of Zeolites and zeolite like Solids by Low-temperature Adsorption of Carbon Monoxide
L. Kubelkova, S. Beran and J. A. Lercher, *Zeolites*, 9, 539 (1989).
43. Genesis and Characterization of silica supported Ni/Pt catalysts
C. Raab, J.A. Lercher, J.G. Goodwin, Jr., and J.Z. Shyu, *J. Catal.* 122, 406 (1990).
44. Reactions of ethanol over HZSM5
S.N. Chaudhuri, C. Halik and J.A. Lercher, *J. Mol. Catal.*, 62, 289 (1990).
45. Modification of HZSM5 with Trimethylphosphine
G. Rumpplmayr and J.A. Lercher, *Zeolites*, 10, 283 (1990).
46. Cracking of n-alkanes over HNaK Erionites
A. Kogelbauer and J.A. Lercher, *J. Catal.*, 125, 197 (1990).
47. Adsorption Complexes of Methanol on Zeolite ZSM5
G. Mirth, J.A. Lercher, M.W. Anderson and J. Klinowski, *J.C.S. Faraday I*, 86 3039 (1990).
48. I.r.spectroscopy on single zeolite crystals I, Thermal decomposition of the template in MFI type materials
M. Nowotny, H. Kessler and J.A. Lercher, *Zeolites*, 11, 454 (1991).
49. Production and Reactions of Xylenes over HZSM5
H. Vinek and J.A. Lercher, *J. Mol. Catal.*, 64, 23 (1991).
50. Alkylation of Toluene with Methanol over Alkali Exchanged ZSM5
H. Vinek, M. Derewinski, G. Mirth and J.A. Lercher, *Appl. Catal.*, 68, 277 (1991).
51. Surface chemistry of methanol on HZSM5
G. Mirth and J.A. Lercher, *Stud. Surf. Sci. Catal.* 61, 437 (1991).
52. Coadsorption of toluene and methanol on HZSM-5 zeolites
G. Mirth and J.A. Lercher, *J. Phys. Chem.*, 95, 3736 (1991).
53. Conversion of acetone over modified Y zeolites SAPO-5 and AlPO₄-5
Ludmilla Kubelkova, Jiri Cejka, Jana Novakova, Johannes Lercher and Elke Jahn, *Z. Phys. Chemie, N.F.*, 168, 231 (1990).
54. Cracking of light alkanes over MeAPO-5 molecular sieves
J. Meusinger, H. Vinek, G. Dworeckow, M. Goepper and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 69, 373 (1991).
55. Formation of bimetallic phases during temperature programmed reduction
A. Jentys and J.A. Lercher, *Proc. VIIIth Int. Symp. Heterogeneous Catalysis*, p. 113, Bourgas (1991).
56. Hydrogenation of crotonaldehyde on silica supported Pt/Ni catalysts
Ch. Raab and J.A. Lercher, *Proc. VIIIth Int. Symp. Heterogeneous Catalysis*, p. 809, Bourgas (1991).
57. In situ i.r. spectroscopic study of the surface species during methylation of toluene over HZSM5
G. Mirth and J.A. Lercher, *J. Catal.*, 132, 244 (1991).
58. Adsorption and surface chemistry of light thiols on HZSM5 and NaZSM5
C.L. Garcia and J.A. Lercher, *J. Phys. Chem.*, 95, 10729 (1991).
59. Correlations between XPS binding energies and the composition of aluminosilicates and phosphates
J. Stoch, J.A. Lercher and S. Ceckiewicz, *Zeolites*, 12, 81 (1992) .
60. Temperature programmed reduction of silica supported Pt/Ni catalysts studied by XANES
A. Jentys, B. McHugh, G. Haller and J.A. Lercher, *J. Phys. Chem.*, 96, 1324 (1992).
61. Adsorption of H₂S on ZSM5 zeolites
C.L. Garcia and J.A. Lercher, *J. Phys. Chem.*, 96, 2230 (1992).

62. Adsorption and surface reactions of thiophene on ZSM5 zeolites
C.L. Garcia and J.A. Lercher, *J. Phys. Chem.*, 96, 2669 (1992).
63. Kinetics of catalyzed processes studied by FTIR spectroscopy
J. A. Lercher, *S.P.I.E.*, 1575, 125 (1992).
64. Hydrogenation of crotonaldehyde over silica supported Ni/Pt catalysts
Ch. Raab and J. A. Lercher, *J. Mol. Catal.*, 75, 71 (1992).
65. Pt/Ni catalyst preparation studied by in situ X-ray absorption spectroscopy
A. Jentys and J.A. Lercher, *Proc. 48th Int. Meeting Synchrotron Radiation and Dynamic Phenomena*, p. 583, American Institute of Physics (1992).
66. Surface chemistry of methanol and ammonia on HNaK erionites
A. Kogelbauer and J.A. Lercher, *J.C.S. Faraday Transactions*, *J. Chem. Soc. Faraday Trans* 88, 2283 (1992).
67. The role of the hardness of the zeolite lattice for the local adsorption structure of polar molecules
G. Mirth, A. Kogelbauer and J.A. Lercher, *Proc. 9th Int. Zeolite Conference*, p. 251, Eds. R. von Ballmoos, Butterworth-Heinemann, (1993).
68. Design of platinum based metallic catalysts for selective hydrogenation of crotonaldehyde
A. Jentys, Ch.G. Raab and J.A. Lercher, *Proc. 10th International Congress on Catalysis 92*, p. 2301 Guzzi *et al.* Eds., Elsevier Science Publishers B.V. (1993).
69. Transport and isomerization of xylenes over HZSM-5 zeolites
G. Mirth, J. Cejka and J. A. Lercher, *J. Catal.*, 139, 24 (1993).
70. Hydrogen bonding of sulfur containing compounds adsorbed on zeolite HZSM5
C.L. Garcia and J.A. Lercher, *J. Mol. Struct.*, 293, 235 (1993).
71. The formation of metallic particles during temperature programmed reduction of silica supported Pt and Ni chlorides
Andreas Jentys, Gary L. Haller and Johannes A. Lercher, *J. Phys. Chem.*, 97, 484 (1993).
72. Preparation of bariumtitanates from oxalates
M. Stockenhuber, H. Mayer and J.A. Lercher, *J. Am. Ceram. Soc.*, 76, 1185 (1993).
73. Activity and selectivity of Pt/Ni/TiO₂ catalysts for hydrogenation of crotonaldehyde
C.G. Raab and J.A. Lecher, *Catal. Lett.*, 18, 99 (1993).
74. Selective hydrogenation of crotonaldehyde over Pt derived catalysts
C.G. Raab, M. Englisch, T.B.L.W. Marinelli and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 78, 211 (1993).
75. Furfural - hydrogen reactions, manipulation of activity and selectivity of the catalyst
T.B.L.W. Marinelli, V. Ponc, C.G. Raab and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 78, 195 (1993).
76. Effects of adsorbed oxygen containing molecules on the XANES of Pt in supported Pt/SiO₂ catalysts
A. Jentys, M. Englisch and J.A. Lercher, *Catal. Lett.*, 21, 303 (1993).
77. Evidence for strong acidity of the molecular sieve cloverite
T.L. Barr, J. Klinowski, H. He, K. Alberti, G. Müller and J.A. Lercher, *Nature*, 365, 429 (1993).
78. Influence of metal particle size and catalyst pretreatment on the selective hydrogenation of crotonaldehyde over Pt/TiO₂
M. Englisch and J.A. Lercher, *Proc. DGMK- Conference on Selective Hydrogenation and Dehydrogenation*, Bericht 9305, p 255, Kassel, FRG,(1993).
79. Cracking of n-butane and n-hexane over SAPO5, MgAPO5 and CoAPO5
J. Meusinger, H. Vinek and J.A. Lercher, *J. Mol. Catal.*, 87, 263 (1994).
80. Design and application of a new reactor for *in situ* infrared spectroscopic investigations of heterogeneously catalyzed reactions
G. Mirth, F. Eder and J.A. Lercher, *Appl. Spectroscopy*, 48, 194 (1994).
81. On the role of product isomerization for shape selective toluene methylation over HZSM5
G. Mirth and J.A. Lercher, *J. Catal.* , 147, 199 (1994).

82. Carbonium ion formation in zeolite catalysis
J.A. Lercher, R.A. van Santen and H. Vinek, *Catal. Lett.* 27, 91 (1994).
83. Correlation of adsorption structure and reactivity in zeolite catalyzed amination
A. Kogelbauer, Ch. Gründling and J.A. Lercher, *Stud. Surf. Sci. Catal.* 84, 1475 (1994).
84. IR microscopic study of sorption and diffusion of toluene in ZSM5
G. Müller, Th. Narbeshuber, G. Mirth and J.A. Lercher, *J. Phys. Chem.*, 98, 7436 (1994).
85. Transition state and diffusion controlled shape selectivity in the formation and reaction of xylenes
G. Mirth, J. Cejka, E. Nusterer and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 83, 287 (1994).
86. Elementary steps of acid-base catalyzed reactions in molecular sieves
J.A. Lercher, G. Mirth, M. Stockenhuber, Th. Narbeshuber and A. Kogelbauer, *Stud. Surf. Sci. Catal.*, 90, 147 (1994).
87. Deactivation and coking of ZSM5 catalysts during alkylation reactions
G. Mirth, J. Cejka, J. Krtil and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 88, 241 (1994).
88. Problem of coke formation on Ni/ZrO₂ catalysts during carbon dioxide reforming of methane
W. Hally, J.H. Bitter, K. Seshan, J.A. Lercher and J.R.H. Ross, *Stud. Surf. Sci. Catal.*, 88, 167 (1994).
89. Hydrogenation of Carbon Monoxide and Ethene over Pt/Ni catalysts
F. Eder and J. A. Lercher, *J. Chem. Soc. Faraday Transactions*, 90, 2977 (1994).
90. Preparation of mixed Al₂O₃/SiO₂ thin films supported on Mo (100)
Ch. Gründling, J.A. Lercher and D.W. Goodman, *Surf. Sci.* 318,97 (1994).
91. Challenges in CH₄+CO₂ reforming
K. Seshan and J.A. Lercher, in "Carbon Dioxide Chemistry: Environmental Issues" p 16, J. Paul and C.M. Pradier Eds., The Royal Society of Chemistry, Cambridge U.K. (1994).
92. Characterization and removal of extra lattice species in faujasites
M. Stockenhuber and J.A. Lercher, *Microporous Materials*, 3, 457 (1995).
93. Coadsorption of Methanol and Isobutene on HY Zeolite
A. Kogelbauer, J.G. Goodwin, Jr., and J.A. Lercher, *J. Phys. Chem.*, 99, 8777 (1995).
94. Sorptive properties of cloverite single crystals studied by in situ FTIR microscopy
G. Müller, G. Eder-Mirth, H. Kessler and J.A. Lercher, *J. Phys. Chem.*, 99, 12327 (1995).
95. Zeolite induced chemical selectivity during toluene alkylation
G. Eder-Mirth, H.D. Wanzenböck and J.A. Lercher, *Stud. Surf. Sci. Catal.* 94, 449 (1995).
96. n-Butane isomerization over acidic mordenite
R.A. Asuquo, G. Eder-Mirth, J.A. Lercher, *J. Catal.*, 155, 376 (1995).
97. *In situ* FTIR microscopic investigation of the acid sites in cloverite
G. Müller, G. Eder-Mirth and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 97, 71 (1995).
98. Sorption of light alkanes on H-ZSM5 and H-mordenite
F. Eder, M. Stockenhuber, and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 97, 495 (1995).
99. Monomolecular conversion of light alkanes over HZSM5
Th. F. Narbeshuber, H. Vinek and J.A. Lercher, *J. Catal.*, 157, 388 (1995).
100. Catalytic hydrolysis of s-triazine compounds over alumina
Z. Zhan, M. Müllner and J.A. Lercher, *Catal. Today*, 27, 167 (1996).
101. Acid-base induced selectivity of molecular sieves in catalytic conversion of polar molecules (review article)
G. Eder- Mirth and J.A. Lercher, *Rec. Trav. Chem. Pays-Bas*, 115, 157 (1996).
102. IR studies of the surface acidity of oxides and zeolites using adsorbed probe molecules (review)
J.A. Lercher, Ch. Gründling and G.Eder-Mirth, *Catal. Today*, 27, 353 (1996).

103. XANES of supported metal particles (review article)
M. Englisch, J.A. Lercher and G.L. Haller, in "X-ray absorption Fine Structure (XAFS) for Catalysts and Surfaces", Y. Iwasawa Ed., p.147, World Scientific Publishing Co., Singapore, New Jersey, London, Hong Kong (1996).
104. Cobalt containing ZSM5 zeolites - Preparation, characterization and structure simulation
A. Jentys, A. Lugstein, O. El Dusouqui, H. Vinek, M. Englisch and J.A. Lercher, Stud. Surf. Sci. Catal. 100, 525 (1996).
105. Synthesis and characterization of mesoporous materials containing highly dispersed cobalt
A. Jentys, P. Ngan, H. Vinek, M. Englisch and J.A. Lercher, Microporous Materials, 6, 13 (1996).
106. Oxidative dehydrogenation of propane over niobia supported vanadium oxide catalysts
T.C. Watling, G. Deo, K. Seshan, I.E. Wachs and J.A. Lercher, Catalysis Today, 28, 139 (1996).
107. Hydrogen/deuterium exchange during the conversion of light alkanes on HZSM5
T.F. Narbeshuber, M. Stockenhuber, A. Brait, K. Seshan and J.A. Lercher, J. Catal., 160, 183 (1996).
108. Influence of the chemical composition upon adsorption, coadsorption and reactivity of ammonia and methanol on alkali exchanged zeolites
A. Kogelbauer, Ch. Gründling and J.A. Lercher, J. Phys. Chem., 100, 1852 (1996).
109. Design of stable catalysts for methane-carbon dioxide reforming
J.A. Lercher, J.H. Bitter, W. Hally, W. Niessen and K. Seshan, Stud. Surf. Sci. Catal. 101, 463 (1996).
110. The role of the oxidic support of Pt catalysts during CO₂ reforming of methane
J.H. Bitter, W. Hally, K. Seshan, J.G. van Ommen and J.A. Lercher, Catal. Today, 29, 349 (1996).
111. Decisive role of transport rate of products for para selectivity - Effect of coke deposition and external surface silylation on activity and selectivity of H-ZSM5 in alkylation of toluene
J. Cejka, N. Zilkova, B. Wichterlova, G. Eder-Mirth, J.A. Lercher, Zeolites, 17, 265 (1996).
112. Selectivity enhancement in methylamine synthesis *via* post-synthesis modification of Brønsted acidic mordenite
Ch. Gründling, G. Eder-Mirth, and J.A. Lercher, J. Catal. 160, 299 (1996).
113. Alkane sorption on siliceous and aluminophosphate molecular sieves - a comparative study
F. Eder and J.A. Lercher, J. Phys. Chem., 100, 16460 (1996).
114. Selective Alkylation of Toluene over Basic Zeolites
A.E. Palomares, G. Eder- Mirth and J.A. Lercher, Proc. DGMK Conf. Catalysis on Solid Acids and Bases, p. 59 (1996).
115. Synthesis of Intermediates and Fine Chemicals using Molecular Sieve Catalysts (review)
S. Feast and J.A. Lercher, Stud. Surf. Sci. Catal., 102, 363 (1996).
116. Carbon dioxide reforming of methane for syngas production - promises and pitfalls
K. Seshan, W. Hally, J.H. Bitter and J.A. Lercher, Proc. Int. Conf on "Catalysis and Adsorption in Fuel Processing and Environmental Protection", p. 33 Sklarska Poreba, Poland (1996).
117. The influence of extraframework aluminum on H-FAU catalyzed cracking of light alkanes
T.F. Narbeshuber, A. Brait, K. Seshan and J.A. Lercher, Appl. Catal. A 146, 119 (1996).
118. Preparation and characterization of polymer stabilized rhodium particles
G.W. Buser, J.G. van Ommen and J.A. Lercher, in "Advanced Techniques in Catalyst Preparation", p. 213, W. Moser Ed., Academic Press, San Diego (1996).
119. New Insight into the mechanism of zeolite catalyzed nucleophilic amination *via in situ* i.r. spectroscopy
Ch. Gründling, V.A. Veefkind, G. Eder- Mirth and J.A. Lercher, Stud. Surf. Sci. Catal. 105, 591(1996).
120. Sorption of alkanes on novel pillared zeolites - comparison between MCM-22 and MCM-36
F. Eder, Y. He, G. Nivarthi, and J.A. Lercher, Recl. Trav. Chim. Pays-Bas., 115, 531 (1996).
121. Surface species in the direct amination of methanol over Brønsted acidic mordenite catalysts
Ch. Gründling, G. Eder- Mirth and J.A. Lercher, Res. Chem. Int., 23, 25 (1997).

