

Mayoral, A., Zhang, Q., Zhou, Y., Chen, P., Ma, Y., Monji, T., Losch, P., Schmidt, W., Schüth, F., Hirao, H., Yu, J., & Terasaki, O. (2020). Direct Atomic-Level Imaging of Zeolites: Oxygen, Sodium in Na-LTA and Iron in Fe-MFI. *Angewandte Chemie International Edition*, 59(44), 19510-19517. doi:10.1002/anie.202006122.

Grünert, A., Schmidt, W., & Schüth, F. (2020). Carbon Supported Phosphoric Acid Catalysts for Gas-Phase Synthesis of Diesel Additives. *Catalysis Letters*, 150(10), 2951-2958. doi:10.1007/s10562-020-03200-4.

Nürnberg, E., Schulze, P., Kohler, F., Zubel, M., Pischinger, S., & Schüth, F. (2019). Blending Real World Gasoline with Biofuel in a Direct Conversion Process. *ACS Sustainable Chemistry & Engineering*, 7(1), 249-257. doi:10.1021/acssuschemeng.8b03044.

Amrute, A. P., Łodziana, Z., Schreyer, H., Weidenthaler, C., & Schüth, F. (2020). Response to Comment on “High-surface-area corundum by mechanochemically induced phase transformation of boehmite”. *Science*, 368(6494): eabb0948. doi:10.1126/science.abb0948.

Boetius, A., Bradke, H., Drake, F.-D., Edenhofer, O., Fleischer, M., Friedrich, B., Günter, S., Hanson, J., Haug, G., Henning, H.-M., Hüttl, R. F., Lehold, J., Löschel, A., Marksches, C., Pittel, K., Renn, J., Sauer, D. U., Schlacke, S., Schlögl, R., Schmidt, C. M., Schüth, F., & Spiecker gen. Döhmman, I. (2020). *Energiewende 2030: Europas Weg zur Klimaneutralität (2020)*. Halle (Saale): Nationale Akademie der Wissenschaften Leopoldina; acatech—Deutsche Akademie der Technikwissenschaften; Union der deutschen Akademien der Wissenschaften.

Boetius, A., Edenhofer, O., Friedrich, B., Haug, G. H., Kraas, F., Marquardt, W., Lehold, J., Lohse, M. J., Renn, J., Rösler, F., Schlögl, R., Schüth, F., Schmidt, C. M., & Stocker, T. (2019). *Klimaziele 2030: Wege zu einer nachhaltigen Reduktion der CO₂-Emissionen*. Halle (Saale): Nationale Akademie der Wissenschaften Leopoldina.

Amrute, A. P., Zibrowius, B., & Schüth, F. (2020). Mechanochemical Grafting: A Solvent-less Highly Efficient Method for the Synthesis of Hybrid Inorganic–Organic Materials. *Chemistry of Materials*, 32(11), 4699-4706. doi:10.1021/acs.chemmater.0c01266.

Amrute, A. P., Jeske, K., Łodziana, Z., Prieto, G., & Schüth, F. (2020). Hydrothermal Stability of High-Surface-Area α -Al₂O₃ and Its Use as a Support for Hydrothermally Stable Fischer–Tropsch Synthesis Catalysts. *Chemistry of Materials*, 32(10), 4369-4374. doi:10.1021/acs.chemmater.0c01587.

Fürstner, A., List, B., Ritter, T., Schüth, F., & Neese, F. (2020). Walter Thiel (1949–2019). *Angewandte Chemie International Edition*, 59(4), 1382-1383. doi:10.1002/anie.201915463.

Ledendecker, M., Geiger, S., Hengge, K. A., Lim, J., Cherevko, S., Mingers, A. M., Göhl, D., Fortunato, G. V., Jalalpoor, D., Schüth, F., Scheu, C., & Mayrhofer, K. J. J. (2019). Towards maximized utilization of iridium for the acidic oxygen evolution reaction. *Nano Research*, 1-6. doi:10.1007/s12274-019-2383-y.

Amrute, A. P., Lodziana, Z., Schreyer, H., Weidenthaler, C., & Schüth, F. (2019). High-surface-area corundum by mechanochemically induced phase transformation of boehmite. *Science*, 366(6464), 485-489. doi:10.1126/science.aaw9377.

Ledendecker, M., Geiger, S., Hengge, K. A., Lim, J., Cherevko, S., Mingers, A. M., Göhl, D., Fortunato, G. V., Jalalpoor, D., Schüth, F., Scheu, C., & Mayrhofer, K. J. J. (2019). Towards maximized utilization of iridium for the acidic oxygen evolution reaction. *Nano Research*, 12(9), 2275-2280. doi:10.1007/s12274-019-2383-y.

Wang, Q.-N., Weng, X.-F., Zhou, B.-C., Lv, S.-P., Miao, S., Zhang, D., Han, Y., Scott, S. L., Schüth, F., & Lu, A.-H. (2019). Direct, Selective Production of Aromatic Alcohols from Ethanol Using a Tailored Bifunctional Cobalt–Hydroxyapatite Catalyst. *ACS Catalysis*, 9(8), 7204-7216. doi:10.1021/acscatal.9b02566.

Whitepaper: The Digitalization of Catalysis-Related Sciences [Special Issue]. (2019). Retrieved from https://dechema.de/dechema_media/Downloads/Positionspapiere/GeCatS_Whitepaper+2019_engl_ezl-p-20005018.pdf.

Wang, Q.-N., Zhou, B.-C., Weng, X.-F., Lv, S.-P., Schüth, F., & Lu, A.-H. (2019). Hydroxyapatite nanowires rich in [Ca–O–P] sites for ethanol direct coupling showing high C₆₋₁₂ alcohol yield. *Chemical Communications*, 55(70), 10420-10423. doi:10.1039/C9CC05454E.

Bilke, M., Losch, P., Vozniuk, O., Bodach, A., & Schüth, F. (2019). Methane to Chloromethane by Mechanochemical Activation: A Selective Radical Pathway. *Journal of the American Chemical Society*, 141(28), 11212-11218. doi:10.1021/jacs.9b04413.

Schreyer, H., Eckert, R., Immohr, S., de Bellis, J., Felderhoff, M., & Schüth, F. (2019). Milling Down to Nanometers: A General Process for the Direct Dry Synthesis of Supported Metal Catalysts. *Angewandte Chemie International Edition*, 58(33), 11262-11265. doi:10.1002/anie.201903545.

Joshi, H. R., Schmidt, W., & Schüth, F. (2019). Encapsulation of sub-micrometer sized zeolites by porous silica – towards a rational design strategy for functional yolk-shells. *Microporous and Mesoporous Materials*, 282(7), 1-8. doi:10.1016/j.micromeso.2019.03.013.

Xu, R., Kang, L., Knossalla, J., Mielby, J., Wang, Q., Wang, B., Feng, J., He, G., Qin, Y., Xie, J., Swertz, A.-C., He, Q., Kegnæs, S., Brett, D. J. L., Schüth, F., & Wang, F. R. (2019). Nanoporous Carbon: Liquid-Free Synthesis and Geometry-Dependent Catalytic Performance. *ACS Nano*, 13(2), 2463-2472. doi:10.1021/acsnano.8b09399.

Schüth, F. (2019). Making more from methane. *Science*, 363(6433), 1282-1283. doi:10.1126/science.aaw7738.

Schüth, F., & Wasserscheid, P. (2019). Wilhelm Keim (1934–2018). *Angewandte Chemie International Edition*, 58(1), 31-32. doi:10.1002/anie.201812688.

Li, M.-Y., Lu, W.-D., He, L., Schüth, F., & Lu, A.-H. (2019). Tailoring the Surface Structure of Silicon Carbide Support for Copper Catalyzed Ethanol Dehydrogenation. *ChemCatChem*, 11(1), 481-487. doi:10.1002/cctc.201801742.

Joshi, H. R., Jalalpoor, D., Ochoa-Hernández, C., Schmidt, W. N., & Schüth, F. (2018). Ozone Treatment: A Versatile Tool for the Postsynthesis Modification of Porous Silica-Based Materials. *Chemistry of Materials*, 30(24), 8905-8914. doi:10.1021/acs.chemmater.8b04113.

Knossalla, J., Paciok, P., Göhl, D., Jalalpoor, D., Pizzutilo, E., Mingers, A. M., Heggen, M., Dunin-Borkowski, R. E., Mayrhofer, K. J. J., Schüth, F., & Ledendecker, M. (2018). Shape-Controlled Nanoparticles in Pore-Confined Space. *Journal of the American Chemical Society*, 140(46), 15684-15689. doi:10.1021/jacs.8b07868.

Schüth, F., Ward, M. D., & Buriak, J. M. (2018). Common Pitfalls of Catalysis Manuscripts Submitted to Chemistry of Materials. *Chemistry of Materials*, 30(11), 3599-3600. doi:10.1021/acs.chemmater.8b01831.

Grünert, A., Losch, P., Ochoa-Hernandez, C., Schmidt, W. N., & Schüth, F. (2018). Gas-phase synthesis of oxymethylene ethers over Si-rich zeolites. *Green Chemistry*, (20), 4719-4728. doi:10.1039/C8GC02617C.

Zimmermann, T., Bilke, M., Soorholtz, M., & Schüth, F. (2018). Influence of Catalyst Concentration on Activity and Selectivity in Selective Methane Oxidation with Platinum Compounds in Sulfuric Acid and Oleum. *ACS Catalysis*, 8(10), 9262-9268. doi:10.1021/acscatal.8b01878.

Xiong, Y., Gu, D., Deng, X., Tüysüz, H., van Gastel, M., Schüth, F., & Marlow, F. (2018). High surface area black TiO₂ templated from ordered mesoporous carbon for solar driven hydrogen evolution. *Microporous and Mesoporous Materials*, 268, 162-169. doi:10.1016/j.micromeso.2018.04.018.

Pichler, C., Gu, D., Joshi, H., & Schüth, F. (2018). Influence of preparation method and doping of zirconium oxide onto the material characteristics and catalytic activity for the HDO reaction in nickel on zirconium oxide catalysts. *Journal of Catalysis*, 365(9), 367-375. doi:10.1016/j.jcat.2018.07.021.

Pichler, C., Al-Shaal, M. G., Gu, D., Joshi, H., Ciptonugroho, W., & Schüth, F. (2018). Ruthenium Supported on High-Surface-Area Zirconia as an Efficient Catalyst for the Base-Free Oxidation of 5-Hydroxymethylfurfural to 2,5-Furandicarboxylic Acid. *ChemSusChem*, *11*(13), 2083-2090. doi:10.1002/cssc.201800448.

Schüth, F., Ward, M. D., & Buriak, J. M. (2018). Common Pitfalls of Catalysis Manuscripts Submitted to Chemistry of Materials. *Chemistry of Materials*, *30*(11), 3599-3600. doi:10.1021/acs.chemmater.8b01831.

Dierks, M., Cao, Z., Manayil, J. C., Akilavasan, J., Wilson, K., Schüth, F., & Rinaldi, R. (2018). Impact of Hydrophobic Organohybrid Silicas on the Stability of Ni₂P Catalyst Phase in the Hydrodeoxygenation of Biophenols. *ChemCatChem*, *10*(10), 2219-2231. doi:10.1002/cctc.201702001.

Lu, W.-D., Wang, Q., He, L., Li, W., Schüth, F., & Lu, A.-H. (2018). Copper Supported on Hybrid C@SiO₂ Hollow Submicron Spheres as Active Ethanol Dehydrogenation Catalyst. *ChemNanoMat*, *4*(5), 505-509. doi:10.1002/cnma.201800021.

Wang, G.-H., Chen, K., Engelhardt, J., Tüysüz, H., Bongard, H.-J., Schmidt, W. N., & Schüth, F. (2018). Scalable One-Pot Synthesis of Yolk–Shell Carbon Nanospheres with Yolk-Supported Pd Nanoparticles for Size-Selective Catalysis. *Chemistry of Materials*, *30*(8), 2483-2487. doi:10.1021/acs.chemmater.8b00456.

Göhl, D., Mingers, A. M., Geiger, S., Schalenbach, M., Cherevko, S., Knossalla, J., Jalalpoor, D., Schüth, F., Mayrhofer, K. J. J., & Ledendecker, M. (2018). Electrochemical stability of hexagonal tungsten carbide in the potential window of fuel cells and water electrolyzers investigated in a half-cell configuration. *Electrochimica Acta*, *270*, 70-76. doi:10.1016/j.electacta.2018.02.129.