122. Sorption and surface chemistry of aminoethanol and ethanediamine on H-mordenites
G.D. Pirngruber, G. Eder-Mirth and J.A. Lercher, *J. Phys. Chem.*,101, 561, (1997).
123. Alkane sorption in molecular sieves - The contribution of ordering, intermolecular interactions
F. Eder and J.A. Lercher, *Zeolites*,18, 75 (1997).
124. Sorption and activation of hydrocarbons by molecular sieves
K. Seshan and J.A. Lercher, *Current Opinion in Solid State & Materials Science*,2, 57 (1997).
125. Structure Sensitivity in Hydrogenation of Crotonaldehyde over Pt/SiO₂ and Pt/TiO₂
M. Englisch, A. Jentys and J.A. Lercher, *J. Catal.*,166, 25 (1997).
126. New highly active catalysts for direct partial oxidation of methane to synthesis gas
A.G. Steghuis, J.G. van Ommen and J.A. Lercher, *Stud. Surf. Sci. Catal.* 107, 403 (1997).
127. On the Role of Pore Size and Tortuosity for Sorption of Alkanes in Molecular Sieves
F. Eder and J.A. Lercher, *J. Phys. Chem.*,101, 1273 (1997).
128. Selective alkylation of toluene over basic zeolites
A.E. Palomares, G. Eder-Mirth and Johannes A. Lercher, *J. Catal.*, 168, 442 (1997).
129. Improving the Stability of H-Mordenite for n-Butane Isomerization
R.A. Asuquo, G. Eder- Mirth, K. Seshan, J.A.Z. Pieterse and J.A. Lercher, *J. Catal.*, 168, 292 (1997).
130. Catalytic hydrogenation by polymer stabilized rhodium
G.W. Busser, J.G. van Ommen and J.A. Lercher, *Stud. Surf. Sci. Catal.* 108, 321 (1997).
131. Hydrogenation of Crotonaldehyde over Pt based Bimetallic Catalysts
M. Englisch and J.A. Lercher, *J. Molec. Catal. A: Chemical*,121, 69 (1996).
132. In situ FTIR microscopic investigation of metal substituted AlPO₄₋₅ single crystals
G. Müller, E. Bodis, G. Eder-Mirth, J. Kornatowski and J.A. Lercher, *J. Molec. Spectr.*,410, 173 (1997).
133. Elementary steps in CO₂/CH₄ reforming - Implications for catalyst design
K. Seshan, J.H. Bitter, and J.A. Lercher, *Proc. 1st European Cong. Chem. Eng.*, Vol 1, 341 (1997).
134. The state of zirconia supported platinum catalysts for CO₂ /CH₄ reforming
J.H. Bitter, K. Seshan and J.A. Lercher *J. Catal.* 171, 279 (1997).
135. Dehydrogenation of Light Alkanes over Zeolites
T.F. Narbeshuber, A. Brait, K. Seshan and J.A. Lercher, *J. Catal.* 172, 127 (1997).
136. Liquid Phase Hydrogenation of Crotonaldehyde over Pt/SiO₂ Catalysts - Influence of the reaction parameters on activity and selectivity
M. Englisch, V. Ranade and J.A. Lercher, *J. Appl. Catal.A: General* 163, 111 (1997).
137. Brønsted acid and pore controlled siting of Alkanes Sorption in Acidic Molecular Sieves
F. Eder, M. Stockenhuber and J.A. Lercher, *J. Phys. Chem. B*, 101, 5414 (1997).
138. Infrared induced activation of methanol in acid zeolites
M. Bonn, H. J. Bakker, J. A. Lercher, A. W. Keyn, and Rutger A van Santen, *Chem Phys. Lett.*, 278, 213 (1997).
139. Structure of Co and Co-oxide clusters in MCM-41
A. Jentys, N.H. Pham, H. Vinek, M. Englisch and J.A. Lercher, *Catal. Today* 39, 311 (1998).
140. Design of stable catalysts for methane-carbon dioxide reforming
K. Seshan, J.H. Bitter and J.A. Lercher, *Stud. Surf. Sci. Catal.* 113, 187 (1998).
141. Hexadecane conversion in the evaluation of commercial FCC catalysts
A. Brait, A. Koopmans, K. Seshan, H. Weinstabl, A. Ecker, and J.A. Lercher, *Ind. Eng. Chem. Res.*, 37, 873 (1998).

142. Chain length effects in the adsorption properties of linear alkanes in zeolite I. Sorption and ^{13}C NMR experiments
W.J.M. van Well, X. Cottin, J.W. de Haan, J.H.C. van Hooff, R.A. van Santen, B. Smit, G. Nivarthi and J.A. Lercher, *J. Phys. Chem B*, 102, 3945 (1998).
143. Elementary steps and the influence of process variables in isobutane alkylation over H-BEA
G.S. Nivarthi, Y. He, K. Seshan and J.A. Lercher, *J. Catal.* 176, 192 (1998).
144. Mono and bifunctional pathways of CO_2/CH_4 reforming over platinum and rhodium based catalysts
J. H. Bitter, K. Seshan and J.A. Lercher, *J. Catal.*, 176, 93 (1998).
145. Evaluation of Commercial FCC Catalysts for Hydrocarbon Conversion, I. Physicochemical Characterization and n-Hexane Conversion
A. Brait, K. Seshan, and J.A. Lercher, *Appl. Catalysis A: General*, 169, 299 (1998).
146. Evaluation of Commercial FCC Catalysts for Hydrocarbon Conversion, II. Time on Stream Behavior of n-Hexane Conversion and Comparison of n-Hexane Conversion to the Micro Activity Test
A. Brait, K. Seshan, H. Weinstabl, A. Ecker, and J.A. Lercher, *Appl. Catalysis A: General*, 169, 315 (1998).
147. The influence of acidity on zeolite H-BEA catalyzed isobutane/n-butene alkylation
G.S. Nivarthi, K. Seshan and Johannes A. Lercher, *Microporous and Mesoporous Materials*, 22, 379 (1998).
148. Steric Aspects in Methylamine and Dimethylether Synthesis over Acidic Mordenites
V. A. Veefkind, Ch. Gründling and J. A. Lercher, *Journal of Molecular Catalysis A: Chemical*, 134, 111 (1998).
149. Modelling aromatics in siliceous zeolites; A new forcefield from thermochemical studies
N.J. Henson, A.K. Cheetham, M. Stockenhuber and J.A. Lercher, *J.C.S. Faraday Transactions*, 3759 (1998).
150. Zeolite catalysts for the selective synthesis of mono- and diethylamines
V. Veefkind and J.A. Lercher, *J. Catal.*, 180, 258 (1998).
151. Alkylation of toluene over basic catalysts - Key requirements for side chain alkylation
A.E. Palomares, G. Eder- Mirth and J.A. Lercher, *J. Catal.* 180, 56 (1998).
152. Synthesis, Characterization and Catalytic Activity of MCM-36 materials
Y.J. He, G.S. Nivarthi, F. Eder, K. Seshan and J.A. Lercher, *Microporous and Mesoporous Materials*, 25, 207, (1998).
153. Preparation and characterization of Pt particles on unidimensional microporous supports
S. Feast, M. Englisch, A. Jentys and J.A. Lercher, *Appl. Catalysis A*, 174, 155-162 (1998).
154. On the reaction mechanism for methane partial oxidation over yttria/zirconia
A.G. Steghuis, J.G. van Ommen and J.A. Lercher, *Catalysis Today*, 46, 91 (1998).
155. On the elementary steps of acid zeolite catalyzed amination of light alcohols
V. Veefkind and J.A. Lercher, *Appl. Catalysis A: General*, 134, 111 (1998).
156. IR Microspectroscopic Investigation of the Acid Sites in Metal Substituted $\text{AlPO}_4\text{-5}$ Molecular Sieves. I: Sorption of Benzene and Strong Bases
G. Müller, E. Bodis, J. Kornatowski and J.A. Lercher, *Phys. Chem. Chem. Phys.*, 1, 571 (1999).
157. Preparation and Characterization of Polymer Stabilized Rhodium Sols I. Factors affecting the particle size
G.W. Busser, J.G. van Ommen and J.A. Lercher, *J. Phys. Chem. B*, 103, 1651 (1999).
158. In situ IR Spectroscopy for Developing Catalysts and Catalytic Processes
J. A. Lercher, V. Veefkind and K. Fajerweg, *Vibrational Spectroscopy*, 19, 107 (1999).
159. Alkylation of Isobutane with Light Olefins over Zeolite BEA
G.S. Nivarthi, K. Seshan and J.A. Lercher, *Mat. Res. Soc. Vol. II*, 1425 Proc. 12th Int. Zeolite Conference, Baltimore 1998 (1999).
160. Water and Sulfur resistant Pt-based zeolite catalysts for NO_x reduction
S. Maisuls, S. Feast, K. Seshan, J.G. van Ommen and J.A. Lercher, *Proc. 12th Int. Zeolite Conference, Baltimore 1998, Mat. Res. Soc. Vol. IV*, 2889 (1999).

161. Dehydroisomerization of n-butane over bifunctional catalysts
G.D. Pirngruber, K. Seshan and J.A. Lercher Proc. 12th Int. Zeolite Conference, Baltimore 1998, Mat. Res. Soc. Vol. IV, 2881 (1999).
162. Deactivation and coke accumulation during CO₂/CH₄ reforming over Pt catalysts
J.H. Bitter, K. Seshan and J.A. Lercher, J. Catal., 183, 336 (1999).
163. Effect of Brønsted and Lewis acid sites in ferrierites on the skeletal isomerization of n-butene
B. Wichterlova, N. Zilkova, E. Urova, J. Cejka, P. Sarv, C. Paganini and J.A. Lercher, Appl. Catalysis A: General, 182, 297 (1999).
164. Methane Utilization *via* Synthesis Gas Generation - Catalytic Chemistry and Technology
J.A. Lercher, J.H. Bitter, A.G. Steghuis, J.G. van Ommen and K. Seshan, in Catalytic Science Series, Vol 1 - "Environmental Catalysis", R.A. van Santen and J.C. Jansen Eds., p. 103, Imperial College Press, London (1999).
165. Partial oxidation of methane to synthesis gas over titania and yttria/zirconia catalysts
A.G. Steghuis, J.G. van Ommen and J.A. Lercher, Stud. Surf. Sci. Catal. 119, 831 (1998).
166. Dehydroisomerization of n-butane over Pt-ZSM5 I: Effect of the metal loading and acid site concentration
G.D. Pirngruber, K. Seshan, J.A. Lercher, J. Catal., 186, 188 (1999).
167. Adsorption methods for the assessment of the specific surface area and the pore size distribution of heterogeneous catalysts
Catalysis - an Integrated Approach, R.A. van Santen, P. van Leeuwen, J. Moulijn and B.A. Averill, Eds, pp. 543, 2nd Ed., Elsevier Amsterdam (1999).
168. Developing dehydroisomerization catalysts for the conversion of n-butane to iso-butene on the basis of ZSM5
G.D. Pirngruber, K. Seshan, J.A. Lercher, Petroleum and Coal, 41, 72 (1999).
169. Sorption properties and correlations between analytical parameters of sorption and content of metal in MeAPO-5
J. Kornatowski, M. Rozwadowski, J. Wloch and J.A. Lercher, Stud. Surf. Sci. Catal., 125, 675 (1999).
170. Sulfur tolerance of alkali exchanged zeolites for benzene hydrogenation
L. Simon, J.G. van Ommen, P.J. Kooyman, A. Jentys and J.A. Lercher, Proc. DGMK- Conference on "The Future Role of Aromatics in Refining and Petrochemistry", pp 177 (1999).
171. On selectivity aspects of the alkylation of toluene with methanol over zeolites
M. Rep, A.E. Palomares, G. Eder-Mirth, J.G. van Ommen and J.A. Lercher, Proc. DGMK- Conference on "The Future Role of Aromatics in Refining and Petrochemistry", pp 279 (1999).
172. Causes and consequences of catalyst deactivation in zeolite catalyzed isobutane-olefin alkylation
G.S. Nivarthi, K. Seshan and J.A. Lercher, Stud. Surf. Sci. Catal., 126, 465 (1999).
173. The (oxidative) dehydroisomerization of n-butane to isobutene - Effect of butadiene on catalyst deactivation
G.D. Pirngruber, K. Seshan, J.A. Lercher, Stud. Surf. Sci. Catal., 126, 307 (1999).
174. On the accessibility of acid sites in ferrierite for pyridine
J.A.Z. Pieterse, S. Veeffkind-Reyes, L. Domokos, K. Seshan and J. A. Lercher, J. Catal., 187, 518 (1999).
175. Mechanism for partial oxidation of methane to synthesis gas over titania catalysts
A.G. Steghuis, J.G. van Ommen and J.A. Lercher, Proc. 3rd Int. Conf. in Catalysis and Adsorption in Fuel Processing and Environmental Protection, Wroclaw, pp.21 (1999).
176. On the conversion of n-butene over Pt-ZSM-5
G.D. Pirngruber, K. Seshan, J.A. Lercher, Catal. Lett. 64, 233 (2000).
177. The effect of the pore structure of medium pore zeolites on the dehydroisomerization of n-butane - A comparison of Pt-FER, Pt-TON and Pt-ZSM5
G.D Pirngruber, O.P.E. Stagno, K Seshan, J.A. Lercher, J. Catal. 190, 374 (2000).
178. The direct conversion of n-butane to isobutene over Pt-MCM22
G.D Pirngruber, K Seshan, J.A. Lercher, J. Catal. 190, 396 (2000).

179. Dehydroisomerization of n-butane over Pt-ZSM5 (II) - Kinetic and Thermodynamic Aspects
G.D. Pirngruber, K. Seshan, J.A. Lercher, *J. Catal.* 190, 338 (2000).
180. On the role of strength and location of Brönsted acid sites for ethylamine synthesis on mordenite catalysts
V.A. Veefkind, M. L. Smidt and J.A. Lercher, *Appl. Catal. A, General*, 194-195, 319 (2000).
181. Alkylation of isobutane with light olefins catalyzed by zeolite Beta
G.S. Nivarthi, A. Feller, K. Seshan and J.A. Lercher, *Microporous and Mesoporous Materials*, 35-36, 75 (2000).
182. On the contribution of X-ray absorption spectroscopy to explore structure activity relations of Pt/ZrO₂ catalysts for CO₂/CH₄ reforming
J.H. Bitter, K. Seshan and J.A. Lercher, *Topics in Catalysis*, 10, 295 (2000).
183. Deactivation of medium pore zeolite catalysts by butadiene during n-butene isomerization
G.D. Pirngruber, K Seshan, J.A. Lercher, *Microporous and Mesoporous Materials*, 38, 221 (2000).
184. Sorption of methanol in alkali exchanged zeolites
M. Rep, A.E. Palomares, J.G. van Ommen, and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 130, 2957 (2000).
185. Transition state and diffusion controlled selectivity in skeletal isomerization of olefins
L. Domokos, M.C. Paganini, F. Meunier, K. Seshan and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 130, 323 (2000).
186. Mechanistic routes of low temperature alkane activation over zeolites
J.A.Z. Pieterse, K. Seshan and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 130, 2567 (2000).
187. The role of hydride transfer in zeolite catalyzed isobutane/butene alkylation
G.S. Nivarthi, A. Feller, K. Seshan and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 130, 2561 (2000).
188. Compensation phenomena in Heterogeneous Catalysis: General principles and a possible explanation
G.C. Bond, M. A. Keane, H. Kral, and J.A. Lercher, *Cat. Rev. Sci. Eng.*, 42, 323 (2000).
189. Zinc ion exchanged zeolites for the intramolecular hydroamination of 6-aminohept-1-yne
J. Penzien, T. Müller and J.A. Lercher, *J. Chem. Soc. Chem. Commun*, 1753 (2000).
190. Reactivity of coke on supported Pt catalysts
K. Nagaoka, K. Seshan, J.A. Lercher and K. Aika, *Catalyst & Catalysis (Japanese)*, 41, 412 (1999).
191. Sorption and ordering of dibranched alkanes on medium pore zeolites ferrierite and TON
J.A.Z. Pieterse, S. Veefkind-Reyes, K. Seshan, and J. A. Lercher, *J. Phys. Chem. B*, 104, 5715-5723 (2000).
192. Interaction of Methanol with Alkali-Exchanged Molecular Sieves II – Density Functional Study
G.N. Vayssilov, J.A. Lercher and N. Rösch, *J. Phys. Chem. B* 104, 8614 (2000).
193. Interaction of Methanol with Alkali-Exchanged Molecular Sieves I – I.r. Spectroscopic study
M. Rep., E.A. Palomares, G.Eder-Mirth, J.G. van Ommen, N. Rösch and J.A. Lercher, *J. Phys. Chem.B*, 104, 8624 (2000).
194. On the determination of the location of metal clusters supported on molecular sieves by X-ray absorption
A. Jentys, L. Simon and J.A. Lercher, *J. Phys. Chem B.*, 104, 9411 (2000).
195. Structure-activity correlations for TON, FER and MOR in the hydroisomerization of n-butane
J.A. Pieterse, K. Seshan and J.A. Lercher, *J. Catal.*, 195, 326 (2000).
196. The importance of acid site locations for n-butene skeletal isomerization on ferrierite
L. Domokos, L. Lefferts, K. Seshan and J.A. Lercher, *Journal of Mol. Cat. A: Chemical* 162, 147-157 (2000).
197. An in situ XANES study of Pt/mordenites during benzene hydrogenation in the presence of thiophene
L. Simon, J.G. van Ommen, A. Jentys and J.A. Lercher, *J. Phys. Chem. B*, 104, 11644 (2000).
198. Activation Mechanism of Methane-Derived-Coke (CH_x) by CO₂ during Dry Reforming of Methane - Comparison for Pt/Al₂O₃ and Pt/ZrO₂
K. Nagaoka, K. Seshan, J. A. Lercher, and K. Aika, *Catal. Lett*, 70 109 (2000).

199. Selective catalytic reduction of NO_x to nitrogen over Co-Pt/ZSM-5. Part A. characterization and kinetic studies
S.E. Maisuls, K. Seshan, S. Feast and J.A. Lercher, *Applied Catalysis B Environmental*, 29, 69-81 (2001).
200. Carbon deposition during carbon dioxide reforming of methane – comparison between Pt/Al₂O₃ and Pt/ZrO₂
K. Nagaoka, K. Seshan, K. Aika, and J. A. Lercher, *J. Catal.*, 197, 34 (2001).
201. Isomerization of linear butenes to iso-butene over medium pore zeolites: I Kinetic aspects of the reaction over H-FER
L. Domokos, L. Lefferts, K. Seshan and J.A. Lercher, *J. Catal.*, 197, 68 (2001).
202. On the interfacial mass transfer and the location of the chemical reaction in a fluid/fluid reacting system at elevated temperatures and pressures
N.Van Nhu, A. Wanner, H. Tiltcher and J.A. Lercher, *Catal. Today* 66, 335 (2001).
203. Sulfur tolerant Pt supported zeolite catalysts for benzene hydrogenation Part I: Influence of the support
L. Simon, J.G. van Ommen, A. Jentys and J.A. Lercher, *J. Catal.*, 201, 60-69 (2001).
204. Mechanism of carbon deposit/removal in methane dry reforming on supported metal catalysts
K. Nagaoka, K. Seshan, K. Aika, and J. A. Lercher, *Stud. Surf. Sci. Catal.*, 136, 129 (2001).
205. Co-templated synthesis of CrAPO-5 with various organic acids
J. Kornatowski, G. Zadrozna, J.A. Lercher and M. Rozwadowski, *Stud. Surf. Sci. Catal.*, 135, 337 (2001).
206. Ion exchange of alkali metals and control of acidic/basic properties of MCM-22 and MCM-36
J.-O. Barth, R. Schenkel, J. Kornatowski and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 135, 136 (2001).
207. Dual pathways for benzene hydrogenation on Pt/mordenites: Implication for sulfur tolerance
L. Simon, J.G. van Ommen, A. Jentys and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 135, 166 (2001).
208. I.r. study on the reaction path of methanol decomposition over basic zeolites
M. Rep, J.G. van Ommen, L. Lefferts and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 135, 316 (2001).
209. Reduction of nitric oxide by hydrocarbons on Ni ion-exchanged zeolites
B.I. Mosqueda-Jiménez, M. Brandmair, A. Jentys, K. Seshan and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 135, 328 (2001).
210. Selective reduction of NO to N₂ in the presence of oxygen
T. Furusawa, K. Seshan, S.E. Maisuls, J.A. Lercher, L. Lefferts and K. Aika, *Stud. Surf. Sci. Catal.*, 135, 329 (2001).
211. Structural properties and sieving effects of surface modified ZSM-5
S.Zheng, H. Heydenrych, P. Röger, A. Jentys and J.A. Lercher, *Stud. Surf. Sci. Catal.*, 135, 214 (2001).
212. Direct addition of amine N-H to CC triple bonds – New hydroamination catalysts based on late transition metals
J. Penzien, T. Müller and J.A. Lercher, in “Catalysis by Unique Metal Ion Structures in Solid Matrices”, G. Genti *et al.* (eds), Kluwer Academic Publishers, p. 263-278 (2001).
213. Techniques of zeolite characterization
A. Jentys and J.A. Lercher, in “Introduction to Zeolite Science and Practice”, H. van Bekkum, E.M. Flanigen, P.A. Jacobs and J.C. Jansen Eds. p. 345, Elsevier Science B.V. (2001).
214. Oxidative dehydrogenation and cracking of ethane and propane over LiDyMg mixed oxides
S. Fuchs, L. Leveles. K. Seshan, L. Lefferts, A. Lemonidou and J.A. Lercher, *Topics in Catalysis* 15, 169 (2001).
215. Thiophene decomposition on Pt supported zeolites- A TPD study
L. J. Simon, M. Rep, J.G. van Ommen and J.A. Lercher, *Applied Catalysis A*, 218, 161 (2001).
216. An Explanation for the Enhanced Activity for Light Alkane Conversion in Mildly Steam Dealuminated Mordenite: The Dominant Role of Adsorption
J. A. van Bokhoven, M. Tromp, D. C. Koningsberger, J. T. Miller, J. A. Z. Pieterse, J. A. Lercher, B. A. Williams, H. H. Kung, *J. Catal.*, 202, 129 (2001).
217. Oxidative dehydrogenation of ethane over novel mixed oxides
A. Hartung, S. Gaab, J. Find, A. Lemonidou and J.A. Lercher, *Proc. DGMK- Conference on “Creating Value from Light Olefins, Production and Conversion”*, p139 (2001).

218. Hydroamination of 6-aminohex-1-yne over Zinc based homogeneous and zeolite catalysts
J. Penzien, T. Müller and J.A. Lercher, *Microporous and Mesoporous Materials*, 48, 285 (2001).
219. Sulfur tolerant Pt supported zeolite catalysts for benzene hydrogenation Part II: Influence of the cation exchange level for Pt/MOR based catalysts
L. Simon, J.G. van Ommen, A. Jentys and J.A. Lercher, *J. Catal.*, 203, 434 (2001).
220. Applied molecular simulations over FER, TON and AEL type zeolites
L. Domokos, L. Lefferts, K. Seshan and J.A. Lercher, *J. Catal.*, 203, 351 (2001).
221. New Strategy for chromium substitution and crystal morphology control – Synthesis and characteristics of CrAPO-5
J. Kornatowski, G. Zadrozna, M. Rozwadowski, B. Zibrowius, F. Marlow and J.A. Lercher, *Chem. Mat.* 13, 4447 (2001).
222. Synthesis of new MCM-36 derivatives pillared with alumina or magnesia-alumina
J.O. Barth, J. Kornatowski and J.A. Lercher, *J. Mat. Chem.* 12, 369 (2002).
223. Sulfur Tolerance of Pt/Mordenites - Do Brønsted acid sites participate in hydrogenation?
L. J. Simon, J. G. van Ommen, A. Jentys and J. A. Lercher, *Catal. Today*, 73, 105 (2002).
224. Studies on the deactivation of NO_x storage-reduction catalysts by sulfur dioxide
Ch. Sedlmair, K. Seshan, A. Jentys, J. A. Lercher, *Catalysis Today*, 75, 413 (2002).
225. Oxidative conversion of light alkanes to olefins over alkali promoted oxide catalysts
L. Leveles, S. Fuchs, K. Seshan, J. A. Lercher and L. Lefferts, *Applied Catal. A*, 227, 287 (2002).
226. Continuous hydroamination in a liquid-liquid two phase system
V. Neff, T. E. Müller and J.A. Lercher, *Chem. Comm.* 906 (2002).
227. Catalytic Reduction of NO_x in oxygen rich gas streams, deactivation of NO_x storage-reduction catalysts by sulfur.
Ch. Sedlmair, K. Seshan, A. Jentys and J.A. Lercher, in "Material Aspects in Automotive Catalytic Converters" H. Bode Ed., pp. 223, Wiley.VCH, Weinheim (2002).
228. Selective reduction of NO to N₂ in the presence of oxygen over supported silver catalysts
Applied Catalysis B: Environmental 37, 205 (2002).
229. Chemical and structural aspects of the transformation of the MCM-22 precursor into ITQ-2
R. Schenkel, J.-O. Barth, J. Kornatowski, and J.A. Lercher, *Stud Surf. Sci. Catal.* 142, 69 (2002).
230. Kinetic processes during sorption and diffusion of aromatic molecules on medium pore zeolites studied by time resolved IR spectroscopy
H. Tanaka, S. Zheng, A. Jentys and J. A. Lercher, *Stud Surf. Sci. Catal.*, 1619 (2002).
231. Control of AFI type crystal synthesis with additional gel components
J. Kornatowski, G. Zadrozna and J.A. Lercher, *Stud Surf. Sci. Catal.*, 399 (2002).
232. A new type of low – κ dielectric films based on polysilsesquioxanes
Ruo Qing Su, T. E. Müller and J. A. Lercher, *Advanced Materials*, 14, 1369 (2002).
233. Recent Developments in Isobutane/Olefin Alkylation
A. Feller and J. A. Lercher, *Proc. DGMK- Conference on "Innovative Catalysis in Petroleum Refining and Petrochemistry: Recent Advances, Perspectives, Visions"*, pp.41 (2002).
234. Novel Catalysts for Oxidative Olefin Generation
J. Find, S. Gaab, M. Machli and J.A. Lercher, *Proc. DGMK- Conference on "Innovative Catalysis in Petroleum Refining and Petrochemistry: Recent Advances, Perspectives, Visions"*, pp. 233 (2002).
235. Improved Hydroisomerization Catalysts for Light Alkane Isomerization,
L. J. Simon, A. Kinage, J. A. Lercher, *Proc. DGMK- Conference on "Innovative Catalysis in Petroleum Refining and Petrochemistry: Recent Advances, Perspectives, Visions"*, pp 195 (2002).

236. Structural and active site characterization of sulfated zirconia catalysts for light alkane isomerization
M. Standke, C. Breitung, H. Papp, S. Wrabetz, B.S. Klose, X. Yang, R.E. Jentoft, F.C. Jentoft, X. Li, L.J. Simon and J. A. Lercher, Proc. DGMK- Conference on "Innovative Catalysis in Petroleum Refining and Petrochemistry: Recent Advances, Perspectives, Visions", pp. 23 (2002).
237. *In situ* IR study of the nature and mobility of sorbed species on H-FER during but-1-ene isomerization
F.C. Meunier, L. Domokos, K. Seshan and J.A. Lercher, J. Catal., 211, 366 (2002).
238. Applications of Microporous Solids as Catalysts
J.A. Lercher and A. Jentys, in "Handbook of Porous Solids", p. 1097, F. Schüth, K.S. W. Singh and J. Weitkamp Eds., Wiley-VCH, Weinheim (2002).
239. Influence of surface modification on the acid site distribution of HZSM-5
S. Zheng, H. Heydenrych, A. Jentys and J.A. Lercher, J. Phys. Chem. B, 106, 9552 (2002).
240. Recent Developments in Isobutane/Olefin Alkylation
A. Feller and J. A. Lercher, Oil and Gas European Magazine 28, 27 (2002).
241. On the enhanced selectivity of H-ZSM5 modified by chemical liquid deposition
S. Zheng, H. Heydenrych, H.P. Röger, A. Jentys and J.A. Lercher, Topics in Catalysis, 22, 101 (2003).
242. Novel Hydroamination Reactions in a Liquid-Liquid Two-Phase Catalytic System
J. Bódis, Th. E. Müller and J. A. Lercher, Green Chemistry, 5, 227 (2003).
243. An *in situ* IR study of the NO_x adsorption/reduction mechanism on modified Y zeolites
Ch. Sedlmair, B. Gil, K. Seshan, A. Jentys and J. A. Lercher, PCCP, 5, 1897 (2003).
244. Elementary steps of NO_x adsorption and surface reaction on a commercial storage-reduction catalyst
Ch. Sedlmair, K. Seshan, A. Jentys and J. A. Lercher, J. Catal., 214, 308(2003).
245. Reduction of nitric oxide by propene and propane on Ni-exchanged mordenite
B. I. Mosqueda-Jiménez, A. Jentys, K. Seshan and J.A. Lercher, Appl. Catalysis B, Environmental, 43, 105 (2003).
246. Common mechanistic aspects of liquid and solid acid catalyzed alkylation of isobutane with n-butene
A. Feller and J. A. Lercher, J. Catal., 216, 313 (2003).
247. Hydroamination on homogeneous and heterogeneous catalysts – a kinetic study
N. Van Nhu, T.E. Müller and J.A.Lercher, AIChE Journal, 49, 214 (2003).
248. Influence of sulfur dioxide on the catalytic performance of a commercial NO_x-storage reduction catalyst
Ch. Sedlmair, K. Seshan, A. Jentys and J. A. Lercher, Res. Chem. Interm., 29, 257 (2003).
249. Towards understanding the genesis and removal of NO_x in FCC regenerators
J.-O. Barth, A. Jentys and J.A. Lercher, Proc. 17th World Petroleum Congr., Brazil, Vol. 3, pp. 445, Inst. of Petroleum Pub. (2003).
250. Structure-activity relations for Ni-containing zeolites during NO reduction 1. Influence of acid sites
B. I. Mosqueda-Jiménez, A. Jentys, K. Seshan and J.A. Lercher, J. Catal., 218, 348 (2003).
251. Oxidative conversion of propane over lithium promoted magnesia catalyst I. Kinetics and mechanism
L. Leveles, K. Seshan, J. A. Lercher and L. Lefferts, J. Catal., 218, 296 (2003).
252. Oxidative conversion of propane over lithium promoted magnesia catalyst II. Active site characterization and hydrocarbon activation
L. Leveles, K. Seshan, J. A. Lercher and L. Lefferts, J. Catal., 218, 307 (2003).
253. Structure-activity relations for Ni-containing zeolites during NO reduction 2. Role of the chemical state of Ni
B. I. Mosqueda-Jiménez, A. Jentys, K. Seshan and J. A. Lercher, J. Catal., 218, 375 (2003).
254. Selective catalytic reduction of NO_x with propene in the presence of oxygen over Co-Pt promoted H-MFI and H-Y
S.E. Maisuls, L. Lefferts, K.Seshan, T. Furusawa, K. Aika, B. Mosqueda-Gimenez, M. Smidt and J.A. Lercher, Catal. Today 84, 139 (2003).
255. Effect of Co and Ni on benzene hydrogenation and sulfur tolerance of Pt/H-MOR
L. Simon, J.G. van Ommen and J.A. Lercher, Applied Catalysis A General, 252, 283 (2003).