Göhl, D., Mingers, A. M., Geiger, S., Schalenbach, M., Cherevko, S., Knossalla, J., Jalalpoor, D., Schüth, F., Mayrhofer, K. J., & Ledendecker, M. (2018). Electrochemical stability of hexagonal tungsten carbide in the potential window of fuel cells and water electrolyzers investigated in a half-cell configuration. *Electrochimica Acta*, *270*, 70-76. doi:10.1016/j.electacta.2018.02.129.

Ortatatli, S., Knossalla, J., Schüth, F., & Weidenthaler, C. (2018). Monitoring the formation of PtNi nanoalloys supported on hollow graphitic spheres using in situ pair distribution function analysis. *Physical Chemistry Chemical Physics*, *20*(13), 8466-8474. doi:10.1039/C7CP07840D.

Wang, Q.-N., Shi, L., Li, W., Li, W.-C., Si, R., Schüth, F., & Lu, A.-H. (2018). Cu supported on thin carbon layer-coated porous SiO₂ for efficient ethanol dehydrogenation. *Catalysis Science & Technology*, *8*(2), 472-479. doi:10.1039/C7CY02057K.

Schünemann, S., Schüth, F., & Tüysüz, H. (2017). Selective glycerol oxidation over ordered mesoporous copper aluminum oxide catalysts. *Catalysis Science & Technology*, *(23)*, 5614-5624. doi:10.1039/C7CY01451A.

Pizzutilo, E., Knossalla, J., Geiger, S., Grote, J.-P., Polymeros, G., Baldizzone, C., Mezzavilla, S., Ledendecker, M., Mingers, A., Cherevko, S., Schüth, F., & Mayrhofer, K. J. J. (2017). The Space Confinement Approach Using Hollow Graphitic Spheres to Unveil Activity and Stability of Pt-Co Nanocatalysts for PEMFC. *Advanced Energy Materials*, 7(20): 1700835. doi:10.1002/aenm.201700835.

Schreyer, H., Immohr, S., & Schüth, F. (2017). Oscillatory combustion of propene during in situ mechanical activation of solid catalysts. *Journal of Materials Science*, 52(20), 12021-12030. doi:10.1007/s10853-017-1153-z.

Wang, Y., Widmann, D., Wittmann, M., Lehnert, F., Gu, D., Schüth, F., & Behm, R. J. (2017). High activity and negative apparent activation energy in low-temperature CO oxidation - present on Au/Mg(OH)₂, absent on Au/TiO₂. *Catalysis Science & Technology*, 7(18), 4145-4161. doi:10.1039/C7CY00722A.

Knossalla, J., Jalalpoor, D., & Schüth, F. (2017). Hands-on Guide to the Synthesis of Mesoporous Hollow Graphitic Spheres and Core-Shell Materials. *Chemistry of Materials*, 29(17), 7062-7072. doi:10.1021/acs.chemmater.7b02645.

Duyckaerts, N., Bartsch, M., Trotus, I.-T., Pfänder, N., Lorke, A., Schüth, F., & Prieto, G. (2017). Intermediate product regulation in tandem solid catalysts with multimodal porosity for high-yield synthetic fuel production. *Angewandte Chemie International Edition*, 56(38), 11480-11484. doi:10.1002/anie.201705714.

Gu, D., Schmidt, W., Pichler, C., Bongard, H.-J., Spliethoff, B., Asahina, S., Cao, Z., Terasaki, O., & Schüth, F. (2017). Surface-Casting Synthesis of Mesoporous Zirconia with a CMK-5-Like Structure and High Surface Area. *Angewandte Chemie International Edition*, 56(37), 11222-11225. doi:10.1002/anie.201705042.

Heracleous, E., Gu, D., Schüth, F., Bennett, J. A., Isaacs, M. A., Lee, A. F., Wilson, K., & Lappas, A. A. (2017). Bio-oil upgrading via vapor-phase ketonization over nanostructured FeO_x and MnO_x: catalytic performance and mechanistic insight. *Biomass and Bioenergy*, 7(3), 319-329. doi:10.1007/s13399-017-0268-4.

Wang, Y., Widmann, D., Lehnert, F., Gu, D., Schüth, F., & Behm, R. J. (2017). Avoiding Self-Poisoning: A Key Feature for the High Activity of Au/Mg(OH)₂ Catalysts in Continuous Low-Temperature CO Oxidation. *Angewandte Chemie International Edition*, 56(32), 9597-9602. doi:10.1002/anie.201702178.

Engelhardt, J., Lyu, P., Nachtigall, P., Schüth, F., & García, Á. M. (2017). The Influence of Water on the Performance of Molybdenum Carbide Catalysts in Hydrodeoxygenation Reactions: A Combined Theoretical and Experimental Study. *ChemCatChem*, 9(11), 1985-1991. doi:10.1002/cctc.201700181.

Ausfelder, F., Beilmann, C., Bertau, M., Bräuninger, S., Heinzl, A., Hoer, R., Koch, W., Mahlendorf, F., Metzethin, A., Peuckert, M., Plass, L., Rächle, K., Reuter, M., Schaub, G., Schiebahn, S., Schwab, E., Schüth, F., Stolten, D., Teßmer, G., Wagemann, K., & Ziegahn, K.-F. (2017). Energy Storage as Part of a Secure Energy Supply. *ChemBioEng Reviews*, 4(3), 144-210. doi:10.1002/cben.201700004.

Eckert, R., Felderhoff, M., & Schüth, F. (2017). Preferential Carbon Monoxide Oxidation over Copper-Based Catalysts under In Situ Ball Milling. *Angewandte Chemie International Edition*, 56(9), 2445-2448. doi:10.1002/anie.201610501.

Cao, Z., Engelhardt, J., Dierks, M., Clough, M. T., Wang, G., Heracleous, E., Lappas, A., Rinaldi, R., & Schüth, F. (2017). Catalysis Meets Nonthermal Separation for the Production of (Alkyl)phenols and Hydrocarbons from Pyrolysis Oil. *Angewandte Chemie International Edition*, 56(9), 2334-2339. doi:10.1002/anie.201610405.

Pizzutilo, E., Knossalla, J., Geiger, S., Grote, J.-P., Polymeros, G., Baldizzone, C., Mezzavilla, S., Ledenecker, M., Mingers, A. M., Cherevko, S., Schüth, F., & Mayrhofer, K. J. J. (2017). The Space Confinement Approach Using Hollow Graphitic Spheres to Unveil Activity and Stability of Pt–Co Nanocatalysts for PEMFC. *Advanced Energy Materials*, 7(20): 1700835. doi:10.1002/aenm.201700835.

Mezzavilla, S., Baldizzone, C., Swertz, A.-C., Hodnik, N., Pizzutilo, E., Polymeros, G., Keeley, G. P., Knossalla, J., Heggen, M., Mayrhofer, K. J. J., & Schüth, F. (2016). Structure–Activity–Stability Relationships for Space–Confined Pt_xNi_y Nanoparticles in the Oxygen Reduction Reaction. *ACS Catalysis*, 6(12), 8058-8068. doi:10.1021/acscatal.6b02221.

Mezzavilla, S., Baldizzone, C., Swertz, A.-C., Hodnik, N., Pizzutilo, E., Polymeros, G., Keeley, G. P., Knossalla, J., Heggen, M., Mayrhofer, K. J. J., & Schüth, F. (2016). Structure–Activity–Stability Relationships for Space–Confined Pt_xNi_y Nanoparticles in the Oxygen Reduction Reaction. *ACS Catalysis*, 6(12), 8058-8068. doi:10.1021/acscatal.6b02221.

Prieto, G., Tüysüz, H., Duyckaerts, N., Knossalla, J., Wang, G., & Schüth, F. (2016). Hollow Nano- and Microstructures as Catalysts. *Chemical Reviews*, 116(22), 14056-14119. doi:10.1021/acs.chemrev.6b00374.

Schüth, F. (2016). A Vibrant Science Lives from Within. *Angewandte Chemie International Edition*, 55(48), 14878-14879. doi:10.1002/anie.201609519.

Castro, M., Haouas, M., Lim, I., Bongard, H.-J., Schüth, F., Taulelle, F., Karlsson, G., Alfredsson, V., Breyneart, E., Kirschhock, C. E. A., & Schmidt, W. (2016). Zeolite Beta Formation from Clear Sols: Silicate Speciation, Particle Formation and Crystallization Monitored by Complementary Analysis Methods. *Chemistry – A European Journal*, 22(43), 15307-15319. doi:10.1002/chem.201600511.

Zimmermann, T., Soorholtz, M., Bilke, M., & Schüth, F. (2016). Selective Methane Oxidation Catalyzed by Platinum Salts in Oleum at Turnover Frequencies of Large-Scale Industrial Processes. *Journal of the American Chemical Society*, 138(38), 12395-12400. doi:10.1021/jacs.6b05167.

Richter, F. H., Sahraoui, L., & Schüth, F. (2016). Polystyrene-Based Polymer Networks as Solid Acid Catalysts. *Chemistry – A European Journal*, 22(38), 13563-13574. doi:10.1002/chem.201603069.

Wang, G., Deng, X., Gu, D., Chen, K., Tüysüz, H., Spliethoff, B., Bongard, H.-J., Weidenthaler, C., Schmidt, W., & Schüth, F. (2016). Co₃O₄ Nanoparticles Supported on Mesoporous Carbon for Selective Transfer Hydrogenation of α,β -Unsaturated Aldehydes. *Angewandte Chemie International Edition*, 55(37), 11101-11105. doi:10.1002/anie.201604673.

Ruby, M.-P., & Schüth, F. (2016). Synthesis of N-alkyl-4-vinylpyridinium-based cross-linked polymers and their catalytic performance for the conversion of fructose into 5-hydroxymethylfurfural. *Green Chemistry*, (11), 3422-3429. doi:10.1039/C5GC02949J.

Wang, F., Buchel, R., Savitsky, A., Zalibera, M., Widmann, D., Pratsinis, S. E., Lubitz, W., & Schüth, F. (2016). In Situ EPR Study of the Redox Properties of CuO-CeO₂ Catalysts for Preferential CO Oxidation (PROX). *ACS Catalysis*, 6(6), 3520-3530. doi:10.1021/acscatal.6b00589.

Polymeros, G., Baldizzone, C., Geiger, S., Grote, J.-P., Knossalla, J., Mezzavilla, S., Keeley, G. P., Cherevko, S., Žeradžanin, A. R., Schüth, F., & Mayrhofer, K. J. J. (2016). High temperature stability study of carbon supported high surface area catalysts – Expanding the boundaries of ex-situ diagnostics. *Electrochimica Acta*, 211, 744-753. doi:10.1016/j.electacta.2016.06.105.

Polymeros, G., Baldizzone, C., Geiger, S., Grote, J., Knossalla, J., Mezzavilla, S., Keeley, G., Cherevko, S., Zeradžanin, A., Schüth, F., & Mayrhofer, K. (2016). High temperature stability study of carbon supported high surface area catalysts - Expanding the boundaries of ex-situ diagnostics. *Electrochimica Acta*, 211, 744-753. doi:10.1016/j.electacta.2016.06.105.

Gu, D., Tseng, J.-C., Weidenthaler, C., Bongard, H.-J., Spliethoff, B., Schmidt, W., Soulimani, F., Weckhuysen, B. M., & Schüth, F. (2016). Gold on Different Manganese Oxides: Ultra-Low-Temperature CO Oxidation over Colloidal Gold Supported on Bulk-MnO₂ Nanomaterials. *Journal of the American Chemical Society*, 138(30), 9572-9880. doi:10.1021/jacs.6b04251.

Wang, G., Cao, Z., Gu, D., Pfänder, N., Swertz, A.-C., Spliethoff, B., Bongard, H.-J., Weidenthaler, C., Schmidt, W., Rinaldi, R., & Schüth, F. (2016). Nitrogen-Doped Ordered Mesoporous Carbon Supported Bimetallic PtCo Nanoparticles for Upgrading of Biophenolics. *Angewandte Chemie International Edition*, 55(31), 8850-8855. doi:10.1002/anie.201511558.

Duyckaerts, N., Trotus, I.-T., Swertz, A.-C., Schüth, F., & Prieto, G. (2016). In Situ Hydrocracking of Fischer–Tropsch Hydrocarbons: CO-Prompted Diverging Reaction Pathways for Paraffin and α -Olefin Primary Products. *ACS Catalysis*, 6(6), 4229-4238. doi:10.1021/acscatal.6b00904.

Knossalla, J., Mezzavilla, S., & Schüth, F. (2016). Continuous synthesis of nanostructured silica based materials in a gas–liquid segmented flow tubular reactor. *New Journal of Chemistry*, 40(5), 4361-4366. doi:10.1039/C5NJ03033A.