256. Deactivation pathways of zeolites in isobutane/butene alkylation
A. Feller, J.O. Barth, A. Guzman, I. Zuazo and J. A. Lercher, *J. Catal.*, 220, 192 (2003).
257. On the enhanced para-selectivity of HZSM-5 modified by antimony oxide
S. Zheng, A. Jentys and J. A. Lercher, *J. Catal.*, 219, 310 (2003).
258. On the surface reactions during NO reduction with propene and propane on Ni-exchanged mordenite
B. I. Mosqueda-Jiménez, A. Jentys, K. Seshan and J.A. Lercher, *Appl. Catalysis B, Environmental*, 46, 189 (2003).
259. Oxidative dehydrogenation of ethane over novel Li/Dy/Mg mixed oxides: Structure – activity study
S. Gaab, M. Machli, J. Find, R.K. Grasselli and J.A. Lercher, *Topics Catal.* 23, 95 (2003).
260. Combined autothermal reforming and hydrogenolysis of alkanes
M. Brandmair, J. Find and J.A. Lercher, *Proc. DGMK Conf. "Innovation in the Manufacture and Use of Hydrogen"*, 273 (2003).
261. Autothermal reforming of methane over mono- and bimetallic catalysts prepared from hydrotalcite-like precursors.
K. Nagaoka, A. Jentys and J.A. Lercher, *Proc. DGMK Conf. "Innovation in the Manufacture and Use of Hydrogen"*, 171 (2003).
262. A Novel Process for Solid Acid Catalyzed Isobutane/Butene Alkylation
A. Feller, A. Guzman, I. Zuazo and J. A. Lercher, *Stud. Surf. Sci. Catal.* 145, 67 (2003).
263. Steam reforming of light alkanes in micro-structured reactors
J. Find, K. Nagaoka and J.A. Lercher, *Proc. DGMK Conf. "Innovation in the Manufacture and Use of Hydrogen"*, 257 (2003).
264. Heterogeneous catalysts for hydroamination reactions – Structure - activity relationships
J. Penzien, C. Haeßner, A. Jentys, K. Köhler, T. E. Müller, J. A. Lercher, *J. Catal.*, 221, 302 (2004).
265. Effect of Rh-based additives on NO and CO formed during regeneration of spent FCC catalyst
E.F. Iliopoulou, E.A. Efthimiadis, I.A. Vasalos, J.O. Barth and J.A. Lercher, *Applied Catalysis B, Environmental*, 47, 165 (2004).
266. A novel model explaining toluene diffusion in HZSM-5 after surface modification
S. Zheng, H. Tanaka, A. Jentys and J. A. Lercher, *J. Phys. Chem. B*, 108, 1337 (2004).
267. Control of acid-base properties of new nanocomposite derivatives of MCM-36 by mixed oxide pillaring
J.-O. Barth, A. Jentys, J. Kornatowski and J. A. Lercher, *Chem. Mater.*, 16, 724 (2004).
268. On the mechanism of solid acid catalyzed isobutane/butene alkylation over zeolite based catalysts
A. Feller, A. Guzman, I. Zuazo and J. A. Lercher, *J. Catal.*, 224, 80 (2004).
269. Catalytic properties of micro- and mesoporous materials
J.A. Lercher and A. Jentys, *Dekker Encyclopedia of Nanotechnology*, pp. 633 (2004).
270. Elementary reactions and intermediate species formed during the oxidative regeneration of spent FCC catalysts
J.-O. Barth, A. Jentys, and J.A. Lercher, *Ind. Eng. Chem. Res.* 43, 3097 (2004).
271. Adsorption of methanol on MCM-36 derivatives with strong acid and base sites
R. Schenkel, J.O. Barth, J. Kornatowski, A. Jentys and J. A. Lercher, *Proceedings of the 14th International Zeolite Conference* (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p. 1598-1605. ISBN 0-958-46636-X.
272. Mass transfer processes during sorption and diffusion of aromatic molecules on medium pore zeolites
A. Jentys, H. Tanaka and J. A. Lercher, *Proceedings of the 14th International Zeolite Conference* (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p. 2041-2048. ISBN 0-958-46636-X.
273. Development of novel catalytic additives for the in situ reduction of NO_x from fluid catalytic cracking units
J. O. Barth, A. Jentys and J. A. Lercher, *Proceedings of the 14th International Zeolite Conference* (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p. 2441-2448. ISBN 0-958-46636-X.
274. Adsorption of SO₂ on different metal impregnated zeolites
H. Dathe, C. Sedlmair, A. Jentys and J. A. Lercher, *Proceedings of the 14th International Zeolite Conference* (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p. 3003-3009 ISBN 0-958-46636-X.

275. Co-Template impact on structure of AFI type crystals: an adsorption study
J. Kornatowski, G. Zadrozna, J.A. Lercher, K. Erdmann, R. Golembiewski, and M. Rozwadowski, Proceedings of the 14th International Zeolite Conference (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p1872-1879. ISBN 0-958-46636-X.
276. Oxygen reactivity and formate structure in X zeolite
M. Rep, J.G. van Ommen, L. Lefferts and J.A. Lercher, Proceedings of the 14th International Zeolite Conference (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p. 2745-2753 ISBN 0-958-46636-X.
278. Hydroamination reactions catalyzed with zeolite beta
Jiménez, O., Müller, T.E., Schwieger, W. and Lercher, J.A., Proceedings of the 14th International Zeolite Conference (E. van Steen, L. H. Callanan, M. Claeys eds.) (2004), p. 2788-2794 ISBN 0-958-46636-X.
279. Labile sulfates as key components in active sulfated zirconia for n-butane isomerization at low temperature
X. Li, K. Nagaoka and J.A. Lercher, *J. Catal.*, **227**, 130 (2004).
280. Novel derivatives of MCM-36 as catalysts for the reduction of nitrogen oxides from FCC flue gas streams
J.-O. Barth, A. Jentys, E.F. Iliopoulou, I.A. Vasalos, and J.A. Lercher, *J. Catal.*, **227**, 117 (2004).
281. On the nature of nitrogen containing carbonaceous deposits on coked fluid catalytic cracking catalysts
J.-O. Barth, A. Jentys, and J.A. Lercher, *Ind. Eng. Chem. Res.*, **43**, 2368 (2004).
282. Elementary reactions and intermediate species formed during the oxidative regeneration of spent FCC catalysts
J.-O. Barth, A. Jentys, and J.A. Lercher, *Ind. Eng. Chem. Res.* **43**, 3097 (2004).
283. Investigation of the adsorption of methanol on alkali metal cation exchanged zeolite X by inelastic neutron scattering
R. Schenkel, A. Jentys, S.F.Parker, and J.A. Lercher, *J.Phys.Chem. B*, **108**, 7902 (2004).
284. Inelastic Neutron Scattering of Hydrogen and Butyronitrile Adsorbed on Raney-Co Catalysts
A. Chojecki, H. Jobic, A. Jentys, T. E. Müller and J. A. Lercher, *Catal. Lett.*, **97**, 155 (2004).
285. Generation and characterization well-defined Zn²⁺ Lewis acid sites in Ion exchanged zeolite BEA
J. Penzien, A. Abraham, J. A. van Bokhoven, A. Jentys, T. Müller, C. Sievers and J.A. Lercher, *J. Phys. Chem.B*, **108**, 4116 (2004).
286. Alkylation of iso-butane with light alkenes – Mechanism, Catalysts and Industrial Realization
A. Feller and J.A. Lercher, *Adv. in Catalysis*, **48**, 229 (2004).
287. Mechanistic features of the ethane oxidative dehydrogenation by in situ IR spectroscopy over a MoO₃/Al₂O₃ catalyst
E. Heracleous . A. Lemonidou and J. A. Lercher, *Appl. Catal. A, General* **264**, 73 (2004).
288. Surface acidity and basicity of La₂O₃, LaOCl, and LaCl₃ characterized by IR spectroscopy, TPD, and DFT calculations
O.V. Manoilova, S.G. Podkolzin, B. Tope, J.A. Lercher, E. E. Stangland, J.-M. Goupil and B. M. Weckhuysen, *J. Phys. Chem. B* **108**, 15770 (2004).
289. Light Alkane Isomerization with Sulfated Zirconia – From Mechanistic Insight to New Catalysts
X. Li, K. Nagaoka, L.J. Simon and J.A. Lercher, Proc. DGMK Conference “C₄/C₅ hydrocarbons: Routes to higher value-added products” (ISBN 3-936418-23-3) pp. 15 (2004).
290. Alkane Hydroisomerization over Novel Zeolite based Catalysts
C. Wolz, A. Jentys and J.A. Lercher, Proc. DGMK Conference “C₄/C₅ hydrocarbons: Routes to higher value-added products” (ISBN 3-936418-23-3) pp. 217 (2004).
291. INS, IR and NMR spectroscopic study of C₁ - C₄ alcohols adsorbed on alkali metal exchanged zeolite X
R. Schenkel, A. Jentys, S. F. Parker, J.A. Lercher, *J.Phys.Chem. B* **108**, 15013 (2004).
292. Methane autothermal reforming with and without ethane over mono- and bimetal catalysts prepared from hydrotalcite precursors
K. Nagaoka, A. Jentys and J.A. Lercher, *J. Catal.* **229**, 185 (2005).
293. Interaction between Sulfated Zirconia and Alkanes: Prerequisites for Active Sites – Formation and Stability of Reaction Intermediates
X. Li, K. Nagaoka, L. J. Simon, J. A. Lercher, S. Wrabetz, F. C. Jentoft, C. Breitkopf, S. Matysik, H. Papp, *J. Catal.* **230**, 214 (2005).

294. Multi-technique characterization of coke produced during commercial resid FCC operation
H. S. Cerqueira, C. Sievers, J.A. Lercher, G. Joly and P. Magnoux, *Ind. Eng. Chem. Res.* 44, 2069 (2005).
295. Metal organic frameworks based on Cu²⁺ and benzene-1,3,5-tricarboxylate as host for SO₂ trapping agents
H. Dathe, E. Peringer, V. Roberts, A. Jentys and J. A. Lercher, *C.R. Chimie* 8, 753 (2005).
296. Mechanism of butane skeletal isomerization on sulfated zirconia
X. Li, K. Nagaoka, R. Olindo and J.A. Lercher, *J. Catal.*, 232, 456 (2005).
297. On the formation of the acid sites in Lanthanum exchanged X zeolites used for isobutane/cis-2-butene alkylation
A. Guzman, I Zuazo, A. Feller, R. Olindo, C. Sievers and J.A. Lercher, *Microporous and Mesoporous Materials* 83, 309 (2005)
298. New modifications of layered MCM-36 molecular sieve pillared with various mixed oxides: Facts and perspectives
J. Kornatowski, J.O. Barth and J.A. Lercher, *Stud. Surf. Sci. Catal.* 156, 349 (2005).
299. Sulfate formation on SO_x trapping materials studied by Cu- and S-K edge XAFS
H. Dathe, A. Jentys and J.A. Lercher, *PCCP*, 7, 2069 (2005).
300. Surface processes during sorption of aromatic molecules on medium pore zeolites
A. Jentys, H. Tanaka and J.A. Lercher, *J.Phys.Chem. B* 109, 2254 (2005).
301. Adsorption of SO₂ on Ba impregnated metal organic framework materials
H. Dathe, A. Jentys, and J. A. Lercher, *Stud. Surf. Sci. Catal.*, 158, 995 (2005).
302. Characterization of acidic properties of sulfated zeolite BEA
C. Woltz, A. Jentys, J. A. Lercher, *Stud. Surf. Sci. Catal.*, 158, 1763 (2005).
303. In situ measurement of dissolved hydrogen during the liquid-phase hydrogenation of nitriles - method and case study
P. Schäringer, M. Meyberg, T.E. Müller, W. Kaltner, and J. A. Lercher, *Ind. Eng. Sci.*, 44, 9770 (2005).
304. Activity and selectivity control in reductive amination of butyraldehyde over noble metal catalysts
J. Bódis, R. Pestman, L. Lefferts and J. A. Lercher, *Catal. Letters*, 104, 23 (2005).
305. Ir-based additives for NO reduction and CO oxidation in the FCC regenerator: Evaluation, characterization and mechanistic studies
E.F. Iliopoulou, E. A. Efthimiadis, L. Nalbandian, I. A. Vasalos, J.-O. Barth and J.A. Lercher, *Applied Catalysis B: Environmental*, 60, 277 (2005).
306. In situ S-K-edge X-ray absorption spectroscopy for understanding and developing SO_x storage catalysts
H. Dathe, A. Jentys and J.A. Lercher, *J. Phys. Chem. B*, 109, 21842 (2005).
307. Oxidative activation of n-butane on sulfated zirconia
X. Li, K. Nagaoka, L. J. Simon, A. Hofmann, J. Sauer and J. A. Lercher, *J. Am Chem. Soc.*, 127, 16159 (2005).
308. Improving bifunctional zeolite catalysts for alkane hydroisomerization *via* gas phase sulfation
C. Woltz, A. Jentys, J. A. Lercher, *J. Catal.*, 237, 337 (2006).
309. Synthesis of highly active sulfated zirconia by sulfation with SO₃
X. Li, K. Nagaoka, R. Olindo and J.A. Lercher, *J. Catal.*, 238, 39 (2006).
310. Energetic and entropic contributions controlling the sorption of benzene in zeolites
R. R. Mukti, H. Tanaka, A. Jentys and J.A. Lercher, *Microporous and Mesoporous Materials*, 90, 284 (2006).
311. Hydroamination of 1,3-cyclohexadiene with aryl amines catalyzed with acidic form zeolites
O. Jimenez, T. E. Müller, W. Schwieger, and J. A. Lercher, *J. Catal.*, 239, 42 (2006).
312. Kinetic modeling of the gas phase ethane and propane oxidative dehydrogenation
M. Machli, C. Boudouris, S. Gaab, J. Find, A.A. Lemonidou and J.A. Lercher, *Catal. Today* 112, 53 (2006).
313. Trapping of SO_x on Ca-Al based novel high capacity sorbents
H. Dathe, S. Fricke, A. Jentys and J.A. Lercher, *PCCP*, 8, 1601 (2006).

314. Markownikoff and anti-Markownikoff hydroamination with palladium catalysts immobilized in thin films of silica supported ionic liquids
O. Jimenez, T. E. Müller, C. Sievers, A. Spirkel, and J. A. Lercher, *Chem. Comm.*, 2974 (2006).
315. On the interaction of light amines and alcohols with alkali metal exchanged X zeolites
R. Schenkel, R. Olindo and J.A. Lercher, *Applied Catalysis A: General.*, 307,108 (2006).
316. Xylene isomerization with surface-modified HZSM-5 zeolite catalysts: An in situ IR study
S. Zheng, A. Jentys and J. A. Lercher, *J. Catal.*, 241, 304 (2006).
317. LaCl₃-based catalysts for oxidative chlorination of CH₄
E. Peringer, S.G. Podkolzin, M.E. Jones, R. Olindo and J. A. Lercher, *Topics in Catalysis* 38, 211 (2006).
318. SO_x storage materials under lean-rich cycling conditions – Part I: Identification of transient species
H. Dathe, P. Haider, A. Jentys, J. A. Lercher, *J. Phys. Chem. B*, 110, 10729 (2006).
319. Activation of light alkanes on sulfated zirconia
R. Olindo, X. Li and J. A. Lercher, *CIT*, 78, 1053 (2006).
320. On the sticking probability of aromatic molecules on zeolites
A. Jentys, R. R. Mukti and J. A. Lercher, *J. Phys. Chem. B*, 110, 17691 (2006).
321. Formation of solvent cages around organometallic complexes in thin films of supported ionic liquid
C. Sievers, O. Jimenez, T. E. Müller, S. Steuernagel, and J. A. Lercher, *J. Am Chem. Soc.*, 128, 13990 (2006).
322. Spectroscopic characterization of cobalt-containing mesoporous materials
T. Vralstad, W. R. Glomm, M. Ronning, H. Dathe, A. Jentys, J.A. Lercher, G. Oye, M. Stocker, and J. Sjöblom, *J. Phys. Chem. B* 110, 5386- (2006).
323. Influence of the activation temperature on the physicochemical properties and catalytic activity of La-X zeolites for isobutane/cis-2-butene alkylation
A. Guzman, I. Zuazo, A. Feller, R. Olindo, C. Sievers and J. A. Lercher, *Microporous and Mesoporous Materials*, 97, 49 (2006).
324. SO_x storage materials under lean-rich cycling conditions – Part II: Influence of Pt, H₂O and cycle length
H. Dathe, P. Haider, A. Jentys and J. A. Lercher, *J. Phys. Chem. B*, 110, 26024 (2006).
325. Tailoring Raney-catalysts for the selective hydrogenation of butyronitrile to n-butylamine
A. Chojecki, M. Veprek-Heijman, Th. E. Müller, P. Schärringer, S. Veprek and J. A. Lercher, *J. Catal.* 245, 237 (2007).
326. Surface chemistry and kinetics of the hydrolysis of isocyanic acid on anatase
P. Hauck, A. Jentys and J. A. Lercher, *Applied Catalysis B: Environmental*, 70, 91 (2007).
327. Stages of aging and deactivation of zeolite LaX in isobutane/2-butene alkylation
C. Sievers, I. Zuazo, A. Guzman, R. Olindo, H. Syska and J. A. Lercher, *J. Catal.*, 246,315 (2007).
328. Low-temperature activation of branched octane isomers over lanthanum-exchanged zeolite X catalysts
C. Sievers, A. Onda, A. Guzman, K. S. Otillinger, R. Olindo, and J. A. Lercher, *J. Phys. Chem. C*, 111, 210 (2007).
329. Methyl chloride production from methane over lanthanum-based catalysts
S. G. Podkolzin, E. E. Stangland, M. E. Jones, E. Peringer and J. A. Lercher, *J. Am. Chem. Soc.*, 129, 2569 (2007).
330. Tailoring adsorption-desorption properties of hydroamination catalysts with ionic liquids
O. Jimenez, T.E. Müller and J.A. Lercher, *ACS Symp. Ser.* 950, 267 (2007).
331. Characterization of Cr-MCM-41 and Al-Cr-MCM-41 materials as catalysts for gas-phase oxidative dehydrogenation of cyclohexane
M. Lezanska, G. S. Szymanski, P. Pietrzyk, and J. A. Lercher, *J. Phys. Chem. C*, 111, 1830 (2007).
332. Influence of the calcination procedure on the catalytic properties of sulfated zirconia
Xuebing Li, K. Nagaoka, L. J. Simon, R. Olindo and J.A. Lercher, *Catal. Lett.*, 113, 34 (2007).
333. Adsorption of branched alkanes on H-LaX
C. Sievers, A. Onda, R. Olindo and J. A. Lercher, *J. Phys. Chem. C*, 111, 5454 (2007).