Lu, A. H., Zhang, X.-Q., Sun, Q., Zhang, Y., Song, Q., Schüth, F., Chen, C., & Cheng, F. (2016). Precise synthesis of discrete and dispersible carbon-protected magnetic nanoparticles for efficient magnetic resonance imaging and photothermal therapy. *Nano Research*, 9(5), 1460-1469. doi:10.1007/s12274-016-1042-9.

Soorholtz, M., Jones, L. C., Samuelis, D., Weidenthaler, C., White, R. J., Titirici, M.-M., Cullen, D. A., Zimmermann, T., Antonietti, M., Maier, J., Palkovits, R., Chmelka, B. F., & Schüth, F. (2016). Local Platinum Environments in a Solid Analogue of the Molecular Periana Catalyst. *ACS Catalysis*, 6(4), 2332-2340. doi:10.1021/acscatal.5b02305.

Auer, A. A., Cap, S., Antonietti, M., Cherevko, S., Deng, X., Papakonstantinou, G., Sundmacher, K., Brüller, S., Antonyshyn, I., Dimitratos, N., Davis, R. J., Böhm, K.-H., Fechler, N., Freakley, S., Grin, Y., Gunnoe, B. T., Haj-Hariri, H., Hutchings, G., Liang, H., Mayrhofer, K. J. J., Müllen, K., Neese, F., Ranjan, C., Sankar, M., Schlögl, R., Schüth, F., Spanos, I., Stratmann, M., Tüysüz, H., Vidakovic-Koch, T., Yi, Y., & Zangari, G. (2015). MAXNET Energy – Focusing Research in Chemical Energy Conversion on the Electrocatalytic Oxygen Evolution. *Green*, 5(1-6), 7-21. doi:10.1515/green-2015-0021.

Auer, A. A., Cap, S., Antonietti, M., Cherevko, S., Deng, X., Papakonstantinou, G., Sundmacher, K., Brüller, S., Antonyshy, I., Dimitratos, N., Davis, R. J., Fechler, N., Freakley, S., Grin, Y., Gunnoe, B. T., Haj-Hariri, H., Hutchings, G., Liang, H., Mayrhofer, K. J. J., Müllen, K., Neese, F., Ranjan, C., Sankar, M., Schlögl, R., Schüth, F., Spanos, I., Stratmann, M., Tüysüz, H., Vidakovic-Koch, T., Yi, Y., & Zangari, G. (2015). MAXNET Energy – Focusing Research in Chemical Energy Conversion on the Electrocatalytic Oxygen Evolution. *Green: The International Journal of Sustainable Energy Conversion and Storage*, 5, 7-21. doi:10.1515/green-2015-0021.

Deng, X., Dodekatos, G., Pupovac, K., Weidenthaler, C., Schmidt, W., Schüth, F., & Tüysüz, H. (2015). Pseudomorphic Generation of Supported Catalysts for Glycerol Oxidation. *ChemCatChem*, 7(23), 3832-3837. doi:10.1002/cctc.201500703.

Duyckaerts, N., Trotus, I.-T., Nese, V., Swertz, A.-C., Auris, S., Wiggers, H., & Schüth, F. (2015). Mesoporous Sulfonated Carbon Materials Prepared by Spray Pyrolysis. *ChemCatChem*, 7(18), 2891-2896. doi:10.1002/cctc.201500483.

Gu, D., Jia, C., Weidenthaler, C., Bongard, H.-J., Spliethoff, B., Schmidt, W. N., & Schüth, F. (2015). Highly Ordered Mesoporous Cobalt-Containing Oxides: Structure, Catalytic Properties, and Active Sites in Oxidation of Carbon Monoxide. *Journal of the American Chemical Society*, 137(37), 11855-12160. doi:10.1021/jacs.5b06336.

Prieto, G., & Schüth, F. (2015). Bridging the gap between insightful simplicity and successful complexity: From fundamental studies on model systems to technical catalysts. *Journal of Catalysis*, 328, 59-71. doi:10.1016/j.jcat.2014.12.009.

Passas-Lagos, E., & Schüth, F. (2015). Amphiphilic Pickering Emulsifiers Based on Mushroom-Type Janus Particles. *Langmuir*, 31(28), 7749-7757. doi:10.1021/acs.langmuir.5b01198.

Gu, D., Li, W., Wang, F., Bongard, H.-J., Spliethoff, B., Schmidt, W., Weidenthaler, C., Xia, Y., Zhao, D., & Schüth, F. (2015). Controllable Synthesis of Mesoporous Peapod-like Co_3O_4 @Carbon Nanotube Arrays for High-Performance Lithium-Ion Batteries. *Angewandte Chemie International Edition*, 54(24), 7060-7064. doi:10.1002/anie.201501475.

Mezzavilla, S., Baldizzone, C., Mayrhofer, K. J. J., & Schüth, F. (2015). General Method for the Synthesis of Hollow Mesoporous Carbon Spheres with Tunable Textural Properties. *ACS Applied Materials and Interfaces*, 7(13), 12914-12922. doi:10.1021/acsami.5b02580.

Lu, J., Zhang, J., Jiao, C., Megarajan, S. K., Gu, D., Yang, G., Jiang, H., Jia, C., & Schüth, F. (2015). Effect of reduction-oxidation treatment on structure and catalytic properties of ordered mesoporous Cu-Mg-Al composite oxides. *Science Bulletin*, 60(12), 1108-1113. doi:10.1007/s11434-015-0805-0.

Mezzavilla, S., Baldizzone, C., Mayrhofer, K. J. J., & Schüth, F. (2015). General Method for the Synthesis of Hollow Mesoporous Carbon Spheres with Tunable Textural Properties. *ACS Applied Materials and Interfaces*, 7(13), 12914-12922. doi:10.1021/acsami.5b02580.

Tüysüz, H., Schüth, F., Zhi, L. J., Muellen, K., & Comotti, M. (2015). Ammonia Decomposition over Iron Phthalocyanine-Based Materials. *ChemCatChem*, 7(9), 1453-1459. doi:10.1002/cctc.201500024.

Lim, I., Schrader, W., & Schüth, F. (2015). Insights into the Molecular Assembly of Zeolitic Imidazolate Frameworks by ESI-MS. *Chemistry of Materials*, 27(8), 3088-3095. doi:10.1021/acs.chemmater.5b00614.

Kaufman-Rechulski, M. D., Källdström, M., Richter, U.-B., Schüth, F., & Rinaldi, R. (2015). Mechanocatalytic Depolymerization of Lignocellulose Performed on Hectogram and Kilogram Scales. *Industrial and Engineering Chemistry Research*, 54(16), 4581-4592. doi:10.1021/acs.iecr.5b00224.

Trotus, I.-T., Zimmermann, T., Duyckaerts, N., Geboers, J., & Schüth, F. (2015). Butadiene from acetylene-ethylene cross-metathesis. *Chemical Communications*, 51(33), 7124-7127. doi:10.1039/C5CC00853K.

Prieto, G., & Schüth, F. (2015). The Yin and Yang in the Development of Catalytic Processes: Catalysis Research and Reaction Engineering. *Angewandte Chemie International Edition*, 54(11), 3222-3239. doi:10.1002/anie.201409885.

Ausfelder, F., Beilmann, C., Bertau, M., Braeuninger, S., Heinzl, A., Hoer, R., Koch, W., Mahlendorf, F., Metzeltin, A., Peuckert, M., Plass, L., Raeuchle, K., Reuter, M., Schaub, G., Schiebahn, S., Schwab, E., Schüth, F., Stolten, D., Tessmer, G., Wagemann, K., & Ziegahn, K.-F. (2015). Energiespeicherung als Element einer sicheren Energieversorgung / Energy Storage Technologies as Options to a Secure Energy Supply. *Chemie Ingenieur Technik*, 87(1-2), 17-89. doi:10.1002/cite.201400183.

Baldizzone, C., Mezzavilla, S., Hodnik, N., Žeradjanin, A. R., Kostka, A., Schüth, F., & Mayrhofer, K. J. J. (2015). Activation of carbon-supported catalysts by ozonized acidic solutions for the direct implementation in (electro-)chemical reactors. *Chemical Communications*, 51(7), 1226-1229. doi:10.1039/c4cc08480b.

Tüysüz, H., Schüth, F., Zhi, L., Müllen, K., & Comotti, M. (2015). Ammonia Decomposition over Iron Phthalocyanine-Based Materials. *ChemCatChem*, 7 (9), 1453-1459. doi:10.1002/cctc.201500024.

Baldizzone, C., Mezzavilla, S., Hodnik, N., Zeradjanin, A. R., Kostka, A., Schüth, F., & Mayrhofer, K. J. J. (2015). Activation of carbon-supported catalysts by ozonized acidic solutions for the direct implementation in (electro-)chemical reactors. *Chemical Communications*, 51(7), 1226-1229. doi:10.1039/c4cc08480b.

Guo, Y., Gu, D., Jin, Z., Du, P.-P., Si, R., Tao, J., Xu, W.-Q., Huang, Y.-Y., Senanayake, S., Song, Q.-S., Jia, C.-J., & Schüth, F. (2015). Uniform 2 nm gold nanoparticles supported on iron oxides as active catalysts for CO oxidation reaction: structure–activity relationship. *Nanoscale*, 7(11), 4920-4928. doi:10.1039/C4NR06967F.

Auer, A. A., Cap, S., Antonietti, M., Cherevko, S., Deng, X., Papakonstantinou, G., Sundmacher, K., Brüller, S., Antonyshyn, I., Dimitratos, N., Davis, R. J., Böhm, K.-H., Fechler, N., Freakley, S., Grin, Y., Gunnoe, B. T., Haj-Hariri, H., Hutchings, G., Liang, H., Mayrhofer, K. J. J., Muellen, K., Neese, F., Ranjan, C., Sankar, M., Schlögl, R., Schüth, F., Spanos, I., Stratmann, M., Tüysüz, H., Vidaković-Koch, T., Yi, Y., & Zangari, G. (2015). MAXNET Energy – Focusing Research in Chemical Energy Conversion on the Electrocatalytic Oxygen Evolution. *Green*, 5(1-6), 7-21. doi:10.1515/green-2015-0021.

Baldizzone, C., Mezzavilla, S., Carvalho, H. W. P., Meier, J. C., Schuppert, A. K., Heggen, M., Galeano, C., Grunwaldt, J.-D., Schüth, F., & Mayrhofer, K. J. J. (2014). Confined-Space Alloying of Nanoparticles for the Synthesis of Efficient PtNi Fuel-Cell Catalysts. *Angewandte Chemie International Edition*, 53(51), 14250-14254. doi:10.1002/anie.201406812.

Baldizzone, C., Mezzavilla, S., Carvalho, H. W. P., Meier, J. C., Schuppert, A. K., Heggen, M., Galeano Nuñez, D. C., Grunwaldt, J.-D., Schüth, F., & Mayrhofer, K. J. J. (2014). Confined-space

alloying of nanoparticles for the synthesis of efficient PtNi fuel-cell catalysts. *Angewandte Chemie International Edition*, 53(51), 14250-14254. doi:10.1002/anie.201406812.

Baldizzone, C., Mezzavilla, S., Carvalho, H. W. P., Meier, J. C., Schuppert, A. K., Heggen, M., Galeano Nuñez, D. C., Grunwaldt, J.-D., Schüth, F., & Mayrhofer, K. J. J. (2014). Legieren von Nanopartikeln im begrenzten Raum: Synthese eines aktiven und stabilen PtNi-Brennstoffzellenkatalysators. *Angewandte Chemie*, 126(51), 14474-14479. doi:10.1002/ange.201406812.

Schüth, F. (2014). Hydrogen: Economics and its Role in Biorefining. In *Catalytic Hydrogenation for Biomass Valorization* (pp. 1-21). The Royal Society of Chemistry.

Loerbroks, C., van Rijn, J., Ruby, M.-P., Tong, Q., Schüth, F., & Thiel, W. (2014). Reactivity of Metal Catalysts in Glucose–Fructose Conversion. *Chemistry - A European Journal*, 20(38), 12298-12309. doi:10.1002/chem.201402437.

Schüth, F. (2014). Control of Solid Catalysts Down to the Atomic Scale: Where is the Limit? *Angewandte Chemie International Edition*, 53(33), 8599-8604. doi:10.1002/anie.201402251.

Wang, F., Mielby, J., Richter, F. H., Wang, G., Prieto, G., Kasama, T., Weidenthaler, C., Bongard, H.-J., Kegnæs, S., Fürstner, A., & Schüth, F. (2014). A Polyphenylene Support for Pd Catalysts with Exceptional Catalytic Activity. *Angewandte Chemie International Edition*, 53(33), 8645-8648. doi:10.1002/anie.201404912.

Gu, D., Jia, C., Bongard, H.-J., Spliethoff, B., Weidenthaler, C., Schmidt, W., & Schüth, F. (2014). Ordered mesoporous Cu–Ce–O catalysts for CO preferential oxidation in H₂-rich gases: Influence of copper content and pretreatment conditions. *Applied Catalysis B: Environmental*, 152-153, 11-18. doi:10.1016/j.apcatb.2014.01.011.

Zhang, A., Coma, A., & Schüth, F. (2014). Preface to Special Issue of Chinese Journal of Catalysis on the 2nd International Congress on Catalysis for Biorefineries (CatBior 2013). *Chinese Journal of Catalysis*, 35(5), 601-601. doi:10.1016/S1872-2067(14)60078-4.

Schüth, F., Rinaldi, R., Meine, N., Käldestrom, M., Hilgert, J., & Kaufman-Rechulski, M. D. (2014). Mechanocatalytic depolymerization of cellulose and raw biomass and downstream processing of the products. *Special Issue of the 2nd International Congress on Catalysis for Biorefineries (CatBior 2013)*, (234), 24-30. doi:10.1016/j.cattod.2014.02.019.

Meier, J. C., Galeano Nunez, D. C., Katsounaros, I., Witte, J., Bongard, H.-J., Topalov, A. A., Baldizzone, C., Mezzavilla, S., Schüth, F., & Mayrhofer, K. J. J. (2014). Design criteria for stable Pt/C fuel cell catalysts. *Beilstein Journal of Nanotechnology*, 5, 44-67. doi:10.3762/bjnano.5.5.

- Meier, J. C., Galeano Nuñez, D. C., Katsounaros, I., Witte, J., Bongard, H.-J., Topalov, A. A., Baldizzone, C., Mezzavilla, S., Schüth, F., & Mayrhofer, K. J. J. (2014). Design criteria for stable Pt/C fuel cell catalysts. *Beilstein Journal of Nanotechnology*, *5*(1), 44-67. doi:10.3762/bjnano.5.5.
- Bellussi, G., Caro, J., Kärger, J., Schüth, F., Stöcker, M., & Weitkamp, J. (2014). Obituary Hellmut G. Karge (1931–2013). *Microporous and Mesoporous Materials*, *184*, 70-71. doi:10.1016/j.micromeso.2013.09.034.
- Galeano Nuñez, D. C., Baldizzone, C., Bongard, H.-J., Spliethoff, B., Weidenthaler, C., Meier, J. C., Mayrhofer, K. J. J., & Schüth, F. (2014). Carbon-based yolk-shell materials for fuel cell applications. *Advanced Functional Materials*, *24*(2), 220-232. doi:10.1002/adfm.201302239.
- Galeano Nunez, D. C., Baldizzone, C., Bongard, H.-J., Spliethoff, B., Weidenthaler, C., Meier, J. C., Mayrhofer, K. J. J., & Schüth, F. (2014). Carbon-Based Yolk–Shell Materials for Fuel Cell Applications. *Advanced Functional Materials*, *24*(2), 220-232. doi:10.1002/adfm.201302239.
- Schüth, F. (2014). Encapsulation Strategies in Energy Conversion Materials. *Chemistry of Materials*, *26*(1), 423-434. doi:10.1021/cm402791v.
- Trotus, I.-T., Zimmermann, T., & Schüth, F. (2014). Catalytic Reactions of Acetylene: A Feedstock for the Chemical Industry Revisited. *Chemical Reviews*, *114*, 1761-1782. doi:10.1021/cr400357r.
- Schüth, F., & Gu, D. (2014). Synthesis of non-siliceous mesoporous oxides. *Chemical Society Reviews*, *43*: Advance Article, pp. 313 - 344. doi:10.1039/C3CS60155B.
- Käldström, M., Meine, N., Farès, C., Schüth, F., & Rinaldi, R. (2014). Correction: Deciphering ‘water-soluble lignocellulose’ obtained by mechanocatalysis: new insights into the chemical processes leading to deep depolymerization. *Green Chemistry*, *16*(12), 4994-4994. doi:10.1039/c4gc90048k.
- Käldström, M., Meine, N., Farès, C., Rinaldi, R., & Schüth, F. (2014). Fractionation of ‘water-soluble lignocellulose’ into C₅/C₆ sugars and sulfur-free lignins. *Green Chemistry*, *16*(5), 2454-2462. doi:10.1039/C4GC00168K.
- Suga, M., Asahina, S., Sakuda, Y., Kazumori, H., Nishiyama, H., Nokuo, T., Alfredsson, V., Kjellman, T., Stevens, S. M., Cho, H. S., Cho, M., Han, L., Che, S., Anderson, M. W., Schüth, F., Deng, H., Yaghi, O. M., Liu, Z., Jeong, H. Y., Stein, A., Sakamoto, K., Ryoo, R., & Terasaki, O. (2014). Recent progress in scanning electron microscopy for the characterization of fine structural details of nano materials. *Progress in Solid State Chemistry*, *42*(1-2), 1-21. doi:10.1016/j.progsolidstchem.2014.02.001.
- Schüth, F., & Eichel, R.-A. (2014). Energiespeicher für die Zukunft. Der Umbau des Energiesystems erfordert Speicher mit unterschiedlicher Kapazität und Speicherzeit. *Physik Journal*, *13*(10), 31-36.

Galeano Nunez, D. C., Meier, J. C., Soorholtz, M., Bongard, H.-J., Baldizzone, C., Mayrhofer, K. J. J., & Schüth, F. (2014). Nitrogen-Doped Hollow Carbon Spheres as a Support for Platinum-Based Electrocatalysts. *ACS Catalysis*, 4(11), 3856-3868. doi:10.1021/cs5003492.

Asahina, S., Suga, M., Takahashi, H., Jeong, H. Y., Galeano Nunez, D. C., Schüth, F., & Terasaki, O. (2014). Direct observation and analysis of yolk-shell materials using low-voltage high-resolution scanning electron microscopy: Nanometal-particles encapsulated in metal-oxide, carbon, and polymer. *APL Materials*, 2(11): 113317, pp. 113317-1-113317-7. doi:10.1063/1.4902435.

Wang, G., Hilgert, J., Richter, F., Wang, F., Bongard, H.-J., Spliethoff, B., Weidenthaler, C., & Schüth, F. (2014). Platinum-cobalt bimetallic nanoparticles in hollow carbon nanospheres for hydrogenolysis of 5-hydroxymethylfurfural. *Nature Materials*, (13), 293-300. doi:10.1038/nmat3872.

Bazula, P., Arnal, P., Galeano Nunez, D. C., Zibrowius, B., Schmidt, W., & Schüth, F. (2014). Highly microporous monodisperse silica spheres synthesized by the Stöber process. *Microporous and Mesoporous Materials*, 200, 317-325. doi:10.1016/j.micromeso.2014.07.051.

Asahina, S., Suga, M., Takahashi, H., Jeong, H. Y., Galeano Nunez, D. C., Schüth, F., & Terasaki, O. (2014). Direct observation and analysis of yolk-shell materials using low-voltage high-resolution scanning electron microscopy: Nanometal-particles encapsulated in metal-oxide, carbon, and polymer. *APL Materials*, 2(11): 113317, pp. 113317-1-113317-7. doi:10.1063/1.4902435.

Galeano Nuñez, D. C., Meier, J. C., Soorholtz, M., Bongard, H.-J., Baldizzone, C., Mayrhofer, K. J. J., & Schüth, F. (2014). Nitrogen-doped hollow carbon spheres as a support for platinum-based electrocatalysts. *ACS Catalysis*, 4(11), 3856-3868. doi:10.1021/cs5003492.

Käldström, M., Meine, N., Farès, C., Schüth, F., & Rinaldi, R. (2014). Deciphering 'water-soluble lignocellulose' obtained by mechanocatalysis: new insights into the chemical processes leading to deep depolymerization. *Green Chemistry*, (7), 3528-3538. doi:10.1039/C4GC00004H.

Zhang, T., Corma, A., & Schüth, F. (2014). Special Issue of the 2nd International Congress on Catalysis for Biorefineries (CatBior 2013) Preface. *Catalysis Today*, 234, 1-1. doi:10.1016/j.cattod.2014.03.045.

Immohr, S., Felderhoff, M., Weidenthaler, C., & Schüth, F. (2013). An Orders-of-Magnitude Increase in the Rate of the Solid-Catalyzed CO Oxidation by In Situ Ball Milling. *Angewandte Chemie International Edition in English*, 125(125), 12920-12923. doi:10.1002/ange.201305992.

Richter, F. H., Meng, Y., Klasen, T., Sahraoui, L., & Schüth, F. (2013). Structural mimicking of inorganic catalyst supports with polydivinylbenzene to improve performance in the selective aerobic oxidation of ethanol and glycerol in water. *Journal of Catalysis*, 308, 341-351. doi:10.1016/j.jcat.2013.08.014.

Grewe, T., Deng, X., Weidenthaler, C., Schüth, F., & Tüysüz, H. (2013). Design of ordered mesoporous composites materials and their electrocatalytic activities for water oxidation. *Chemistry of Materials*, 25, 4926-4935. doi:10.1021/cm403153u.

Tagliazucca, V., Schlichte, K., Weidenthaler, C., & Schüth, F. (2013). Molybdenum-based catalysts for the decomposition of ammonia: In situ X-ray diffraction studies, microstructure, and catalytic properties. *Journal of Catalysis*, 305, 277-289. doi:10.1016/j.jcat.2013.05.011.

Schüth, F. (2013). Colloidal deposition as method to study the influence of the support on the activity of gold catalysts in CO-oxidation. *Physica Status Solidi B-Basic Solid State Physics*, 250(6), 1142-1151. doi:10.1002/pssb.201248499.

Carrasquillo-Flores, R., Rinaldi, R., Källdström, M., Schüth, F., & Dumesic, J. A. (2013). Mechanocatalytic Depolymerization of Dry (Ligno)cellulose As an Entry Process for High-Yield Production of Furfurals. *ACS Catalysis*, 3(5), 993-997. doi:10.1021/cs4001333.

Zheng, W., Cotter, T. P., Kaghazchi, P., Jacob, T., Frank, B., Schlichte, K., Zhang, W., Su, D. S., Schüth, F., & Schlögl, R. (2013). Experimental and Theoretical Investigation of Molybdenum Carbide and Nitride as Catalysts for Ammonia Decomposition. *Journal of the American Chemical Society*, 135(9), 3458-3464. doi:10.1021/ja309734u.

Zheng, W., Cotter, T. P., Kaghazchi, P., Jacob, T., Frank, B., Schlichte, K., Zhang, W., Su, D. S., Schüth, F., & Schloegl, R. (2013). Experimental and Theoretical Investigation of Molybdenum Carbide and Nitride as Catalysts for Ammonia Decomposition. *Journal of the American Chemical Society*, 135(9), 3458-3464. doi:10.1021/ja309734u.

Richter, F. H., Pupovac, K., Palkovits, R., & Schüth, F. (2013). Set of Acidic Resin Catalysts To Correlate Structure and Reactivity in Fructose Conversion to 5-Hydroxymethylfurfural. *ACS Catalysis*, 3(2), 123-127. doi:10.1021/cs3007439.

Lim, I., Schrader, W., & Schüth, F. (2013). The formation of zeolites from solution - Analysis by mass spectrometry. *Microporous and Mesoporous Materials*, 166, 20-36. doi:10.1016/j.micromeso.2012.04.059.

Schüth, F. (2013). Your Journal for High Science. *Chemistry of Materials*, 24(1), 1-2. doi:10.1021/cm2032948.

Schmidt, W., Schüth, F., & Weidenthaler, C. (2013). Diffraction and Spectroscopy of Porous Solids. In *Reference Module in Chemistry, Molecular Sciences and Chemical Engineering Comprehensive Inorganic Chemistry II (Second Edition) From Elements to Applications Volume 5: Porous Materials and Nanomaterials* (pp. 1-24).

Soorholtz, M., White, R., Zimmermann, T., Titirici, M.-M., Antonietti, M., Palkovits, R., & Schüth, F. (2013). Direct methane oxidation over Pt-modified nitrogen-doped carbons. *Chemical Communications*, 49(3), 240-240. doi:10.1039/c2cc36232e.

Hilgert, J., Meine, N., Rinaldi, R., & Schüth, F. (2013). Mechanocatalytic depolymerization of cellulose combined with hydrogenolysis as a highly efficient pathway to sugar alcohols. *Energy & Environmental Science*, 6(1), 92-96. doi:10.1039/c2ee23057g.

Galeano Nuñez, D. C., Meier, J. C., Peinecke, V., Bongard, H.-J., Katsounaros, I., Topalov, A. A., Lu, A., Mayrhofer, K. J. J., & Schüth, F. (2012). Toward highly stable electrocatalysts via nanoparticle pore confinement. *Journal of the American Chemical Society*, 134(50), 20457-20465. doi:10.1021/ja308570c.