334. Orientation of alkyl-substituted aromatic molecules during sorption in the pore of MFI zeolites
R. R. Mukti, A. Jentys and J. A. Lercher, *J. Phys. Chem. C*, 111, 3973 (2007).
335. Variable temperature IR study on the surface acidity of variously treated sulfated zirconias
O. V. Manoilova, R. Olindo, C. Otero Areán and J. A. Lercher, *Catalysis Communications*, 8, 865 (2007).
336. Oxidative dehydrogenation of ethane over Dy₂O₃/MgO supported LiCl containing eutectic chloride catalysts
B. Tope, Y. Zhu and J. A. Lercher, *Catalysis Today*, 123, 113 (2007).
337. The energetic and entropic contributions controlling the orientation of alkyl substituted aromatic molecules in the pores of MFI zeolites
A. Jentys, R. R. Mukti and J. A. Lercher, *Stud. Surf. Sci. Catal.* 170, 926 (2007).
338. Surface chemistry of branched alkanes on lanthanum exchanged zeolite X
C. Sievers, A. Onda, A. Guzman, R. Olindo and J.A. Lercher, *Stud. Surf. Sci. Catal.* 170, 1153 (2007).
339. Mechanism of n-butane activation and isomerization on sulfated zirconia model systems - An integrated study across the materials and pressure gaps
C. Breitung, H. Papp, X. Li, R. Olindo, J. A. Lercher, R. Lloyd, S. Wrabetz, F. C. Jentoft, K. Meinel, S. Förster, K.-M. Schindler, H. Neddermeyer, W. Widdra, A. Hofmann and J. Sauer, *PCCP*, 9, 3600 (2007).
340. Strong Brønsted acidity in amorphous silica-aluminas
B. Xua, C. Sievers, J. A. Lercher, R A.L. van Veen, R. Prins, and J. A. van Bokhoven, *J. Phys. Chem C* 111, 12075 (2007).
341. On the quantitative aspects of hydrolysis of isocyanic acid on TiO₂
P. Hauck, A. Jentys and J. A. Lercher, *Catal Today*, 127, 165 (2007).
342. Hydrogenation of tetralin on silica-alumina supported Pt catalysts I - Physicochemical characterization of the catalytic materials
M.F. Williams, B. Fonfó, C. Sievers, A. Abraham, J.A. van Bokhoven, A. Jentys, J.A.R. van Veen and J.A. Lercher, *J. Catalysis*, 251, 485 (2007).
343. Hydrogenation of tetralin on silica-alumina supported Pt catalysts II Influence of the Support on the Catalytic Activity
M.F. Williams, B. Fonfó, C. Woltz, A. Jentys, J.A.R. van Veen and J.A. Lercher, *J. Catalysis*, 251, 497 (2007).
344. Infrared and Raman spectroscopy for characterizing zeolites
J. A. Lercher and A. Jentys, *Stud. Surf. Sci. Catal.*, 168, 435, (2007).
345. Kinetics and mechanism of the oxidative dehydrogenation of ethane over Li/Dy/Mg/O/Cl mixed oxide and chloride catalysts
S. Gaab, J. Find, T. E. Müller, and J. A. Lercher, *Topics in Catalysis*, 46, 101 (2007).
346. Palladium catalysts immobilized in thin films of ionic liquid for the direct addition of aniline to styrene
C. Sievers, O. Jimenez, R. Knapp, T. E. Müller, X. Lin, B. Wierczinski, A. Türlér and J. A. Lercher, *J. Mol. Catal. A: Chemical*, 279, 187 (2008).
347. Surface transport processes and sticking probability of aromatic molecules in HZSM-5
S. J. Reitmeier, R. R. Mukti, A. Jentys and J. A. Lercher, *J. Phys. Chem. C*, 112, 2538 (2008).
348. Catalytic test reactions for probing the acidity and basicity of zeolites
J. A. Lercher, A. Jentys, and A. Brait, *Molecular Sieves - Science and Technology* 6, 153 (2008).
349. Investigations into the mechanism of the liquid-phase hydrogenation of nitriles over Raney-Co catalysts
P. Schäringer, T. E. Müller, and J. A. Lercher, *J. Catal.*, 253, 167 (2008).
350. Oxidative reforming of n-butane triggered by spontaneous oxidation of CeO_{2-x} at ambient temperature
K. Nagaoka, K. Sato, H. Nishiguchi, Y. Takita, and J.A. Lercher, *Chemistry of Materials*, 20, 4176 (2008).
351. Comparison of zeolites LaX and LaY as catalysts for isobutane/2-butene alkylation
C. Sievers, J. S. Liebert, M. Stratmann, R. Olindo and J. A. Lercher, *Applied Catalysis A: General* 336, 89 (2008).
352. On the synthesis of LaCl₃ catalysts for oxidative chlorination of methane
E. Peringer, C. Tejuja, M. Salzinger, A. Lemonidou and J.A. Lercher, *Appl. Catalysis A, General* 350, 178 (2008).

353. Oxidative dehydrogenation of light alkanes on supported molten alkali metal chloride catalysts
C. P. Kumar, S. Gaab, T. E. Müller and J. A. Lercher, *Topics in Catalysis.*, 50, 156 (2008).
354. Single step preparation of novel hydrophobic composite films for low-k applications
Y. Zhu, T. E. Müller, and J. A. Lercher, *Advanced Functional Materials*, 18, 178 (2008).
355. Experimental and theoretical investigation of the sticking probability of aromatics on HZSM-5 and SiO₂
Stud. Surf. Sci. Catal. 174, 585 (2008).
356. Enhancing sorption rates in HZSM-5 by post-synthetic surface modification
S. J. Reitmeier, D. Bülischen, O. C. Gobin, A. Jentys and J. A. Lercher, *Angewandte Chemie*, 48, 533 (2009).
357. Identification of reaction intermediates during hydrogenation of CD₃CN on Raney-Co
P. Schäringer, T. E. Müller, A. Jentys, A. Suppan and J. A. Lercher, *J. Catal.*, 263, 34 (2009).
358. Impact of supported ionic liquids on supported Pt catalysts
R. Knapp, A. Jentys and J. A. Lercher, *Green Chemistry*, 11, 656 (2009).
359. Highly selective catalytic conversion of phenolic bio-oil to alkanes
C. Zhao, Y. Kou, A. A. Lemonidou, X. Li, and J. A. Lercher, *Angewandte Chemie (Int. Ed.)*, 48, 3987 (2009).
360. Effect of chromium migration from metallic supports on the activity of diesel exhaust catalysts
W. Kaltner, A. Jentys and J. A. Lercher, *Appl. Catalysis B, Environmental* 89, 123 (2009).
361. Modified lanthanum catalysts for oxidative chlorination of methane
E. Peringer, M. Salzinger, M. Hutt, A. A. Lemonidou and J. A. Lercher, *Topics in Catalysis*, 52, 1220 (2009).
362. Diffusion pathways of benzene, toluene and p-xylene in MFI
O. C. Gobin, S. J. Reitmeier, A. Jentys and J. A. Lercher, *Microporous and Mesoporous Materials*, 125, 3 (2009).
363. Influence of post-synthetic surface modification on shape selective transport of aromatic molecules in HZSM-5
S. J. Reitmeier, O. C. Gobin, A. Jentys and J. A. Lercher, *J. Phys. Chem. C*, 113, 15355 (2009).
364. Comparison of the transport of aromatic compounds in small and large MFI particles
O. C. Gobin, S. J. Reitmeier, A. Jentys and J. A. Lercher, *J. Phys. Chem. C*, 113, 20435 (2009).
365. Hydrodeoxygenation of bio-derived phenols to hydrocarbons using Raney Ni and Nafion/SiO₂ catalysts
C. Zhao, Y. Kou, A. A. Lemonidou, X. Li, and J. A. Lercher, *Chem. Comm.*, 46, 412 (2010).
366. Towards understanding the bifunctional hydrodeoxygenation and aqueous phase reforming of glycerol
A. Wawrzetz, B. Peng, A. Hrabar, A. Jentys, A. A. Lemonidou and J.A. Lercher, *J. Catalysis*, 269, 411 (2010).
367. Catalytic methylation of phenol on MgO – surface chemistry and mechanism
F. Cavani, L. Maselli, S. Passeri, and J.A. Lercher, *J. Catal.*, 269, 340 (2010).
368. Influence of alkali carbonates on benzyl phenyl ether cleavage pathways in superheated water
V. Roberts, S. Fendt, A. A. Lemonidou, J. A. Lercher, *Appl. Catal. B, Environmental*, 95, 71 (2010).
369. Using tomography for exploring complex structured emission control catalysts
W. Kaltner, K. Lorenz, B. Schillinger, A. Jentys and J. A. Lercher, *Catal. Lett.* 134, 24 (2010).
370. Effect of H₂ in the synthesis of COS using liquid sulfur and CO or CO₂ as reactants
C. Kaufmann, O. Gutiérrez, Y. Zhu and J.A. Lercher, *Research on Chemical Intermediates*, 36, 211 (2010).
371. Combined TPRx, in situ GISAXS and GIXAS studies of model semiconductor-supported platinum catalysts in the hydrogenation of ethene
S. A. Wyrzgol, S. Schäfer, S. Lee, B. Lee, M. Di Vece, X. Li, S. Seifert, R. E. Winans, M. Stutzmann, J.A. Lercher, S. Vajda, *Phys. Chem. Chem. Phys.*, 12, 5585 (2010).
372. Platinum nanoparticles deposited on wide-bandgap semiconductor surfaces for catalytic applications
S. Schäfer, S. A. Wyrzgol, Y. Wang, J.A. Lercher, and M. Stutzmann, *Phys. Status Solidi C* 7, 411 (2010).

373. Corrugated ionic liquid surfaces with embedded polymer stabilized platinum nanoparticles
R. Knapp, M. Kitzing, H. Morgner, T. E. Müller, M. Reichelt, and J. A. Lercher, *J. Phys. Chem. C.*, 114, 13722 (2010).
374. Catalytically active sites of supported Pt catalysts for hydrogenation of tetralin in the presence of dithiophene and quinoline
M.F. Williams, B. Fonfé, A. Jentys, C. Breitung, J.A.R. van Veen and J.A. Lercher, *J. Phys. Chem. C.*, 114, 14532 (2010).
375. Impact of forming and modification with phosphoric acid on the acid sites of HZSM-5
N. Xue, R. Olindo, and J. A. Lercher, *J. Phys.Chem. C.*, 114, 15763 (2010).
376. Coordination modulation induced synthesis of nanoscale $\text{Eu}_{1-x}\text{Tb}_x$ -metal-organic frameworks for luminescent thin films
H. Guo, Y. Zhu, S. Qiu, J.A. Lercher and H. Zhang, *Advanced Materials*, 22, 4190 (2010).
377. Understanding transport in MFI-type zeolites on a molecular basis
S. J. Reitmeier, A. Jentys, and J. A. Lercher, *Ideas in Chemistry and Molecular Sciences - Advances in Nanotechnology, Materials and Devices*, B. Pinatero, Editor, pp. 231, Wiley VCH, Weinheim (2010).
378. Selective hydrolysis of diphenyl ether in supercritical water catalyzed by alkaline carbonates
V. M. Roberts, R. T. Knapp, X. Li and J. A. Lercher, *ChemCatChem*, 2, 1407 (2010).
379. Stability of zeolites in hot liquid water
R. M. Ravenelle, F. Schüßler, A. D'Amico, N. Danilina, J. A. van Bokhoven, J. A. Lercher, C. W. Jones, C. Sievers, *J. Phys.Chem. C.*, 114, (2010).
380. Water-gas shift catalysts based on ionic liquid mediated supported Cu nanoparticles
R. Knapp, S. A. Wyrzgol, A. Jentys and J. A. Lercher, *J. Catal.*, 276, 280 (2010).
381. Phase formation and selective oxidation of propane over MoVTaNbOx catalysts with varying compositions
F.N. Naraschewski, C. Praveen Kumar, A. Jentys, and J.A. Lercher, *Appl. Catal. A.*, 391, 63 (2011).
382. On the influence of pore geometry and acidity on the activity of parent and modified zeolites in the synthesis of methylenedianiline
M. Salzinger, M. B. Fichtl, and J. A. Lercher, *J. Appl. Catal. A.*, 393, 189 (2011).
383. Role of the surface modification on the transport of hexane isomers in ZSM-5
O. C. Gobin, S. J. Reitmeier, A. Jentys, and J. A. Lercher, *J. Phys. Chem. C.*, 115, 1171 (2011).
384. Adsorption of C_2 – C_8 n-alkanes in zeolites
B. de Moor, M.F. Reyniers, O. Gobin, J.A. Lercher and G. Marin, *J. Phys. Chem. C.*, 115, 1204 (2011).
385. Reaction network and mechanism of the synthesis of methylenedianiline over dealuminated Y-type zeolites
M. Salzinger and J.A. Lercher, *Green Chemistry*, 13, 149 (2011).
386. Co and Mn polysiloxanes as unique initiator-catalyst-systems for the selective liquid phase oxidation of o-xylene
T. Förster, S. A. Schunk, A. Jentys, and J. A. Lercher, *Chem. Comm.*, 47, 3254 (2011).
387. Nanoporous glass as a model system for a consistency check of the different techniques of diffusion measurement
C. Chmelik, D. Enke, P. Galvosas, O. Gobin, A. Jentys, H. Jobic, J. Kärger, C. B. Krause, J. Kullmann, J. Lercher, S. Naumov, D.M. Ruthven, T. Titze, *PCCP*, 12, 1130 (2011).
388. Aqueous-phase hydrodeoxygenation of bio-derived phenols to cycloalkanes
C. Zhao, J. He, A.A. Lemonidou, X. Li, J.A. Lercher, *J. Catal.*, 280, 8 (2011).
389. Steaming of zeolite BEA and its effect on acidity – a comparative NMR and IR spectroscopic study
S.M. Maier, A. Jentys, J.A. Lercher, *J. Phys. Chem. C.*, 115, 8005 (2011).
390. Diffusion in circularly ordered mesoporous silica fibers
H. Alsyouri, O. C. Gobin, A. Jentys, J. A. Lercher, *J. Phys. Chem. C.*, 115, 8602 (2011).
391. Hierarchically structured millimeter sized (organo) silica spheres with a macroporous shell and a meso/microporous core
S. Scholz, and J. A. Lercher, *Chemistry of Materials*, 23, 2091 (2011).
392. One step synthesis of organofunctionalized transition metal containing meso- and macroporous silica spheres
T. Förster, S. Scholz, Y. Zhu, J. A. Lercher, *Microporous and Mesoporous Materials*, 142, 464 (2011).

393. On the acid base properties of Zn-Mg-Al mixed oxides
M.C.I. Bezen, C. Breitkopf and J. A. Lercher, *Appl. Catal. A.*, 399, 93 (2011).
394. Materials with tunable low-k dielectric constant derived from functionalized octahedral silsesquioxanes and spherosilicates
F. Eckstorff, Y. Zhu, R. Maurer, T. E. Müller, S. Scholz, and J. A. Lercher, *Polymer*, 52, 2492 (2011).
395. Towards quantitative catalytic lignin depolymerization
V. M. Roberts, V. Stein, T. Reiner, A. Lemonidou, J. A. Lercher, *Chem. Eur. J.*, 17, 5939 (2011).
396. Synthesis of methyl mercaptan from carbonyl sulfide over sulfide K_2MoO_4/SiO_2
O. Gutiérrez, C. Kaufmann, A. Hrabar, Y. Zhu and J.A. Lercher, *J. Catal.*, 280, 264 (2011).
397. Determination of the oxidation state of iron cations in FeBEA catalysts during the NH_3 -SCR reaction by Mössbauer and X-ray absorption spectroscopy
S. M. Maier, A. Jentys, E. Metwalli, P. Müller-Buschbaum, J. A. Lercher, *J. Phys. Chem. Lett.*, 2, 950 (2011).
398. Selective modification of the acid-base properties of ceria by supported Au
M.C.I. Bezen, C. Breitkopf, N. El Kolli, J.-M. Kraft, C. Louis and J. A. Lercher, *Chem. Eur. J.*, 17, 7095 (2011).
399. A comparative study of Diffusion of benzene/p-xylene mixtures in MFI particles, pellets and grown membranes
R. Kolvenbach, N. Al-Yassir, S. S. Al-Khattaf, O. C. Gobin, J. H. Ahn, A. Jentys, J. A. Lercher, *Catal. Today*, 168, 147 (2011).
400. On the role of the vanadium distribution in MoVTaNbOx mixed oxides for the selective catalytic oxidation of propane
F.N. Naraschewski, A. Jentys, J.A. Lercher, *Topics in Catalysis*, 54, 639 (2011).
401. Selective poisoning of the direct denitrogenation route in o-propylaniline HDN by DBT on Mo and NiMo/ γ - Al_2O_3 sulfide catalysts
A. Hrabar, J. Hein, O.Y. Gutiérrez, J. A. Lercher, *J. Catal.*, 281, 325 (2011).
402. Controlled one-step synthesis of hierarchically structured macroscopic silica spheres
S. Scholz, S. R. Bare, S. D. Kelly, J. A. Lercher, *Microp. Mesopor. Mater.*, 146, 18 (2011).
403. Influence of fluoride anions on the acid - base properties of Mg/Al mixed oxides
M.C.I. Bezen, C. Breitkopf and J. A. Lercher, *ACS Catalysis*, 1, 1384 (2011).
404. Selective liquid phase oxidation of o-xylene with gaseous oxygen by transition metal containing polysiloxane initiator-catalyst-systems
T. Förster, S.A. Schunk, A. Jentys, J. A. Lercher, *J. Catal.*, 283, 25 (2011).
405. C-H activation of alkanes in selective oxidation reactions on solid oxide catalysts
J.A. Lercher and F. Naraschewski, in "Nanostructured catalysts: Selective oxidation reactions", RSC Publishing, Christian Hess and Robert Schlögl Eds. pp.1 (2011).
406. Influence of potassium on the synthesis of methanethiol from carbonyl sulfide on sulfided Mo/ Al_2O_3 catalyst
O.Y. Gutiérrez, C. Kaufmann, and J. A. Lercher, *ChemCatChem.*, 3, 1480 (2011).
407. Nature and location of cationic lanthanum species in high alumina containing faujasite type zeolites
F. Schüßler, E. A. Pidko, R. Kolvenbach, C. Sievers, E. J.M. Hensen, R. A. van Santen, J. A. Lercher, *J. Phys. Chem. C*, 115, 21763 (2011).
408. Synthesis of methanethiol from carbonyl sulfide and carbon disulfide on (Co)K-promoted sulfide Mo/ SiO_2 catalysts
O. Y. Gutiérrez, C. Kaufmann, and J. A. Lercher, *ACS Catalysis*, 1, 1595 (2011).
409. Selective hydrodeoxygenation of lignin derived substituted mono- and bi-phenols to cycloalkanes on Pd/C and HZSM-5 catalysts
C. Zhao and J. A. Lercher, *ChemCatChem.*, 4, 64 (2012).
410. Towards quantitative conversion of microalgae oil to diesel range alkanes with dual functional catalysts
B. Peng, Y. Yao, C. Zhao and J. A. Lercher, *Angew. Chem. Int. Ed.*, 51, 2072 (2012).
411. Unique Dynamic Changes of Fe Cationic Species under NH_3 -SCR Conditions
S. M. Maier, A. Jentys, M. Janousch, J. A. van Bokhoven, J. A. Lercher, *J. Phys. Chem. C.*, 116, 5846 (2012).