Galeano Nunez, D. C., Meier, J. C., Peinecke, V., Bongard, H.-J., Katsounaros, I., Topalov, A. A., Lu, A., Mayrhofer, K. J. J., & Schüth, F. (2012). Toward Highly Stable Electrocatalysts via Nanoparticle Pore Confinement. *Journal of the American Chemical Society*, 134(50), 20457-20465. doi:10.1021/ja308570c.

Jiang, H., Bongard, H.-J., Schmidt, W., & Schüth, F. (2012). One-pot synthesis of mesoporous Cu- γ -Al₂O₃ as bifunctional catalyst for direct dimethyl ether synthesis. *Microporous and Mesoporous Materials*, (Volume 164), 3-8. doi:10.1016/j.micromeso.2012.08.004.

Tüysüz, H., & Schüth, F. (2012). Ordered Mesoporous Materials as Catalysts. *Advances in Catalysis*, 55, 127-239. doi:10.1016/B978-0-12-385516-9.00002-8.

Schüth, F. (2012). Energy Storage Strategies. In R. Schlögl (Ed.), *Chemical Energy Storage* (pp. 35-48).

Tüysüz, H., Weidenthaler, C., Grewe, T., Salabaş, E.-L., Benitez, R. M. J., & Schüth, F. (2012). A crystal structure analysis and magnetic investigation on highly ordered mesoporous Cr₂O₃. *Inorganic Chemistry*, 51(21), 11745-11752. doi:10.1021/ic301671a.

Schüth, F., Meier, J. C., Katsounaros, I., Topalov, A. A., Kostka, A., Mayrhofer, K. J., Galeano Nunez, D. C., Bongard, H.-J., & Karschin, A. (2012). Stability investigations of electrocatalysts on the nanoscale. *Energy & Environmental Science*, 2(5), 9319-9330. doi:10.1039/c2ee22550f.

Dangwal Pandey, A., Jia, C., Schmidt, W., Leoni, M., Schwickardi, M., Schüth, F., & Weidenthaler, C. (2012). Size-Controlled Synthesis and Microstructure Investigation of Co₃O₄ Nanoparticles for Low Temperature CO Oxidation. *Journal of Physical Chemistry C*, 116(36), 19405-19412. doi:10.1021/jp306166g.

Meine, N., Rinaldi, R., & Schüth, F. (2012). Solvent-Free Catalytic Depolymerization of Cellulose to Water-Soluble Oligosaccharides. *ChemSusChem*, 5(8), 1449-1454. doi:10.1002/cssc.201100770.

Tüysüz, H., Salabaş, E.-L., Bill, E., Bongard, H.-J., Spliethoff, B., Lehmann, C. W., & Schüth, F. (2012). Synthesis of Hard Magnetic Ordered Mesoporous $\text{Co}_3\text{O}_4/\text{CoFe}_2\text{O}_4$ Nanocomposites. *Chemistry of Materials*, 24(13), 2493-2500. doi:10.1021/cm3005166.

Galeano Nunez, D. C., Katsounarus, I., Topalov, A., Kostka, A., Meier, J., Mayrhofer, K., & Schüth, F. (2012). Degradation Mechanisms of Pt/C Fuel Cell Catalysts under Simulated Start-Stop Conditions. *ACS Catalysis*, 2(5), 832-843. doi:10.1021/cs300024h.

Güttel, R., Paul, M., Galeano Nunez, D. C., & Schüth, F. (2012). Au,@ZrO₂ yolk-shell catalysts for CO oxidation: Study of particle size effect by ex-post size control of Au cores. *Journal of Catalysis*, 289, 100-104. doi:10.1016/j.jcat.2012.01.021.

Pommerin, A., Wosylus, A., Felderhoff, M., Schüth, F., & Weidenthaler, C. (2012). Synthesis, Crystal Structures, and Hydrogen-Storage Properties of $\text{Eu}(\text{AlH}_4)_2$ and $\text{Sr}(\text{AlH}_4)_2$ and of Their Decomposition Intermediates, EuAlH_5 and SrAlH_5 . *Inorganic Chemistry*, 51(7), 4143-4150. doi:10.1021/ic202492v.

Tüysüz, H., Weidenthaler, C., & Schüth, F. (2012). A Strategy for the Synthesis of Mesostructured Metal Oxides with Lower Oxidation States. *Chemistry – A European Journal*, 18(16), 5080-5086. doi:10.1002/chem.201103650.

Schüth, F., Palkovits, R., Schlögl, R., & Su, D. (2012). Ammonia as a possible element in an energy infrastructure: catalysts for ammonia decomposition. *ENERGY & ENVIRONMENTAL SCIENCE*, 5(4), 6278-6289. doi:10.1039/c2ee02865d.

Meier, J. C., Galeano Nuñez, D. C., Katsounaros, I., Topalov, A. A., Kostka, A., Schüth, F., & Mayrhofer, K. J. J. (2012). Degradation Mechanisms of Pt/C Fuel Cell Catalysts under Simulated Start-Stop Conditions. *ACS Catalysis*, 2(5), 832-843. doi:10.1021/cs300024h.

Kaper, H., Grandjean, A., Weidenthaler, C., Schüth, F., & Goettmann, F. (2012). Surface Diels-Alder Reactions as an Effective Method to Synthesize Functional Carbon Materials. *CHEMISTRY-A EUROPEAN JOURNAL*, 18(13), 4099-4106. doi:10.1002/chem.201102718.

Schüth, F. (2012). Catalysis research-where does the path lead. *Praxis der Naturwissenschaften, Chemie in der Schule*, 60, 8-13.

Meier, J. C., Katsounaros, I., Galeano Nuñez, D. C., Bongard, H.-J., Topalov, A. A., Kostka, A., Karschin, A., Schüth, F., & Mayrhofer, K. J. J. (2012). Stability investigations of electrocatalysts on the nanoscale. *Energy & Environmental Science*, 5(11), 9319-9330. doi:10.1039/c2ee22550f.

Schüth, F., Palkovits, R., Schlögl, R., & Su, D. S. (2012). Ammonia as a possible element in an energy infrastructure: catalysts for ammonia decomposition. *Energy & Environmental Science*, 5, 6278-6289. doi:10.1039/C2EE02865D.

- Wang, G.-H., Li, W.-C., Jia, K.-M., Lu, A.-H., Feyen, M., Spliethoff, B., & Schüth, F. (2011). A facile synthesis of shape- and size-controlled α -Fe₂O₃ nanoparticles through hydrothermal method. *Nano*, 6, 469-479. doi:10.1142/S1793292011002846.
- Shao, H., Felderhoff, M., Schüth, F., & Weidenthaler, C. (2011). Nanostructured Ti-catalyzed MgH₂ for hydrogen storage. *Nanotechnology*, 22: 235401. doi:10.1088/0957-4484/22/23/235401.
- Schüth, F. (2011). Chemical Compounds for Energy Storage. *Chemie Ingenieur Technik*, 83, 1984-1993. doi:10.1002/cite.201100147.
- Asahina, S., Uno, S., Suga, M., Stevens, S. M., Klingstedt, M., Okano, Y., Kudo, M., Schüth, F., Anderson, M. W., Adschiri, T., & Terasaki, O. (2011). A new HRSEM approach to observe fine structures of novel nanostructured materials. *Microporous and Mesoporous Materials*, 146, 11-17. doi:10.1016/j.micromeso.2011.06.010.
- Benitez, M. J., Petravic, O., Tüysüz, H., Schüth, F., & Zabel, H. (2011). Fingerprinting the magnetic behavior of antiferromagnetic nanostructures using remanent magnetization curves. *Physical Review B*, 83: 134424. doi:10.1103/PhysRevB.83.134424.
- Onfroy, T., Li, W. C., Schüth, F., & Knözinger, H. (2011). The Role of the Synthesis Method in the Structure Formation of Cobalt Aluminate. *Topics in Catalysis*, 54, 390-397. doi:10.1007/s11244-011-9669-y.
- Jia, C. J., Schwickardi, M., Weidenthaler, C., Schmidt, W., Korhonen, S., Weckhuysen, B. M., & Schüth, F. (2011). Co₃O₄-SiO₂ Nanocomposite: A Very Active Catalyst for CO Oxidation with Unusual Catalytic Behavior. *Journal of the American Chemical Society*, 133, 11279-11288. doi:10.1021/ja2028926.
- Hao, G. P., Li, W. C., Qian, D., Wang, G. H., Zhang, W. P., Zhang, T., Wang, A. Q., Schüth, F., Bongard, H. J., & Lu, A. H. (2011). Structurally Designed Synthesis of Mechanically Stable Poly(benzoxazine-co-resol)-Based Porous Carbon Monoliths and Their Application as High-Performance CO₂ Capture Sorbents. *Journal of the American Chemical Society*, 133, 11378-11388. doi:10.1021/ja203857g.
- Güttel, R., Paul, M., & Schüth, F. (2011). Activity improvement of gold yolk-shell catalysts for CO oxidation by doping with TiO₂. *Catalysis Science & Technology*, 1, 65-68. doi:10.1039/C0CY00026D.
- Feyen, M., Weidenthaler, C., Güttel, R., Schlichte, K., Holle, U., Lu, A. H., & Schüth, F. (2011). High-Temperature Stable, Iron-Based Core-Shell Catalysts for Ammonia Decomposition. *Chemistry – A European Journal*, 17, 598-605. doi:10.1002/chem.201001827.

Urbanczyk, R., Peil, S., Bathen, D., Heßke, C., Burfeind, J., Hauschild, K., Felderhoff, M., & Schüth, F. (2011). HT-PEM Fuel Cell System with Integrated Complex Metal Hydride Storage Tank. *Fuel Cells*, *11*, 911-920. doi:10.1002/face.201100012.

Schüth, F. (2011). Controlled nanostructures for applications in catalysis. *Physical Chemistry Chemical Physics*, *13*, 2447-2448. doi:10.1039/C1CP90005F.

Hao, G.-P., Li, W.-C., Qiang, D., Wang, G.-H., Zhang, W.-P., Zhang, T., Wang, A.-Q., Schüth, F., Bongard, H.-J., & Lu, A.-H. (2011). Structurally Designed Synthesis of Mechanically Stable Poly(benzoxazine-co-resol)-Based Porous Carbon Monoliths and Their Application as High-Performance CO₂ Capture Sorbents. *Journal of the American Chemical Society*, *133*, 11378-11388. doi:10.1021/ja203857g.

Galeano, C., Güttel, R., Paul, M., Arnal, P., Lu, A. H., & Schüth, F. (2011). Yolk-Shell Gold Nanoparticles as Model Materials for Support-Effect Studies in Heterogeneous Catalysis: Au, @C and Au, @ZrO(2) for CO Oxidation as an Example. *Chemistry-A European Journal*, *17*, 8434-8439. doi:10.1002/chem.201100318.

Shao, H., Felderhoff, M., & Schüth, F. (2011). Hydrogen storage properties of nanostructured MgH(2)/TiH(2) composite prepared by ball milling under high hydrogen pressure. *International Journal of Hydrogen Energy*, *36*, 10828-10833. doi:10.1016/j.ijhydene.2011.05.180.

Jia, C. J., & Schüth, F. (2011). Colloidal metal nanoparticles as a component of designed catalyst. *Physical Chemistry Chemical Physics*, *13*, 2457-2487. doi:10.1039/C0CP02680H.

Widmann, D., Liu, Y., Schüth, F., & Behm, R. J. (2010). Support effects in the Au-catalyzed CO oxidation – Correlation between activity, oxygen storage capacity, and support reducibility. *Journal of Catalysis*, *276*(2), 292-305. doi:10.1016/j.jcat.2010.09.023.

Felderhoff, M., Weidenthaler, C., Pommerin, A., & Schüth, F. (2010). Unstable Complex Hydrides as New Hydrogen Storage Materials. In *Proceedings of the WHEC, May 16.-21. 2010, Essen Schriften des Forschungszentrums Jülich / Energy & Environment*. Jülich: Forschungszentrum Jülich GmbH, Zentralbibliothek, Verlag, 2010.

Liu, Y., Jia, C.-J., Yamasaki, J., Terasaki, O., & Schüth, F. (2010). Highly Active Iron Oxide Supported Gold Catalysts for CO Oxidation: How Small Must the Gold Nanoparticles Be? *Angewandte Chemie, International Edition*, *49*, 5771-5775. doi:10.1002/anie.201000452.

Rinaldi, R., Meine, N., vom Stein, J., Palkovits, R., & Schüth, F. (2010). Which Controls the Depolymerization of Cellulose in Ionic Liquids: The Solid Acid Catalyst or Cellulose? *ChemSusChem*, *3*, 266-276. doi:10.1002/cssc.200900281.

- Pommerin, A., Weidenthaler, C., Schüth, F., & Felderhoff, M. (2010). Direct synthesis of pure complex aluminium hydrides by cryomilling. *Scripta Materialia*, *62*, 576-578. doi:10.1016/j.scriptamat.2009.12.041.
- Güttel, R., Paul, M., & Schüth, F. (2010). Ex-post size control of high-temperature-stable yolk-shell Au, @ ZrO₂ catalysts. *Chemical Communications*, *46*, 895-897. doi:10.1039/B921792D.
- Lu, A. H., Nitz, J. J., Comotti, M., Weidenthaler, C., Schlichte, K., Lehmann, C. W., Terasaki, O., & Schüth, F. (2010). Spatially and Size Selective Synthesis of Fe-Based Nanoparticles on Ordered Mesoporous Supports as Highly Active and Stable Catalysts for Ammonia Decomposition. *Journal of the American Chemical Society*, *132*, 14152-14162. doi:10.1021/ja105308e.
- Gu, D., Bongard, H., Deng, Y. H., Feng, D., Wu, Z. X., Fang, Y., Mao, J. J., Tu, B., Schüth, F., & Zhao, D. Y. (2010). An Aqueous Emulsion Route to Synthesize Mesoporous Carbon Vesicles and Their Nanocomposites. *Advanced Materials*, *22*, 833-837. doi:10.1002/adma.200902550.
- Gu, D., Bongard, H., Meng, Y., Miyasaka, K., Terasaki, O., Zhang, F., Deng, Y., Wu, Z., Feng, D., Fang, Y., Tu, B., Schüth, F., & Zhao, D. (2010). Growth of Single-Crystal Mesoporous Carbons with Im3m Symmetry. *Chemistry of Materials*, *22*, 4828-4833. doi:10.1021/cm101648y.
- Jia, C.-J., Liu, Y., Bongard, H., & Schüth, F. (2010). Very Low Temperature CO Oxidation over Colloidally Deposited Gold Nanoparticles on Mg(OH)₂ and MgO. *Journal of the American Chemical Society*, *132*, 1520-1522. doi:10.1021/ja909351e.
- Schmidt, W., Bussian, P., Lindén, M., Amenitsch, H., Agren, P., Tiemann, M., & Schüth, F. (2010). Accessing Ultrashort Reaction Times in Particle Formation with SAXS Experiments: ZnS Precipitation on the Microsecond Time Scale. *Journal of the American Chemical Society*, *132*(19), 6822-6826. doi:10.1021/ja101519z.
- Feyen, M., Weidenthaler, C., Schüth, F., & Lu, A. H. (2010). Synthesis of Structurally Stable Colloidal Composites as Magnetically Recyclable Acid Catalysts. *Chemistry of Materials*, *22*, 2955-2961. doi:10.1021/cm100277k.
- Rinaldi, R., Engel, P., Büchs, J., Spiess, A. C., & Schüth, F. (2010). An Integrated Catalytic Approach to Fermentable Sugars from Cellulose. *ChemSusChem*, *3*, 1151-1153. doi:10.1002/cssc.201000153.
- Liu, Y., Tüysüz, H., Jia, C. J., Schwickardi, M., Rinaldi, R., Lu, A. H., Schmidt, W., & Schüth, F. (2010). From glycerol to allyl alcohol: iron oxide catalyzed dehydration and consecutive hydrogen transfer. *Chemical Communications*, *46*, 1238-1240. doi:10.1039/B921648K.
- Meine, N., Schüth, F., & Rinaldi, R. (2010). Screening of solid acids for the hydrolysis of cellulose in ionic liquids. *DGMK-Tagungsbericht, 2010-2*, 287-291.

Jia, C.-J., Liu, Y., Schwickardi, M., Weidenthaler, C., Spliethoff, B., Schmidt, W., & Schüth, F. (2010). Small gold particles supported on MgFe₂O₄ nanocrystals as novel catalyst for CO oxidation. *Applied Catalysis A*, 386, 94-100. doi:10.1016/j.apcata.2010.07.036.

Laursen, A. B., Højholt, K. T., Lundegaard, L. F., Simonsen, S. B., Helveg, S., Schüth, F., Paul, M., Grunwaldt, J.-D., Kegnoes, S., Christensen, C. H., & Egeblad, K. (2010). Substrate Size-Selective Catalysis with Zeolite-Encapsulated Gold Nanoparticles. *Angewandte Chemie-International Edition*, 49, 3504-3507. doi:10.1002/anie.200906977.

Palkovits, R., Arlt, D., Stepowska, H., & Schüth, F. (2010). Cross-metathesis as a versatile tool for reversible surface modifications. *Microporous and Mesoporous Materials*, 132, 319-327. doi:10.1016/j.micromeso.2010.03.008.

Schüth, F. (2010). Paving the Way to New Energy Systems: The Key Role of the Chemical Sciences. *ChemSusChem*, 3, 6-8. doi:10.1002/cssc.200900272.

Schüth, F. (2010). Poröse Materialien im Überblick. *Chemie Ingenieur Technik*, 82, 769-777. doi:10.1002/cite.201000063.

Jia, C.-J., Liu, Y., Schmidt, W., Lu, A.-H., & Schüth, F. (2010). Small-sized HZSM-5 zeolite as highly active catalyst for gas phase dehydration of glycerol to acrolein. *Journal of Catalysis*, 269, 71-79. doi:10.1016/j.jcat.2009.10.017.

Feyen, M., Weidenthaler, C., Schüth, F., & Lu, A. H. (2010). Regioselectively Controlled Synthesis of Colloidal Mushroom Nanostructures and Their Hollow Derivatives. *Journal of the American Chemical Society*, 132, 6791-6799. doi:10.1021/ja101270r.

Zheng, W., Zhang, J., Zhu, B., Blume, R., Zhang, Y., Schlichte, K., Schlögl, R., Schüth, F., & Su, D. S. (2010). Structure-Function Correlations for Ru/CNT in the Catalytic Decomposition of Ammonia. *ChemSusChem*, 3(2), 226-230. doi:10.1002/cssc.200900217.

Lu, A.-H., Li, W.-C., Hao, G.-P., Spliethoff, B., Bongard, H.-J., Schaack, B. B., & Schüth, F. (2010). Easy Synthesis of Hollow Polymer, Carbon, and Graphitized Microspheres. *Angewandte Chemie - International Edition*, 49, 1615-1618. doi:10.1002/anie.200906445.

Schüth, F., & Wagemann, K. (2010). Kein Ausbau erneuerbarer Energien ohne Chemische Technik. *Chemie Ingenieur Technik*, 82, 175-175. doi:10.1002/cite.201090012.

Pommerin, A., Felderhoff, M., Schüth, F., & Weidenthaler, C. (2010). Influence of the ball milling conditions on the preparation of rare earth aluminum hydrides. *Scripta Materialia*, 63, 1128-1131. doi:10.1016/j.scriptamat.2010.08.020.

Dangwal, P. A., Güttel, R., Leoni, M., Schüth, F., & Weidenthaler, C. (2010). Influence of the Microstructure of Gold-Zirconia Yolk-Shell Catalysts on the CO Oxidation Activity. *Journal of Physical Chemistry C*, *114*, 19386-19394. doi:10.1021/jp106436h.

Palkovits, R., von Malotki, C., Baumgarten, M., Müllen, K., Baltes, C., Antonietti, M., Kuhn, P., Weber, J., Thomas, A., & Schüth, F. (2010). Development of Molecular and Solid Catalysts for the Direct Low-Temperature Oxidation of Methane to Methanol. *ChemSusChem*, *3*, 277-282. doi:10.1002/cssc.200900123.

Rinaldi, R., & Schüth, F. (2009). Acid Hydrolysis of Cellulose as the Entry Point into Biorefinery Schemes. *ChemSusChem*, *2*(12), 1096-1107. doi:10.1002/cssc.200900188.

Branton, P., Lu, A.-H., & Schüth, F. (2009). The effect of carbon pore structure on the adsorption of cigarette smoke vapour phase compounds. *Carbon*, *47*, 1005-1011. doi:10.1016/j.carbon.2008.12.003.

Benitez, M. J., Petracic, O., Tüysüz, H., Schüth, F., & Zabel, H. (2009). Decoupling of magnetic core and shell contributions in antiferromagnetic Co₃O₄ nanostructures. *EPL*, *88*(2): 27004. doi:10.1209/0295-5075/88/27004.

Xia, X., Strunk, J., Busser, W., Comotti, M., Schüth, F., & Muhler, M. (2009). Thermodynamics and Kinetics of the Adsorption of Carbon Monoxide on Supported Gold Catalysts Probed by Static Adsorption Microcalorimetry: The Role of the Support. *Journal of Physical Chemistry C*, *113*, 9328-9335. doi:10.1021/jp809804v.

Palkovits, R., Arlt, D., Stepowska, H., & Schüth, F. (2009). Reversible Immobilization of a Molecular Catalyst and Challenges of Catalyst Characterization. *Chemistry-A European Journal*, *15*, 9183-9190. doi:10.1002/chem.200802389.

Strunk, J., Kähler, K., Xia, X., Comotti, M., Schüth, F., Reinecke, T., & Muhler, M. (2009). Au/ZnO as catalyst for methanol synthesis: The role of oxygen vacancies. *Applied Catalysis A - General*, *359*, 121-128. doi:10.1016/j.apcata.2009.02.030.

Pawelke, R. H., Felderhoff, M., Weidenthaler, C., Bogdanović, B., & Schüth, F. (2009). Mechanochemical Synthesis of Ternary Potassium Transition Metal Chlorides. *Zeitschrift für Anorganische und Allgemeine Chemie*, *635*, 265-270. doi:10.1002/zaac.200800416.

Schaack, B. B., Schrader, W., & Schüth, F. (2009). Structural Insight into Germanium-Containing Silicate Species by Electrospray Ionization Mass Spectrometry (ESI-MS) and ESI-MS/MS. *Journal of Physical Chemistry B*, *113*, 11240-11246. doi:10.1021/jp903132b.

Schüth, F. (2009). Challenges in hydrogen storage. *European Physical Journal-Special Topics*, *176*, 155-166. doi:10.1140/epjst/e2009-01155-x.

- Onfroy, T., Li, W.-C., Schüth, F., & Knözinger, H. (2009). Surface chemistry of carbon-templated mesoporous aluminas. *Physical Chemistry Chemical Physics*, *11*, 3671-3679. doi:10.1039/b821505g.
- Llamas-Galilea, J., Gobin, O. C., & Schüth, F. (2009). Comparison of Single- and Multiobjective Design of Experiment in Combinatorial Chemistry for the Selective Dehydrogenation of Propane. *Journal of Combinatorial Chemistry*, *11*, 907-913. doi:10.1021/cc900061d.
- Eberle, U., Felderhoff, M., & Schüth, F. (2009). Chemical and Physical Solutions for Hydrogen Storage. *Angewandte Chemie-International Edition*, *48*, 6608-6630. doi:10.1002/anie.200806293.
- Tokay, B., Somer, M., Erdem-Senatalar, A., Schüth, F., & Thompson, R. W. (2009). Nanoparticle silicalite-1 crystallization from clear solutions: Nucleation. *Microporous and Mesoporous Materials*, *118*, 143-151. doi:10.1016/j.micromeso.2008.08.034.
- Lignier, P., Comotti, M., Schüth, F., Rousset, J.-L., & Caps, V. (2009). Effect of the titania morphology on the Au/TiO₂-catalyzed aerobic epoxidation of stilbene. *Catalysis Today*, *141*, 355-360. doi:10.1016/j.cattod.2008.04.032.
- Schaack, B. B., Schrader, W., & Schüth, F. (2009). How are Heteroelements (Ga and Ge) Incorporated in Silicate Oligomers? *Chemistry-A European Journal*, *15*, 5920-5925. doi:10.1002/chem.200900472.
- Schaack, B. B., Schrader, W., Corma, A., & Schüth, F. (2009). Nucleation of ITQ-21 Studied by ESI-MS. *Chemistry of Materials*, *21*, 4448-4453. doi:10.1021/cm901051u.
- Zhang, J., Deng, Y., Wei, J., Sun, Z., Gu, D., Bongard, H., Liu, C., Wu, H., Tu, B., Schüth, F., & Zhao, D. (2009). Design of Amphiphilic ABC Triblock Copolymer for Templating Synthesis of Large-Pore Ordered Mesoporous Carbons with Tunable Pore Wall Thickness. *Chemistry of Materials*, *21*, 3996-4005. doi:10.1021/cm901371r.
- Palkovits, R., Schmidt, W., Ilhan, Y., Erdem-Senatalar, A., & Schüth, F. (2009). Crosslinked TS-1 as stable catalyst for the Beckmann rearrangement of cyclohexanone oxime. *Microporous and Mesoporous Materials*, *117*, 228-232. doi:10.1016/j.micromeso.2008.06.041.
- Weidenthaler, C., Pommerin, A., Felderhoff, M., Sun, W. H., Wolverton, C., Bogdanović, B., & Schüth, F. (2009). Complex Rare-Earth Aluminum Hydrides: Mechanochemical Preparation, Crystal Structure and Potential for Hydrogen Storage. *Journal of the American Chemical Society*, *131*, 16735-16743. doi:10.1021/ja9042565.
- Streukens, G., & Schüth, F. (2009). Catalytic hydrogenations of toluene and stilbene with Ti- and Ce-doped complex metal hydrides. *Journal of Alloys and Compounds*, *474*, 57-60. doi:10.1016/j.jallcom.2008.06.078.