412. Comparison of kinetics and reaction pathways for hydrodeoxygenation of C₃ alcohols on Pt/Al₂O₃
B. Peng, C. Zhao, I. Mejía-Centeno, G. A. Fuentes, A. Jentys, and J. A. Lercher, *Catal. Today*, 183, 3 (2012).
413. Selective catalytic hydroalkylation and deoxygenation of substituted phenols to bicycloalkanes
C. Zhao, D. Camaioni and J. A. Lercher, *J. Catal.*, 288, 92 (2012).
414. Bimetallic Pt-Pd/silica-alumina hydrotreating catalysts Part I. Physicochemical characterization
Y. Yu, B. Fonf , A. Jentys, G. L. Haller, J. A. R van Veen, O. Y. Guti rrez, J. A. Lercher, *J. Catal.* 292, 1 (2012).
415. Bimetallic Pt-Pd/silica-alumina hydrotreating catalysts Part II. Hydrogenation of tetralin in the presence of dibenzothiophene and quinoline
Y. Yu, B. Fonf , A. Jentys, G. L. Haller, J. A. R van Veen, O. Y. Guti rrez, J. A. Lercher, *J. Catal.*, 292, 13 (2012).
416. Upgrading pyrolysis oil over Ni/HZSM-5 by cascade reactions
C. Zhao and J. A. Lercher, *Angew. Chem. Int. Ed.*, 51, 5935, (2012).
417. Stabilizing catalytic pathways via redundancy - selective catalytic reduction of microalgae oil to alkanes
B. Peng, X. Yuan, C. Zhao, J. A. Lercher, *J. Am. Chem. Soc.* 134, 9400 (2012).
418. Support effects in the aqueous phase reforming of glycerol over supported platinum catalysts
A. Ciftci, B. Peng, A. Jentys, J. A. Lercher, E.J.M. Hensen, *Appl. Catal. A.*, 431, 113 (2012).
419. Platinum nanoparticles on gallium nitride surfaces: effect of semiconductor doping on nanoparticle reactivity
S. Sch fer, S. Wyrzgo, R. Caterino, S. Schoell, A. Jentys, M. H vecker, A. Knop-Gericke, J.A. Lercher, I. Sharp, M. Stutzmann, *J. Am. Chem. Soc.*, 134, 12528 (2012).
420. Ring opening of 1,2,3,4-tetrahydroquinoline and decahydroquinoline on MoS₂/γ-Al₂O₃ and NiMoS/γ-Al₂O₃
O. Y. Guti rrez, A. Hrabar, J. Hein, Y. Yu, J. Han and J. A. Lercher, *J. Catal.*, 295, 155 (2012).
421. Controlled synthesis of platinum loaded hierarchic silica spheres
S. Scholz, H. Shi and J. A. Lercher, *Topics in Catalysis*, 55, 800 (2012).
422. Dealumination of HZSM-5 via steam-treatment
L. H. Ong, M. D m k, R. Olindo, A. C. van Veen, J.A. Lercher, *Microporous and Mesoporous Materials*, 164, 9 (2012).
423. Active sites and reactive intermediates in the hydrogenolytic cleavage of C-C bonds in cyclohexane over supported iridium
H. Shi; X. Li, G. L. Haller, O. Y. Guti rrez and J.A. Lercher, *J. Catal.*, 295, 133 (2012).
424. On the location, strength and accessibility of Br nsted acid sites in hierarchical ZSM-5 particles
D. Tzoulaki, A. Jentys, J. Perez-Ramirez, C.H. Christensen, J. A. Lercher, *Catalysis Today*, 198, 3 (2012).
425. Comparison of kinetics, activity and stability of Ni/HZSM-5 and Ni/Al₂O₃-HZSM-5 for phenol hydrodeoxygenation
C. Zhao, S. Kasakov, J. He, J.A. Lercher, *J. Catal.*, 296, 12 (2012).
426. Ni-catalyzed cleavage of aryl ethers in the aqueous phase
J. He, C. Zhao, J.A. Lercher, *J. Am. Chem. Soc.* 134, 20768 (2012).
427. Aqueous phase hydroalkylation and hydrodeoxygenation of phenol by dual functional catalysts of Pd/C and H/La-BEA
C. Zhao, W. Song, J. A. Lercher, *ACS Catalysis*, 2, 2714 (2012).
428. Structure sensitivity of hydrogenolytic cleavage of endocyclic and exocyclic C-C bonds in methylcyclohexane over supported iridium particles
H. Shi, O. Y. Guti rrez, G. L. Haller, D. Mei, R. Rousseau, J. A. Lercher, *J. Catal.*, 297, 70 (2013).
429. Understanding the impact of aluminum oxide binder on Ni/HZSM-5 catalysts
C. Zhao, Y. Yu, A. Jentys, J. A. Lercher, *Appl. Catal B: Environmental* 132-133, 282 (2013).
430. Sorption and diffusion parameters from vacuum-TPD of ammonia on H-ZSM-5
S.K. Kouva, J.M. Kanervo, F. Sch b ler, R. Olindo, J.A. Lercher, A.O.I. Krause, *Chem. Eng. Sci.*, 89, 40 (2013).
431. Characterization of Fe-exchanged BEA zeolite under NH₃-SCR conditions
J. Kim, A. Jentys, S. M. Maier, J. A. Lercher, *J. Phys. Chem. C.*, 117, 986 (2013).

432. Catalytic consequences of particle size and chloride promotion in the ring-opening of cyclopentane on Pt/Al₂O₃
H. Shi, O. Y. Gutiérrez, H. Yang, N.D. Browning, G. L. Haller, J. A. Lercher, *ACS Catalysis*, 3, 328 (2013).
433. Catalytic depolymerization and upgrading of lignin
C. Zhao, J.A. Lercher, in "The Role of Catalysis for the Sustainable Production of Bio-fuels and Bio-chemicals" pp 291, Triantafyllidis et al. Eds., Elsevier (2013).
434. Oxidative dehydrogenation of ethane - Common principles and mechanistic aspects
C.A. Gärtner, A. C. van Veen, J. A. Lercher, *ChemCatChem*, 5, 3196 (2013).
435. Manipulating catalytic pathways - Catalytic deoxygenation of palmitic acid on multi-functional catalysts
B. Peng, C. Zhao, S. Kasakov, S. Foraita, J. A. Lercher, *Chemistry-A European Journal*, 19, 4732 (2013).
436. Methanol usage in toluene methylation with medium and large pore zeolites
J. H. Ahn, R. Kolvenbach, S. S. Al-Khattaf, A. Jentys and J.A. Lercher, *ACS Catalysis*, 3, 817 (2013).
437. Dynamic self-organization of supported Pd/Au catalysts during vinyl acetate synthesis
S. Simson, A. Jentys and J. A. Lercher, *J. Phys. Chem. C.*, 117, 8161 (2013).
438. Charge transfer across the GaN/Pt nanoparticle interface in electrolyte
S. Schäfer, S.A. Wyrzgol, J.A. Lercher, M. Stutzmann, I.D. Sharp, *ChemCatChem*, 5, 3224 (2013).
439. Tailoring silica-alumina supported Pt-Pd as poison tolerant catalysts for aromatics hydrogenation
Y. Yu, A. Jentys, G. L. Haller, R. Colby, B. Kabius, O. Y. Gutiérrez, J. A. Lercher, *J. Catal.*, 304, 135 (2013).
440. Importance of size and distribution of Ni nano particles for the hydrodeoxygenation of microalgae oil
W. Song, C. Zhao, J.A. Lercher, *Chemistry-A European Journal*, 19, 9833 (2013).
441. Catalytic deoxygenation of microalgae oil to green hydrocarbons,
C. Zhao, T. Brück, J.A. Lercher, *Green Chemistry*, 15, 1720 (2013).
442. Hydrogenation of tetralin over Pt catalysts supported on sulfated zirconia and amorphous silica alumina
O.Y. Gutiérrez, Y. Yu, R. Kolvenbach, G. L. Haller, J. A. Lercher, *Cat. Sci. Techn.*, 3, 2365 (2013).
443. Formation of CO₂ and ethane from propionyl over platinum - A DFT study
D. Basaran, A. Genest, J. A. Lercher, N. Rösch, *ACS Catalysis*, 3, 1730 (2013).
444. Acetic acid reforming over Rh supported on La₂O₃/CeO₂/ZrO₂ - Catalytic performance and reaction pathway analysis
A. A. Lemonidou, E. C. Vagia, J. A. Lercher, *ACS Catalysis*, 3, 1919 (2013).
445. State of supported Pd during catalysis in water
Z. Chase, J.L. Fulton, V. Pham, D. M. Camaioni, M. Balasubramanian, D. Mei, R. Weber, C. Zhao, J. A. Lercher, *J. Phys. Chem. C.*, 117, 17603 (2013).
446. Synthesis of methanethiol from CS₂ on Ni-, Co-, and K-doped MoS₂/SiO₂ catalysts
O.Y. Gutiérrez, L. Zhong, Y. Zhu, J. A. Lercher, *ChemCatChem*, 5, 3249 (2013).
447. Enhancing shape selectivity without loss of activity – novel mesostructured ZSM5 catalysts for methylation of toluene to p-xylene
J.H. Ahn, R. Kolvenbach, S. S. Al-Khattaf, A. Jentys, J. A. Lercher, *Chem. Comm.* 49, 10584 (2013).
448. Molecular understanding of sorption in mesoscale organized zeolites with MFI structure
R. Kolvenbach, L.F. Gonzalez-Peña, S.J. Reitmeyer, A. Jentys, J.A. Lercher, *Catal. Lett.*, 143, 1116 (2013).
449. γ -Al₂O₃-supported and unsupported (Ni)MoS₂ for hydrodenitrogenation of quinoline in the presence of dibenzothiophene
J. Hein, A. Hrabar, A. Jentys, O. Y. Gutiérrez, J. A. Lercher, *ChemCatChem*, 6, 485 (2014)
450. Mechanisms of selective cleavage of C–O bonds in di-aryl ethers in aqueous phase
J. He, C. Zhao, D. Mei, J. A. Lercher, *J. Catal.* 309, 280 (2014).
451. Impact of solvent for individual steps of phenol hydrodeoxygenation with Pd/C and HZSM-5 as catalysts
J. He, C. Zhao, J. A. Lercher *J. Catal.*, 309, 362 (2014).

452. Mechanisms of catalytic cleavage of benzyl phenyl ether in the aqueous and apolar phases
J. He, C. Zhao, D. Mei, J. A. Lercher, *J. Catal.* 311, 41 (2014).
453. Following solid acid catalyzed reactions by MAS NMR spectroscopy in liquid phase – Zeolite catalyzed conversion of cyclohexanol in water
A. Vjunov, M. Y. Hu, J. Feng, D. M. Camaioni, D. Mei, J. Z. Hu, C. Zhao, J. A. Lercher, *Angew. Chem. Int. Ed.*, 53, 479 (2014).
454. Tailoring mesoscopically structured H-ZSM5 zeolites for toluene methylation
J.H. Ahn, R. Kolvenbach, S. S. Al-Khattaf, A. Jentys, J. A. Lercher, *J. Catal.* 311, 271 (2014).
455. Reversibility of the modification of HZSM-5 with phosphate anions
M. Derewinski, P. Sarv, X. Sun, S. Müller, A. C. van Veen, J. A. Lercher, *J. Phys. Chem. C*, 118, 6122 (2014).
456. On the impact of co-feeding aromatics and olefins for the methanol to olefins reaction on HZSM-5
X. Sun, S. Müller, H. Shi, G.L. Haller, M. Sanchez-Sanchez, A. C. van Veen, J.A. Lercher, *J. Catal.*, 314, 21 (2014).
457. Diffusion of mixtures of light alkanes and benzene in nano-sized H-ZSM5
R. Kolvenbach, L.F. Gonzalez Peña, A. Jentys and J. A. Lercher, *J. Phys. Chem. C*, 118, 8424 (2014).
458. Structure–activity relationships of Nickel–hexaaluminates in reforming reactions Part I: Controlling Nickel nanoparticle growth and phase formation
T. Roussi re, K. M. Schelkle, S. Titlbach, G. Wasserschaff, A. Milanov, G. Cox, E. Schwab, O. Deutschmann, L. Schulz, A. Jentys, J.A. Lercher, S. A. Schunk, *ChemCatChem*, 6, 1438 (2014).
459. Structure–activity relationships of Nickel–hexaaluminates in reforming reactions Part II: Activity and stability of nanostructured Nickel–hexaaluminate-based catalysts in the dry reforming of methane
T. Roussi re, K. M. Schelkle, S. Titlbach, G. Wasserschaff, A. Milanov, G. Cox, E. Schwab, O. Deutschmann, L. Schulz, A. Jentys, J.A. Lercher, S. A. Schunk, *ChemCatChem*, 6, 1447 (2014).
460. Polymer coated PtCo nanoparticles deposited on diblock copolymer templates: Chemical selectivity versus topographical effects
E. Metwalli, I. Krisch, I. Markovits, M. Rawolle, M. Ruderer, S. Guo, S. Wyrzgol, A. Jentys, J. Perlich, J.A. Lercher, P. M ller-Buschbaum, *ChemPhysChem*, (2014).
461. Effects of the support on the performance and promotion of (Ni)MoS₂ catalysts for simultaneous hydrodenitrogenation and hydrodesulfurization
O. Y. Guti rrez, S. Singh, E. Schachtl, J. Kim, E. Kondrazieva, J. Hein, and Johannes A. Lercher, *ACS Catalysis*, 4, 1487 (2014).
462. Quantitatively probing the Al distribution in zeolites
A. Vjunov, J. L. Fulton, T. Huthwelker, S. Pin, D. Mei, G. Schenter, N. Govind, D. M. Camaioni, J. Z. Hu, J. A. Lercher, *J. Am. Chem. Soc.*, 136, 8296 (2014).
463. Tailoring hierarchically structured SiO₂ spheres for high pressure CO₂ adsorption
M.W. Hahn, M. Steib, A. Jentys, J.A. Lercher, *J. Mater. Chem. A*, 2, 13624 (2014).
464. First-principles study of phenol hydrogenation on Pt and Ni catalysts in aqueous phase
Y. Yoon, R. Rousseau, R. S. Weber, D. Mei, J.A. Lercher, *J. Am. Chem. Soc.*, 136, 10287 (2014).
465. Impact of the local environment of Br nsted acid sites in ZSM-5 on the catalytic activity in n-pentane cracking
S. Schallmoser, T. Ikuno, M.F. Wagenhofer, R. Kolvenbach, G. L. Haller, M. Sanchez-Sanchez, J.A. Lercher, *J. Catal.*, 316, 93 (2014).
466. On reaction pathways in the conversion of methanol to hydrocarbons on HZSM-5
X. Sun, S. M ller, H. Shi, G.L. Haller, M. Sanchez-Sanchez, A. C. van Veen, J.A. Lercher, *J. Catal.* 317, 185 (2014).
467. Enhancement of dehydrogenation and hydride transfer by La³⁺ cations in zeolites during acid catalyzed alkane reactions
F. Sch f ler, S. Schallmoser, H. Shi, E. Ember and J. A. Lercher, *ACS Catalysis*, 4, 1743 (2014).
468. Highly selective supported alkali chloride catalysts for the oxidative dehydrogenation of ethane
C. A. G rtner, A.C. van Veen, J.A. Lercher, *Top. Catal.* 57, 1236 (2014).
469. Oxidative dehydrogenation of ethane on dynamically rearranging supported chloride catalysts
C. A. G rtner, A. C. van Veen and J.A. Lercher, *J. Am. Chem. Soc.*, 136, 12691 (2014).