Palkovits, R., Antonietti, M., Kuhn, P., Thomas, A., & Schüth, F. (2009). Solid Catalysts for the Selective Low-Temperature Oxidation of Methane to Methanol. *Angewandte Chemie-International Edition*, 48, 6909-6912. doi:10.1002/anie.200902009.

Tüysüz, H., Llamas Galilea, J., & Schüth, F. (2009). Highly Diluted Copper in a Silica Matrix as Active Catalyst for Propylene Oxidation to Acrolein. *Catalysis Letters*, 131, 49-53. doi:10.1007/s10562-009-9909-y.

Wang, G.-H., Li, W.-C., Jia, K.-M., Spliethoff, B., Schüth, F., & Lu, A.-H. (2009). Shape and size controlled alpha-Fe₂O₃ nanoparticles as supports for gold-catalysts: Synthesis and influence of support shape and size on catalytic performance. *Applied Catalysis A-General*, 364, 42-47. doi:10.1016/j.apcata.2009.05.030.

Rinaldi, R., & Schüth, F. (2009). Design of solid catalysts for the conversion of biomass. *Energy & Environmental Science*, 2, 610-626. doi:10.1039/b902668a.

Bogdanović, B., Felderhoff, M., Pommerin, A., Schüth, F., Spielkamp, N., & Stark, A. (2009). Cycling properties of Sc- and Ce-doped NaAlH₄ hydrogen storage materials prepared by the one-step direct synthesis method. *Journal of Alloys and Compounds*, 471, 383-386. doi:10.1016/j.jallcom.2008.03.106.

Rinaldi, R., Palkovits, R., & Schüth, F. (2008). Depolymerization of Cellulose Using Solid Catalysts in Ionic Liquids. *Angewandte Chemie International Edition*, 47(42), 8047-8050. doi:10.1002/anie.200802879.

Benitez, M. J., Petravic, O., Salabaş, E.-L., Radu, F., Tüysüz, H., Schüth, F., & Zabel, H. (2008). Evidence for core-shell magnetic behavior in antiferromagnetic Co₃O₄ nanowires. *Physical Review Letters*, 101: 097206, pp. 097206/1-097206/4. doi:10.1103/PhysRevLett.101.097206.

Pavel, C. C., Palkovits, R., Schüth, F., & Schmidt, W. (2008). The benefit of mesopores in ETS-10 on the vapor-phase Beckmann rearrangement of cyclohexanone oxime. *Journal of Catalysis*, 254, 84-90. doi:10.1016/j.jcat.2007.11.020.

Tüysüz, H., Comotti, M., & Schüth, F. (2008). Ordered mesoporous Co₃O₄ as highly active catalyst for low temperature CO-oxidation. *Chemical Communications (Cambridge, U. K.)*, 4022-4024. doi:10.1039/b808815b.

Zhao, H., Kayser, M. M., Wang, Y., Palkovits, R., & Schüth, F. (2008). Mesoporous silica modified with enantiopure sulfoxide as catalyst in allylation of aldehydes. *Microporous and Mesoporous Materials*, 116, 196-203. doi:10.1016/j.micromeso.2008.04.002.

Klemm, E., Dietzsch, E., Schwarz, T., Kruppa, T., Lange de Oliveira, A., Becker, F., Markowz, G., Schirrmeister, S., Schütte, R., Caspary, K. J., Schüth, F., & Hönicke, D. (2008). Direct gas-phase

epoxidation of propene with hydrogen peroxide on TS-1 zeolite in a microstructured reactor. *Industrial & Engineering Chemistry Research*, 47, 2086-2090. doi:10.1021/ie071343+.

Schüth, F. (2008). Grundlagen der Energiediskussion. In P. Gruss, & F. Schüth (Eds.), *Die Zukunft der Energie. Die Antwort der Wissenschaft (Ein Report der Max-Planck-Gesellschaft)* (pp. 15-31). München: C. H. Beck.

Schüth, F. (2008). Chemistry paves the road to novel energy systems. *Chemsuschem*, 1, 155-156. doi:10.1002/cssc.200700155.

Tüysüz, H., Liu, Y., Weidenthaler, C., & Schüth, F. (2008). Pseudomorphic Transformation of Highly Ordered Mesoporous Co₃O₄ to CoO via Reduction with Glycerol. *Journal of the American Chemical Society*, 130, 14108-14110. doi:10.1021/ja806202v.

Bazula, P. A., Lu, A.-H., Nitz, J.-J., & Schüth, F. (2008). Surface and pore structure modification of ordered mesoporous carbons via a chemical oxidation approach. *Microporous and Mesoporous Materials*, 108, 266-275. doi:10.1016/j.micromeso.2007.04.008.

Pawelke, R. H., Felderhoff, M., Weidenthaler, C., & Schüth, F. (2008). Convenient synthesis of deuterated aluminium hydrides. *Scripta Materialia*, 59, 515-517. doi:10.1016/j.scriptamat.2008.04.042.

Schlögl, R., & Schüth, F. (2008). Transport- und Speicherformen für Energie. In P. Gruss, & F. Schüth (Eds.), *Die Zukunft der Energie. Die Antwort der Wissenschaft* (pp. 246-281). München: C. H. Beck.

Tüysüz, H., Salabaş, E. L., Weidenthaler, C., & Schüth, F. (2008). Synthesis and magnetic investigation of ordered mesoporous two-line ferrihydrite. *Journal of the American Chemical Society*, 130, 280-287. doi:10.1021/ja075528j.

Lu, A.-H., Spliethoff, B., & Schüth, F. (2008). Aqueous Synthesis of Ordered Mesoporous Carbon via Self-Assembly Catalyzed by Amino Acid. *Chemistry of Materials*, 20, 5314-5319. doi:10.1021/cm800362g.

Schüth, F. (2008). Perspectives in Catalysis - Novel Feedstocks, Novel Materials, Novel Techniques. In BASF (Ed.), *Heterogeneous Catalysts - Yesterday, Today, Tomorrow* (pp. 73-82). Ludwigshafen: BASF, The Chemical Company.

Schüth, F. (2008). Alles ganz schön oberflächlich - warum Forscher noch mehr über Katalyse wissen wollen. *Techmax*, (10), 1-4. Retrieved from <https://www.max-wissen.de/public/downloads/maxheft5512.pdf>.

Schüth, F. (2008). High-Throughput Experimentation in Heterogeneous Catalysis. In G. Ertl, H. Knözinger, F. Schüth, & J. Weitkamp (Eds.), *Handbook of Heterogeneous Catalysis* (pp. 2053-2074). Weinheim: Wiley-VCH.

Schüth, F., Hesse, M., & Unger, K. K. (2008). Precipitation and Coprecipitation. In G. Ertl, H. Knözinger, F. Schüth, & J. Weitkamp (Eds.), *Handbook of Heterogeneous Catalysis* (pp. 100-119). Weinheim: Wiley-VCH.

Baltes, C., Vukojević, S., & Schüth, F. (2008). Correlations between synthesis, precursor, and catalyst structure and activity of a large set of CuO/ZnO/Al₂O₃ catalysts for methanol synthesis. *Journal of Catalysis*, 258, 334-344. doi:10.1016/j.jcat.2008.07.004.

Wang, Y., Wang, Y., Liu, X., Guo, Y., Guo, Y. L., Lu, G., & Schüth, F. (2008). Nanocasted Synthesis of Mesoporous Metal Oxides and Mixed Oxides from Mesoporous Cubic (Ia3d) Vinylsilica. *Journal of Nanoscience and Nanotechnology*, 8, 5652-5658. doi:10.1166/jnn.2008.226.

Bogdanović, B., Felderhoff, M., & Schüth, F. (2008). Complex Hydrides. In A. Züttel, A. Borgschulte, & L. Schlapbach (Eds.), *Hydrogen as a Future Energy Carrier* (pp. 211-237). Weinheim: Wiley-VCH.

Schüth, F., & Hesse, M. (2008). Catalyst Forming. In G. Ertl, H. Knözinger, F. Schüth, & J. Weitkamp (Eds.), *Handbook of Heterogeneous Catalysis* (pp. 676-699). Weinheim: Wiley-VCH.

Lu, A.-H., Tüysüz, H., & Schüth, F. (2008). Synthesis of ordered mesoporous carbon containing highly dispersed copper-sulphur compounds in the carbon framework via a nanocasting route. *Microporous and Mesoporous Materials*, 111, 117-123. doi:10.1016/j.micromeso.2007.07.017.

Olejnik, S., Baltes, C., Muhler, M., & Schüth, F. (2008). Parallelized N₂O frontal chromatography for the fast determination of copper surface areas. *Journal of Combinatorial Chemistry*, 10, 387-390. doi:10.1021/cc700144y.

Gobin, O. C., & Schüth, F. (2008). On the Suitability of Different Representations of Solid Catalysts for Combinatorial Library Design by Genetic Algorithms. *Journal of Combinatorial Chemistry*, 10, 835-846. doi:10.1021/cc800046u.

Tüysüz, H., Lehmann, C. W., Bongard, H., Tesche, B., Schmidt, R., & Schüth, F. (2008). Direct imaging of surface topology and pore system of ordered mesoporous silica (MCM-41, SBA-15, and KIT-6) and nanocast metal oxides by high resolution scanning electron microscopy. *Journal of the American Chemical Society*, 130, 11510-11517. doi:10.1021/ja803362s.

Schüth, F. (2007). High-throughput experiments for synthesis and applications of zeolites. *Studies in Surface Science and Catalysis*, 157(2005), 161-180. doi:10.1016/S0167-2991(05)80010-2.

- Zhang, J., Comotti, M., Schüth, F., Schlögl, R., & Su, D. (2007). Commercial Fe- or Co-containing carbon nanotubes as catalysts for NH₃ decomposition. *Chemical Communications (Cambridge, U. K.)*, 1916-1918. doi:10.1039/b700969k.
- Schüth, F., & Marlow, F. (2007). Materials science - Colloidal crystals find new order. *Nature*, *449*, 550-551. doi:10.1038/449550a.
- Lu, A.-H., Li, W.-C., Hou, Z., & Schüth, F. (2007). Molecular level dispersed Pd clusters in the carbon walls of ordered mesoporous carbon as a highly selective alcohol oxidation catalyst. *Chemical Communications (Cambridge, U. K.)*, 1038-1040. doi:10.1039/b613834a.
- Procelewska, J., Llamas Galilea, J., Clerc, F., Farrusseng, D., & Schüth, F. (2007). Computational methods in the development of a knowledge-based system for the prediction of solid catalyst performance. *Combinatorial Chemistry & High Throughput Screening*, *10*, 37-50. doi:10.2174/138620707779802805.
- Gobin, O. C., Martinez Joaristi, A., & Schüth, F. (2007). Multi-objective optimization in combinatorial chemistry applied to the selective catalytic reduction of NO with C₃H₆. *Journal of Catalysis*, *252*, 205-214. doi:10.1016/j.jcat.2007.09.025.
- Bogdanović, B., Eberle, U., Felderhoff, M., & Schüth, F. (2007). Complex aluminum hydrides. *Scripta Materialia*, *56*, 813-816. doi:10.1016/j.scriptamat.2007.01.004.
- Rumplecker, A., Kleitz, F., Salabaş, E.-L., & Schüth, F. (2007). Hard templating pathways for the synthesis of nanostructured porous Co₃O₄. *Chemistry of Materials*, *19*, 485-496. doi:10.1021/cm0610635.
- Yang, C.-M., Lin, H.-A., Zibrowius, B., Spliethoff, B., Schüth, F., Liou, S.-C., Chu, M.-W., & Chen, C.-H. (2007). Selective surface functionalization and metal deposition in the micropores of mesoporous silica SBA-15. *Chemistry of Materials*, *19*, 3205-3211. doi:10.1021/cm070036r.
- Lu, A.-H., Salabaş, E.-L., & Schüth, F. (2007). Magnetic nanoparticles: Synthesis, protection, functionalization, and application. *Angewandte Chemie-International Edition*, *46*, 1222-1244. doi:10.1002/anie.200602866.
- Pelster, S. A., Kalamajka, R., Schrader, W., & Schüth, F. (2007). Monitoring the nucleation of zeolites by mass spectrometry. *Angewandte Chemie-International Edition*, *46*, 2299-2302. doi:10.1002/anie.200604513.
- Polarz, S., Orlov, A. V., Schüth, F., & Lu, A.-H. (2007). Preparation of high-surface-area zinc oxide with ordered porosity, different pore sizes, and nanocrystalline walls. *Chemistry-A European Journal*, *13*, 592-597. doi:10.1002/chem.200600428.