470. Mechanistic pathways for methylcyclohexane hydrogenolysis on supported Ir catalysts
H. Shi, O. Y. Gutiérrez, A. Zheng, G. L. Haller, J. A. Lercher, *J. Phys. Chem. C.*, 118, 20948 (2014).
471. Ex-situ and in-situ analysis of MoVTaNb oxide by aberration-corrected scanning transmission electron microscopy
P. Xu, M. Sanchez-Sanchez, A.C. Van Veen, N.D. Browning, J.A. Lercher, *Microscopy and Microanalysis*, 20, 108 (2014).
472. Glucose and cellulose derived Ni/C-SO₃H catalysts for liquid phase phenol hydrodeoxygenation
S. Kasakov, C. Zhao, E. Baráth, Z. A. Chase, J. L. Fulton, D. M. Camaioni, A. Vjunov, H. Shi, J. A. Lercher, *Chemistry – A European Journal*, 21, 1567 (2015).
473. Impact of surface oxygen defects and hydrogen concentrations on the reduction rates of stearic acid on Ni/ZrO₂
S. Foraita, J. L. Fulton, Z.A. Chase, A. Vjunov, E. Baráth, D. M. Camaioni, C. Zhao, J.A. Lercher, *Chemistry – A European Journal*, Chemistry – A European Journal, 21, 2423 (2015).
474. Sailing into uncharted waters: recent advances in the in situ monitoring of catalytic processes in aqueous environments
H. Shi, J.A. Lercher, X.-Y. Yu, *Cat. Sci. Technol.* 5, 3035 (2015).
475. Synergistic effects of Ni and acid sites for hydrogenation and C–O bond cleavage of substituted phenols
W. Song, Y. Liu, C. Zhao, Eszter Barath, J. A. Lercher, *Green Chemistry*.17, 1204 (2015).
476. Tailoring p-xylene selectivity in toluene methylation on medium pore-size zeolites
J.H. Ahn, R. Kolvenbach, O. Y. Gutiérrez, S.S. Al-Khattaf, A. Jentys and J. A. Lercher, *Microporous and Mesoporous Materials*, 210, 52 (2015).
477. Dynamic phase formation in supported Pd-Au
S. Simson, A. Jentys, B. Kabius, J. A. Lercher, *J.Phys.Chem.C*, 119, 2471 (2015).
478. Mechanism and kinetics of CO₂ adsorption on surface bonded amines
M.W. Hahn, M. Steib, A. Jentys, J. A. Lercher, *J. Phys. Chem. C.*, 119, 426 (2015).
479. Coke formation and deactivation pathways on H-ZSM-5 in the conversion of methanol to olefins
S. Müller, Y. Liu, M.Vishnuvarthan, X. Sun, A. C. van Veen, G. L. Haller, M. Sanchez-Sanchez, J. A. Lercher, *J. Catal.*, 325, 48 (2015).
480. Accurate adsorption thermodynamics of small alkanes in acidic zeolites. Ab initio theory and experiment
G. M. Piccini, M. Alessio, J. Sauer, Y. Zhi, Y. Liu, R. Kolvenbach, A. Jentys, J.A. Lercher, *J. Phys. Chem. C* 119, 6128 (2015).
481. Impact of aqueous medium on zeolite framework integrity
A.Vjunov, J. L. Fulton, D. M. Camaioni, J. Z. Hu, S. D. Burton, Ilke Arslan, J.A. Lercher., *Chem. Mater.*, 27, 3533 (2015).
482. Single site trinuclear copper oxygen clusters in mordenite for the selective methane to methanol conversion
S. Grundner, M. Markovits, G. Li, M. Tromp, E. A. Pidko, E.J.M. Hensen, A. Jentys, M. Sanchez-Sanchez, J. A. Lercher, *Nature Communications*, 6, 7546 (2015).
483. Determining the location and nearest neighbors of aluminum in zeolites with atom probe tomography
D.E. Perea, I. Arslan, J. Liu, Z. Ristanović, L. Kovarik, B.W. Arey, J. A. Lercher, S.R. Bare, B.M. Weckhuysen, *Nature Communications*, 6, 7589 (2015).
484. Sealed Rotors for In Situ High Temperature High Pressure MAS NMR
J.Z. Hu, M. Hu, Z. Zhao, S. Xu, A. Vjunov, H. Shi, D. M. Camaioni, C.H.F. Peden, J.A. Lercher, *Chem. Comm.*, 51, 13458 (2015).
485. Pathways for H₂ activation on (Ni)-MoS₂ catalysts
E. Schachtl, E. Kondratieva, O. Y. Gutiérrez, J. A. Lercher, *J. Phys. Chem. Lett.*, 6, 2929 (2015).
486. Prerequisites for kinetic modeling of TPD data of porous catalysts - exemplified by toluene/H-ZSM-5 system
S. Kouva, K. Kanervo, R. Kolvenbach, A. Jentys, J.A. Lercher, *Chem. Eng. Sci.*, 137, 807 (2015).
487. Impact of zeolite aging in hot liquid water for acid-catalyzed dehydration of alcohols
A. Vjunov, M.A. Derewinski, J. L. Fulton, D. M. Camaioni, J.A. Lercher, *J. Am. Chem. Soc.*, 137, 10374 (2015).

488. Onion-like graphene carbon nanospheres as stable catalysts for CO and CH₄ chlorination
G. Centi, K. Barbera, S. Perathoner, N. K. Gupta, E. E. Ember, J. A. Lercher, *ChemCatChem*, 7, 3036 (2015).
489. Reductive deconstruction of organosolv lignin catalyzed by zeolite supported Nickel nanoparticles
S. Kasakov, E. Baráth, N. Popov, D. M. Camaioni, H. Shi, J. A. Lercher, *Green Chemistry*, 17, 5079 (2015).
490. Aliphatic hydrocarbons from lignocellulose via pyrolysis over cesium modified amorphous silica alumina catalysts
M. Zabeti, K. B. Sai Sankar Gupta, S. Schallmoser, G. Raman, L. Lefferts, J.A. Lercher, K. Seshan, *ChemCatChem*, 7, 3386 (2015).
491. Atomistic engineering of catalyst precursors: dynamic reordering of PdAu nanoparticles during vinyl acetate synthesis enhanced by potassium acetate
E. K. Hanrieder, A. Jentys, J. A. Lercher, *ACS Catalysis*, 5, 5776 (2015).
492. On the coke deposition in dry reforming of methane at elevated pressures
L. A. Schulz, L. C. S. Kahle, K.H. Delgado, S. Schunk, A. Jentys, O. Deutschmann, J.A. Lercher, *J. Appl. Catal. A*, 504, 599 (2015).
493. Direct production of naphthenes and paraffins from lignin
J. Kong, M. He, J.A. Lercher, C. Zhao, *Chem. Comm.* 51, 17580 (2015).
494. Distribution of metal cations in Ni-Mo-W sulfide catalysts
J. Hein, O. Y. Gutiérrez, E. Schachtl, P. Xu, N. D. Browning, A. Jentys, J. A. Lercher, *ChemCatChem*, 7, 3692 (2015).
495. State of supported Ni nanoparticles during catalysis in aqueous media
Z. A. Chase, A. Vjunov, J. L. Fulton, D. M. Camaioni, M. Balasubramanian, H. Shi, Y. Wang, J.A. Lercher, *Chemistry A European Journal*, 21, 16541 (2015).
496. Single-Event Kinetic Model for 1-Pentene Cracking on ZSM-5
T. von Aretin, S. Schallmoser, M. Tonigold, J.A. Lercher, O. Hinrichsen, *Ind. Eng.Chem.Res.*, 54, 11792 (2015).
497. Understanding Ni promotion of MoS₂/γ-Al₂O₃ and its implications for the hydrogenation of phenanthrene
E. Schachtl, E. Kondratieva, L. Zhong, J. Hein, O. Y. Gutiérrez, A. Jentys, J. A. Lercher, *ChemCatChem*, 7, 4118 (2015).
498. Dehydration pathways of 1-propanol on H-ZSM5 in presence and absence of water
Y. Zhi, H. Shi, L. Mu, Y. Liu, D. Mei, J. A. Lercher, *J. Am. Chem. Soc.*, 137, 1578 (2015).
499. Tunable water and CO₂ sorption properties in isostructural azine-based covalent organic frameworks through polarity engineering
L. Stegbauer, M. Hahn, A. Jentys, G. Savasci, C. Ochsenfeld, J.A. Lercher, B. Lotsch, *Chemistry of Materials*, 27, 7874 (2015).
500. Bulk and γ-Al₂O₃-supported Ni₂P and MoP for hydrodeoxygenation of palmitic acid
M. Peroni, G. Mancino, E. Baráth, O.Y. Gutiérrez, J.A. Lercher, *Appl. Catal. B: Environmental*, 180, 301 (2016).
[10.1016/j.apcatb.2015.06.042]
501. Aqueous phase electrocatalysis and thermal catalysis for the hydrogenation of phenol at mild conditions
Y. Song, O.Y. Gutiérrez, J. Herranz, J.A. Lercher, *Appl. Catal. B: Environmental*, 182, 236 (2016).
[10.1016/j.apcatb.2015.09.027]
502. Impact of alkali acetate promoters on the dynamic ordering of PdAu catalysts during vinyl acetate synthesis
E. K. Hanrieder, A. Jentys, J. A. Lercher, *J. Catal.*, 333, 71 (2016).
[10.1016/j.jcat.2015.10.019]
503. Role of Amine Functionality for CO₂ Chemisorption on Silica
M. W. Hahn, J. Jelic, E. Berger, K. Reuter, A. Jentys, J. A. Lercher, *J. Phys. Chem. B.*, 120, 1988 (2016).
[10.1021/acs.jpcc.5b10012]
504. Dehydration of 1-Octadecanol over H-BEA - A Combined Experimental and Computational Study
W. Song, Y. Liu, E. Baráth, L. Wang, C. Zhao, D. Mei, J.A. Lercher, *ACS Catalysis*, 6, 878 (2016).
[10.1021/acscatal.5b01217]

505. Sintering-Resistant Single-Site Nickel Catalyst Supported by Metal–Organic Framework
Z. Li, N. M. Schweitzer, A. B. League, V. Bernales, A. W. Peters, A. B. Getsoian, T. C. Wang, J. T. Miller, A. Vjunov, J. L. Fulton, J. A. Lercher, C. J. Cramer, L. Gagliardi, J. T. Hupp, O. K. Farha, *J. Am. Chem. Soc.*, 138, 1977 (2016).
506. Bent Carbon Surface Moieties as Active Sites on Carbon Catalysts for Phosgene Synthesis
N. K. Gupta, A. Pashigreva, E.A. Pidko, E.J.M. Hensen, L. Mleczko, S. Roggan, E. E. Ember, J.A. Lercher, *Angewandte Chemie, Int. Ed.*, 55, 1728 (2016). [10.1002/anie.201508922]
507. Synthesis of single site-copper catalysts for methane partial oxidation
S. Grundner, W. Luo, M. Sanchez-Sanchez, J.A. Lercher, *Chem. Comm.*, 52, 2553 (2016). [10.1039/C5CC08371K]
[10.1021/jacs.5b12515]
508. Atomic-Scale Determination of Active Facets on the MoVTeNb Oxide M1 Phase and Their Intrinsic Catalytic Activity for Ethane Oxidative Dehydrogenation
D. Melzer, P. Xu, D. Hartmann, Y. Zhu, N. D. Browning, M. Sanchez-Sanchez, J. A. Lercher, *Angew. Chemie Int. Ed.*, 55, 8873, (2016).
[10.1002/anie201600463]
509. Photoreforming of ethylene glycol on Rh/TiO₂ and Rh/GaN:ZnO
T. F. Berto, K. E. Sanwald, W. Eisenreich, O. Y. Gutiérrez, J.A. Lercher, *J. Catal.*, 338, 68 (2016).
[10.1016/j.jcat.2016.02.021]
510. Stability and reactivity of copper oxo-clusters in ZSM-5 zeolite for selective methane oxidation to methanol
G. Li, P. Vassilev, M. Sanchez-Sanchez, J.A. Lercher, E.J.M. Hensen, E. A. Pidko, *J. Catal.*, 338, 305 (2016).
[10.1016/j.jcat.2016.03.014]
511. Formation mechanism of the first carbon-carbon bond and the first olefin in the methanol conversion into hydrocarbons
Y. Liu, S. Müller, D. Berger, J. Jelic, K. Reuter, M. Tonigold, M. Sanchez-Sanchez, J. A. Lercher, *Angew. Chemie Int. Ed.*, 55, 5732 (2016).
[10.1002/anie.201511678]
512. Improving Stability of Zeolites in Aqueous Phase via Selective Removal of Structural Defects
S. Prodingler, M. A. Derewinski, A. Vjunov, S. D. Burton, I. Arslan, J.A. Lercher, *J. Am. Chem. Soc.*, 138, 4408 (2016).
[10.1021/jacs.5b12785]
513. Impact of solvents and surfactants on the self-assembly of nano-structured amine functionalized sorbents for CO₂ capture
E. Berger, M. W. Hahn, T. Przybilla, B. Winter, E. Spiecker, A. Jentys, J. A. Lercher, *J. Energ. Chemistry*, 25, 327 (2016).
[10.1016/j.jechem.2016.02.005]
514. Anharmonicity and confinement in zeolites: structure, spectroscopy and adsorption free energy of ethanol in H-ZSM-5
K. Alexopoulos, M Lee, Y. Liu, Y. Zhi, Y. Liu, M.-F. Reyniers, G. B. Marin, V.-A. Glezakou, R. Rousseau, J. A. Lercher, *J. Phys. Chem. C.*, 120, 7172 (2016).
[10.1021/acs.jpcc.6b00923]
515. Effect of location and distribution of Al sites in ZSM-5 on the formation of Cu-oxo clusters active for direct conversion of methane to methanol
M.A.C. Markovits, A. Jentys, M. Tromp, M. Sanchez-Sanchez, J.A. Lercher, *Top. Catal.* 59, 1554 (2016).
[10.1007/s11244-016-0676-x]
516. Nitrogen Modified Carbon Nano-Materials as Stable Catalysts for Phosgene Synthesis
N. K. Gupta, B. Peng, G. L. Haller, E. E. Ember, J.A. Lercher, *ACS Catalysis*, 6, 5843 (2016).
[10.1021/acscatal.6b01424]
517. Electrocatalytic hydrogenation of phenol over platinum and rhodium: unexpected temperature effects resolved
N. Singh, Y. Song, O. Y. Gutiérrez, D. M. Camaioni, C.T. Campbell, J. A. Lercher, *ACS Catalysis*, 6, 7466 (2016).
[10.1021/acscatal.6b02296]
518. Integrated catalytic and electrocatalytic conversion of substituted phenols compounds and diaryl ethers
Y. Song, S. Chia, O. Y. Gutiérrez, U. Sanyal, J. A. Lercher, *J. Catal.*, 344, 263 (2016).
[10.1016/j.jcat.2016.09.030]

519. Enabling overall water splitting on photocatalysts by CO covered noble metal co-catalysts
T. F. Berto, K. E. Sanwald, J. P. Byers, N. D. Browning, O. Y. Gutiérrez, J. A. Lercher, *J. Phys. Chem. Lett.*, 7, 4358 (2016).
[10.1021/acs.jpcelett.6b02151]
520. Structural response of Ni/ZrO₂ to feed modulations during CH₄ reforming reactions
M. Steib, A. Jentys, J.A. Lercher, *J. Phys.: Conf. Series* 712, 012049 (2016).
[10.1088/1742-6596/712/1/012049]
521. Hydrodeoxygenation of fatty acid esters catalyzed by Ni on nano-sized MFI type zeolites
M. W. Schreiber, D. Rodriguez-Nino, O. Y. Gutiérrez, Johannes A. Lercher, *Catal. Sci. Technol.*, 6, 7976 (2016).
[10.1039/C6CY01598K]
522. Interaction of alkali acetates with silica supported PdAu
E. K. Hanrieder, A. Jentys, J. A. Lercher, *Catal. Sci. Technol.*, 6, 7203 (2016).
[10.1039/C6CY01228K]
523. Catalytic routes and oxidation mechanism in photoreforming of polyols
K. E. Sanwald, T. F. Berto, W. Eisenreich, O. Y. Gutiérrez, J. A. Lercher, *J. Catal.*, 344, 806 (2016).
[10.1016/j.jcat.2016.08.009]
524. Hydrogen transfer pathways during zeolite catalyzed methanol conversion to hydrocarbons
S. Müller, Y. Liu, F. M. Kirchberger, M. Tonigold, M. Sanchez-Sanchez, J.A. Lercher, *J. Am. Chem. Soc.*, 138, 15994 (2016).
[10.1021/jacs.6b09605]
525. Mechanistic insights into aqueous phase propanol dehydration in H-ZSM-5 zeolite
D. Mei, J.A. Lercher, *AIChE Journal*, 63, 172 (2017).
[10.1002/aic.15517]
526. Controlling Hydrodeoxygenation of Stearic Acid to *n*-Heptadecane and *n*-Octadecane by Adjusting the Chemical Properties of Ni/SiO₂-ZrO₂ Catalyst
S. Foraita, G. L. Haller, E. Baráth, C. Zhao, J. A. Lercher, *ChemCatChem*, 9, 195 (2017).
[10.1002/cctc.201601162]
527. Methanol thiolation over Al₂O₃ and WS₂ catalysts modified with cesium
A. V. Pashigreva, E. Kondratieva, R. Bermejo-Deval, O. Y. Gutiérrez, J. A. Lercher, *J. Catal.*, 345, 308 (2017).
[10.1016/j.jcat.2016.11.036]
528. Towards understanding structure-activity relationships of Ni-Mo-W sulfide hydrotreating catalysts
J. Hein, O. Y. Gutiérrez, S. Albersberger, J. Han, A. Jentys, J.A. Lercher, *ChemCatChem*, 9, 629 (2017).
[10.1002/cctc.201601281]
529. Atomic layer deposition in a metal-organic framework: synthesis, characterization and performance of a solid acid
M. Rimoldi, V. Bernales, J. Borycz, A. Vjunov, L.C. Gallington, A.E. Platero-Prats, I.S. Kim, J.L. Fulton, A.B.F. Martinson, J.A. Lercher, K.W. Chapman, C.J. Cramer, L. Gagliardi, J.T. Hupp, O.K. Farha, *Chem. Mater.*, 29, 1058 (2017).
[10.1021/acs.chemmater.6b03880]
530. Palladium catalyzed hydrolytic cleavage of aromatic carbon C-O bonds
M. Wang, H. Shi, D. M. Camaioni, J.A. Lercher, *Angew. Chem. Int. Ed.*, 56, 2110 (2017).
[10.1002/anie.201611076]
531. Enhancing the catalytic activity of hydronium ions through constrained environments
Y. Liu, A. Vjunov, H. Shi, S. Eckstein, D. M. Camaioni, D. Mei, E. Barath, J. A. Lercher, *Nat. Comm.*, 8, 14113 (2017).
[10.1038/ncomms14113]
532. Carbon-carbon bond scission pathways in the deoxygenation of fatty acids on transition metal sulfides
M. F. Wagenhofer, E. Baráth, O. Y. Gutiérrez, J.A. Lercher, *ACS Catalysis*, 7, 1068 (2017).
[10.1021/acscatal.6b02753]
533. Overcoming the rate-limiting reaction during photoreforming of sugar aldoses for H₂-generation
K. E. Sanwald, T. F. Berto, W. Eisenreich, O. Y. Gutiérrez, A. Jentys, J. A. Lercher, *ACS Catalysis*, 7, 3236 (2017).
[10.1021/acscatal.7b00508]

534. Impact of Ni promotion on the hydrogenation of phenanthrene on MoS₂/γ-Al₂O₃
E. Schachtl, J. Suk Yoo, O.Y. Gutiérrez, F. Studt, J. A. Lercher, *J. Catal.*, 352, 171 (2017).
[10.1016/j.jcat.2017.05.003]
535. Tailoring nanoscopic confines to maximize catalytic activity of hydronium ions.
H. Shi, S. Eckstein, A. Vjunov, D.M. Camaioni, J.A. Lercher, *Nat. Comm.*, 8, 15442 (2017).
[10.1038/ncomms15442]
536. Elementary steps and reaction pathways in the aqueous phase alkylation of phenol with ethanol
S. Eckstein, P. H. Hintermeier, M. V. Olarte, E. Baráth, Y. Liu, J. A. Lercher, *J. Catal.*, 352, 329 (2017).
[10.1016/j.jcat.2017.06.002]
537. Mechanism of phenol alkylation in zeolite HBEA using in situ solid state NMR spectroscopy
Z. Zhao, H. Shi, C. Wan, M. Y. Hu, Y. Liu, D. Mei, D. M. Camaioni, J. Z. Hu, J. A. Lercher, *J. Am. Chem. Soc.*, 139, 9178 (2017).
[10.1021/jacs.7b02153]
538. Role of spatial constraints of Brønsted acid sites for adsorption and surface reactions of linear pentenes
S. Schallmoser, G.L. Haller, M. Sanchez-Sanchez, J.A. Lercher, *J. Am. Chem. Soc.* 139 8646 (2017).
[10.1021/jacs.7b03690]
539. ²⁷Al MAS NMR studies of HBEA zeolite at low to high magnetic fields
J. Z. Hu, C. Wan, A. Vjunov, M. Wang, Z. Zhao, M.Y. Hu, D. Camaioni, J.A. Lercher, *J. Phys. Chem. C*, 121, 12849 (2017).
[10.1021/acs.jpcc.7b03517]
540. Bridging zirconia nodes within a metal–organic framework via catalytic Ni-hydroxo clusters to form hetero-bimetallic nanowires
A. Platero-Prats, A. League, V. Bernales, J. Ye, L. Gallington, A. Vjunov, N. Schweitzer, Z. Li, J. Zheng, L.B. Mehdi, A. Stevens, A. Dohnalkova, M. Balasubramanian, O. Farha, J. Hupp, N. Browning, J. Fulton, D.M. Camaioni, J.A. Lercher, D. Truhlar, L. Gagliardi, C. Cramer, K. Chapman, *J. Am. Chem. Soc.*, 139, 10410 (2017).
[10.1021/jacs.7b04997]
541. Methane oxidation to methanol catalyzed by Cu-oxo clusters stabilized in NU1000 metal-organic framework
T. Ikuno, J. Zheng A. Vjunov, M. Sanchez-Sanchez, M. A. Ortuño, D. R. Pahls, J.L. Fulton, D. M. Camaioni, Z. Li, J. Zheng, O. K. Farha, J. T. Hupp, C. J. Cramer, L. Gagliardi, J. A. Lercher, *J. Am. Chem. Soc.*, 139, 10294 (2017).
[10.1021/jacs.7b02936]
542. Stability of zeolites in aqueous phase reactions
S. Prodingler, H. Shi, S. Eckstein, J. Hua, D. M. Camaioni, M.A. Derewinski, J. A. Lercher, *Chemistry of Materials*, 29, 7255 (2017).
[10.1021/acs.chemmater.7b01847]
543. Deoxygenation of palmitic acid on unsupported transition-metal phosphides
M. Peroni, I. Lee, X. Huang, E. Baráth, O.Y. Gutiérrez, E. Barath, J. A. Lercher, *ACS Catalysis*, 7, 6331 (2017).
[10.1021/acscatal.7b01294]
544. Formation of oxygen radical sites on MoVNbTeO_x by cooperative electron redistribution
Y. Zhu, P. V. Sushko, D. Melzer, E. Jensen, L. Kovarik, C. Ophus, M. Sanchez-Sanchez, J. A. Lercher, N. D. Browning, *J. Am. Chem. Soc.*, 139, 12342 (2017).
[10.1021/jacs.7b05240]
545. Simultaneous hydrodenitrogenation and hydrodesulfurization on unsupported Ni-Mo-W sulfides
S. Albersberger, J. Hein, M. Schreiber, S. Guerra, J. Han, O. Y. Gutiérrez, J.A. Lercher, *Catal. Today*, 297 344 (2017).
[10.1016/j.cattod.2017.05.083]
546. Enhanced activity in methane dry reforming by CO₂ induced metal-oxide interface restructuring of Ni/ZrO₂
M. Steib, Y. Lou, A. Jentys, J.A. Lercher, *ChemCatChem*, 9, 3809 (2017).
[10.1002/cctc.201700686]
547. Aqueous phase hydrogenation of phenol catalyzed by Pd and PdAg on ZrO₂
K.A. Resende, C.E. Hori, F.B. Noronha, H. Shi, J.L. Fulton, O.Y. Gutierrez, D.M. Camaioni, J. A. Lercher, *Applied Catalysis A*, 548, 128 (2017).
[10.1016/j.apcata.2017.08.005]

548. Design of stable Ni/ZrO₂ catalysts for dry reforming of methane
Y. Lou, M. Steib, Q. Zhang, K. Tiefenbacher, A. Jentys, Y. Liu, J. A. Lercher, *J. Catal.*, 356, 147 (2017).
[10.1016/j.jcat.2017.10.009]
549. Hydronium-ion-catalyzed elimination pathways of substituted cyclohexanols in zeolite H-ZSM5
P. H. Hintermeier, S. Eckstein, M. V. Olarte, D. M. Camaioni, E. Baráth, J. A. Lercher, *ACS Catalysis*, 7, 7822 (2017).
[10.1021/acscatal.7b01582]
550. Tracking the chemical transformations at the Brønsted acid site upon water-induced deprotonation in a zeolite pore
A. Vjunov, J. L. Fulton, N. Govind, D. Mei, T. Huthwelker, H. Shi, M. Wang, J.A. Lercher, *Chem. Mater.* 29, 9030 (2017).
[10.1021/acs.chemmater.7b02133]
551. On the role of the alkali cations as catalytic sites for methanol thiolation
R. Bermejo-Deval, R. M. H. Walter, O.Y. Gutiérrez, J. A. Lercher, *Catalysis Science and Technology*, 7, 4437 (2017).
[10.1039/c7cy01255a]
552. Hydrogenation of benzaldehyde via electrocatalysis and thermal catalysis on carbon-supported metals
Y. Song, U. Sanyal, D. Pangotra, J.D. Holladay, D.M. Camaioni, O. Y. Gutiérrez, J. A. Lercher, *J. Catal.* 359, 68 (2018).
[10.1016/j.jcat.2017.12.026]
553. Zeolite-catalyzed pathways for liquid-phase alkylation of phenol in apolar solvents and water
Y. Liu, E. Baráth, H. Shi, J. Hu, D. M. Camaioni, J.A. Lercher, *Nature Catalysis* 1, 141 (2018).
[10.1038/s41929-017-0015-z]
554. Ni₃P as a high-performance catalytic phase for the hydrodeoxygenation of phenolic compounds
Z.Q. Yu, Y. Wang, Z.C. Sun, X. Li, A. Wang, D.M. Camaioni, J.A. Lercher, *Green Chemistry*, 20, 609 (2018).
[10.1039/c7gc03262e]
555. Palladium catalyzed reductive insertion of alcohols in aryl ether bonds
M. Wang, O.Y. Gutiérrez, D. M. Camaioni, J.A. Lercher, *Angew. Chemie Int. Ed.*, 57, 3747 (2018).
[10.1002/anie.201709445]
556. Elementary steps of faujasite formation followed by in situ spectroscopy
S. Prodinge, A. Vjunov, J. Z. Hu, J.L. Fulton, D.M. Camaioni, M.A. Derewinski, J.A. Lercher, *Chem. Mater.*, 30, 888 (2018).
[10.1021/acs.chemmater.7b04554]
557. Sinter-resistant platinum catalyst supported by metal-organic framework
I. S. Kim, Z. Li, J. Zheng, A. Platero-Prats, A. Mavrandonakis, S. Pellizzeri, M. Ferrandon, A. Vjunov, L. C. Gallington, T. Webber, N. A. Vermeulen, R. Lee Penn, R. B. Getman, C. J. Cramer, K. W. Chapman, D. M. Camaioni, J.L. Fulton, J.A. Lercher, O. K. Farha, J. T. Hupp, A. B. F. Martinson, *Angew. Chemie Int. Ed.* 57, 909 (2018).
[10.1002/anie.201708092]
558. Lewis-Brønsted acid pairs in Ga/H-ZSM-5 to catalyze dehydrogenation of light alkanes
M.W. Schreiber, C. P. Plaisance, M. Baumgärtl, K. Reuter, A. Jentys, R. Bermejo-Deval, J. A. Lercher, *J. Am. Chem. Soc.*, 140, 4849 (2018).
[10.1021/jacs.7b12901]
559. Kinetic coupling of water splitting and photoreforming on SrTiO₃-based photocatalysts
K. E. Sanwald, T. F. Berto, A. Jentys, O.Y. Gutiérrez, J. A. Lercher, *ACS Catalysis*, 8, 2902 (2018).
[10.1021/jacs.7b12901]
560. In situ monitoring the uptake of moisture into hybrid perovskite thin films
J. Schlipf, L. Bießmann, L. Oesinghaus, E. Berger, E. Metwalli, J.A. Lercher, L. Porcar, P. Müller-Buschbaum, *J. Phys. Chem. Lett.*, 9, 2015 (2018)
[10.1021/acs.jpcclett.8b00687]
561. Impact of structural defects and hydronium ion concentration on the stability of zeolite BEA in aqueous phase
S. Prodinge, H. Shi, H. Wang, M. A. Derewinski, J. A. Lercher, *Applied Catalysis B*, 237 996 (2018).
[10.1016/j.apcatb.2018.06.065]

562. Overcoming thermodynamic limitations in dimethyl carbonate synthesis from methanol and CO₂
B. Peng, H. Dou, H. Shi, E. E. Ember, J. A. Lercher, *Catal. Lett.* 148, 1914 (2018).
[10.1007/s10562-018-2402-8]
563. A nitrogen-doped PtSn nanocatalyst supported on hollow silica spheres for acetic acid hydrogenation
J. Zhou, Y. Zhao, J. Zhang, Y. Wang, O. Y. Gutiérrez, S. Wang, Z. Li, P. Jin, S. Wang, X. Maa, J. A. Lercher, *Chem. Comm.* 54, 8818 (2018).
[10.1039/C8CC03649G]
564. Hydrolysis of zeolite framework aluminum and its impact on acid catalyzed alkane reactions
N. Xue, A. Vjunov, S. Schallmoser, J. L. Fulton, M. Sanchez-Sanchez, J. Z. Hu, D. Mei, J. A. Lercher, *J. Catal.*, 365, 359 (2018).
[10.1016/j.jcat.2018.07.015]
565. Rh(CAAC)-catalyzed arene hydrogenation: Evidence for nanocatalysis and sterically controlled site-selective sydrogenation
B.L Tran, J. L. Fulton, J. C. Linehan, L. Kovarik, J. A. Lercher, R. M. Bullock, *ACS Catalysis*, 8, 8441 (2018).
[10.1021/acscatal.8b02589]
566. Active sites catalyzing aromatics hydrogenation in Ni-promoted transition metal sulfides aromatics
W. Luo, H. Shi, E. Schachtl, O. Y. Gutiérrez, J. A. Lercher, *Angew. Chemie Int. Ed.*, 57, 14555 (2018).
[10.1002/anie.201808428]
567. Aqueous phase hydrodeoxygenation of phenol over Ni₃P-CePO₄ catalysts
Z. Yu, Y. Wang, S. Liu, Y. Yao, Z. Sun, X. Li, Y. Liu, W. Wang, A. Wang, D. M. Camaioni, J. A. Lercher, *Ind. Eng. Chem. Res.*, 57, 10216 (2018).
[10.1021/acs.iecr.8b01606]
568. Carbon-supported Pt during aqueous phenol hydrogenation with and without applied electrical potential: X-ray absorption and theoretical studies of structure and adsorbates
N. Singh, M.T. Nguyen, D. C. Cantu, B. L. Mehdi, N. D. Browning, J. L. Fulton, J. Zheng, M. Balasubramanian, O. Gutiérrez, V.A. Glezakou, R. Rousseau, N. Govind, D. M. Camaioni, C. T. Campbell, J. A. Lercher, *J. Catal.*, 368, 8 (2018).
569. Hydrodeoxygenation of phenolic compounds to cycloalkanes over supported nickel phosphides
Z. Yu, A. Wang, S. Liu, Y. Yao, Z. Sun, X. Li, Y. Liu, Y. Wang, D. M. Camaioni, J. A. Lercher, *Catal. Today*, 319, 48 (2019).