Rumplecker, A., Zibrowius, B., Schmidt, W., Yang, C.-M., & Schüth, F. (2007). Evolution of mesoporosity and microporosity of SBA-15 during a treatment with sulfuric acid. In D. Zhao, S. Qiu, Y. Tang, & C. Yu (Eds.), *Recent Progress in Mesoporous Materials* (pp. 195-198). Amsterdam: Elsevier.

Comotti, M., Weidenthaler, C., Li, W.-C., & Schüth, F. (2007). Comparison of gold supported catalysts obtained by using different allotropic forms of titanium dioxide. *Topics in Catalysis*, *44*, 275-284. doi:10.1007/s11244-007-0300-1.

Pelster, S. A., Weimann, B., Schaack, B. B., Schrader, W., & Schüth, F. (2007). Dynamics of silicate species in solution studied by mass spectrometry with isotopically labeled compounds. *Angewandte Chemie-International Edition*, *46*, 6674-6677. doi:10.1002/anie.200701927.

Pelster, S. A., Schüth, F., & Schrader, W. (2007). Detailed study on the use of electrospray mass spectrometry to investigate speciation in concentrated silicate solutions. *Analytical Chemistry*, *79*, 6005-6012. doi:10.1021/ac0706729.

Felderhoff, M., Pommerin, A., Mamatha, M., Bogdanović, B., & Schüth, F. (2007). Tribochemische Synthese von Hydriden durch Hochenergie-Kugelmahlung. *Chemie Ingenieur Technik*, *79*, 907-911. doi:10.1002/cite.200700049.

Bandyopadhyay, M., Korsak, O., van den Berg, M. W. E., Grunert, W., Birkner, A., Li, W., Schüth, F., & Gies, H. (2006). Gold nano-particles stabilized in mesoporous MCM-48 as active CO-oxidation catalyst. *Microporous and Mesoporous Materials*, *89*, 158-163. doi:10.1016/j.micromeso.2005.09.029.

Schwickardi, M., Olejnik, S., Salabaş, E.-L., Schmidt, W., & Schüth, F. (2006). Scalable synthesis of activated carbon with superparamagnetic properties. *Chemical Communications (Cambridge, U. K.)*, 3987-3989. doi:10.1039/b608231a.

Lu, A.-H., & Schüth, F. (2006). Nanocasting: A versatile strategy for creating nanostructured porous materials. *Advanced Materials*, *18*, 1793-1805. doi:10.1002/adma.200600148.

Salabaş, E.-L., Rumplecker, A., Kleitz, F., Radu, F., & Schüth, F. (2006). Exchange anisotropy in nanocasted Co₃O₄ nanowires. *Nano Letters*, *6*, 2977-2981. doi:10.1021/nl060528n.

Lu, A.-H., Li, W.-C., Schmidt, W., & Schüth, F. (2006). Low temperature oxidative template removal from SBA-15 using MnO₄⁻ solution and carbon replication of the mesoporous silica product. *Journal of Materials Chemistry*, *16*, 3396-3401. doi:10.1039/b607542h.

Arnal, P. M., Weidenthaler, C., & Schüth, F. (2006). Highly monodisperse zirconia-coated silica spheres and zirconia/silica hollow spheres with remarkable textural properties. *Chemistry of Materials*, *18*, 2733-2739. doi:10.1021/cm052580a.

Bellosta von Colbe, J. M., Schmidt, W., Felderhoff, M., Bogdanović, B., & Schüth, F. (2006). Hydrogen-isotope scrambling on doped sodium alanate. *Angewandte Chemie-International Edition*, 45, 3663-3665. doi:10.1002/anie.200504425.

Pelster, S. A., Schrader, W., & Schüth, F. (2006). Monitoring temporal evolution of silicate species during hydrolysis and condensation of silicates using mass spectrometry. *Journal of the American Chemical Society*, 128, 4310-4317. doi:10.1021/ja057423r.

Arnal, P. M., Comotti, M., & Schüth, F. (2006). High-temperature-stable catalysts by hollow sphere encapsulation. *Angewandte Chemie-International Edition*, 45(48), 8224-8227. doi:10.1002/anie.200603507.

Palkovits, R., Yang, C.-M., Olejnik, S., & Schüth, F. (2006). Active sites on SBA-15 in the Beckmann rearrangement of cyclohexanone oxime to epsilon-caprolactam. *Journal of Catalysis*, 243, 93-98. doi:10.1016/j.jcat.2006.07.004.

Wang, Y., Wang, Y., Yang, C.-M., Lu, G., & Schüth, F. (2006). Tuning the mesostructures of vinyl silica by adjusting the micellar curvature. *Langmuir*, 22, 5491-5496. doi:10.1021/la0601915.

Schüth, F., Baumes, L., Clerc, F., Demuth, D., Farrusseng, D., Llamas-Galilea, J., Klanner, C., Klein, J., Martinez-Joaristi, A., Procelewska, J., Saupe, M., Schunk, S., Schwickardi, M., Strehlau, W., & Zech, T. (2006). High throughput experimentation in oxidation catalysis: Higher integration and "intelligent" software. *Catalysis Today*, 117, 284-290. doi:10.1016/j.cattod.2006.05.038.

Lu, A.-H., Li, W.-C., Schmidt, W., & Schüth, F. (2006). Fabrication of hierarchically structured carbon monoliths via self-binding and salt templating. *Microporous and Mesoporous Materials*, 95, 187-192. doi:10.1016/j.micromeso.2006.05.024.

Baltes, C., Vukojević, S., & Schüth, F. (2006). *Real Condition High Throughput Screening of Cu/ZnO/Al₂O₃ Catalysts for Methanol Synthesis*.

Mamatha, A., Bogdanović, B., Felderhoff, M., Pommerin, A., Schmidt, W., Schüth, F., & Weidenthaler, C. (2006). Mechanochemical preparation and investigation of properties of magnesium, calcium and lithium-magnesium alanates. *Journal of Alloys and Compounds*, 407, 78-86. doi:10.1016/j.jallcom.2005.06.069.

Ritzkopf, I., Vukojević, S., Weidenthaler, C., Grunwaldt, J. D., & Schüth, F. (2006). Decreased CO production in methanol steam reforming over Cu/ZrO₂ catalysts prepared by the microemulsion technique. *Applied Catalysis A-General*, 302, 215-223. doi:10.1016/j.apcata.2006.01.014.

Li, W.-C., Comotti, M., Lu, A.-H., & Schüth, F. (2006). Nanocast mesoporous MgAl₂O₄ spinel monoliths as support for highly active gold CO oxidation catalyst. *Chemical Communications (Cambridge, U. K.)*, 1772-1774. doi:10.1039/b601109h.

- Berlier, G., Meneau, F., Sankar, G., Catlow, C. R. A., Thomas, J. M., Spliethoff, B., Schüth, F., & Coluccia, S. (2006). Synthesis and characterisation of small ZnS particles. *Research on Chemical Intermediates*, 32, 683-693. doi:10.1163/156856706778400334.
- Comotti, M., Li, W.-C., Spliethoff, B., & Schüth, F. (2006). Support effect in high activity gold catalysts for CO oxidation. *Journal of the American Chemical Society*, 128, 917-924. doi:10.1021/ja0561441.
- Weiss, R., Guo, Y., Vukojević, S., Khodeir, L., Boese, R., Schüth, F., Muhler, M., & Epple, M. (2006). Catalytic activity of copper oxide/zinc oxide composites prepared by thermolysis of crystallographically defined bimetallic coordination compounds. *European Journal of Inorganic Chemistry*, 1796-1802. doi:10.1002/ejic.200600005.
- Streukens, G., Bogdanović, B., Felderhoff, M., & Schüth, F. (2006). Dependence of dissociation pressure upon doping level of Ti-doped sodium alanate - a possibility for "thermodynamic tailoring" of the system. *Physical Chemistry Chemical Physics*, 8, 2889-2892. doi:10.1039/b603268k.
- Schüth, F., Bogdanović, B., & Felderhoff, M. (2006). Alanate based compound for hydrogen storage. *Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry*, 51, 513-514.
- Schüth, F. (2006). Mobile Wasserstoffspeicher mit Hydriden der leichten Elemente. *Nachrichten aus der Chemie*, 54, 24-28. doi:10.1002/nadc.20060540111.
- Schüth, F. (2006). Chemische Verfahren zur Wasserstoffspeicherung. *Die Aktuelle Wochenschau der GDCh-Fachgruppe Angewandte Elektrochemie*, (29. Woche), 1-5. Retrieved from <http://archiv.aktuelle-wochenschau.de/2006/woche29b/woche29b.html>.
- Schüth, F., & Demuth, D. (2006). High-Throughput-Experimentation in der heterogenen Katalyse. *Chemie Ingenieur Technik*, 78, 851-861. doi:10.1002/cite.200600047.
- Schüth, F. (2006). Schlüsseltechnologie der chemischen Industrie - Heterogene Katalyse. *Chemie in unserer Zeit*, 40, 92-103. doi:10.1002/ciuz.200600374.
- Li, W.-C., Comotti, M., & Schüth, F. (2006). Highly reproducible syntheses of active Au/TiO₂ catalysts for CO oxidation by deposition-precipitation or impregnation. *Journal of Catalysis*, 237, 190-196. doi:10.1016/j.jcat.2005.11.006.
- Mamatha, M., Weidenthaler, C., Pommerin, A., Felderhoff, M., & Schüth, F. (2006). Comparative studies of the decomposition of alanates followed by in situ XRD and DSC methods. *Journal of Alloys and Compounds*, 416, 303-314. doi:10.1016/j.jallcom.2005.09.004.

Arnal, P. M., Schüth, F., & Kleitz, F. (2006). A versatile method for the production of monodisperse spherical particles and hollow particles: Templating from binary core-shell structures. *Chemical Communications (Cambridge, U. K.)*, 1203-1205. doi:10.1039/B517196B.

Weidenthaler, C., Lu, A.-H., Schmidt, W., & Schüth, F. (2006). X-ray photoelectron spectroscopic studies of PAN-based ordered mesoporous carbons (OMC). *Microporous and Mesoporous Materials*, 88, 238-243. doi:10.1016/j.micromeso.2005.09.015.

Lu, A.-H., Li, W.-C., Salabas, E.-L., Spliethoff, B., & Schüth, F. (2006). Low temperature catalytic pyrolysis for the synthesis of high surface area, nanostructured graphitic carbon. *Chemistry of Materials*, 18, 2086-2094. doi:10.1021/cm060135p.

Bogdanović, B., Felderhoff, M., Pommerin, A., Schüth, F., & Spielkamp, N. (2006). Advanced hydrogen-storage materials based on Sc-, Ce-, and Pr-doped NaAlH₄. *Advanced Materials*, 18, 1198-1201. doi:10.1002/adma.200501367.

Bellosta von Colbe, J. M., Schmidt, W., Felderhoff, M., Bogdanović, B., & Schüth, F. (2006). Hydrogen-isotope scrambling on doped sodium alanate. *Angewandte Chemie*, 118, 3745-3747. doi:10.1002/ange.200504425.

Li, W.-C., Lu, A.-H., & Schüth, F. (2005). Preparation of monolithic carbon aerogels and investigation of their pore interconnectivity by a nanocasting pathway. *Chemistry of Materials*, 17(14), 3620-3626. doi:10.1021/cm050345m.

Li, W.-C., Lu, A.-H., Palkovits, R., Schmidt, W., Spliethoff, B., & Schüth, F. (2005). Hierarchically structured monolithic silicalite-1 consisting of crystallized nanoparticles and its performance in the Beckmann rearrangement of cyclohexanone oxime. *Journal of the American Chemical Society*, 127(36), 12595-12600. doi:10.1021/ja052693v.

Schüth, F., & Schunk, S. (2005). Combinatorial approaches to design complex metal oxides. In J. L. Fierro (Ed.), *Metal Oxides: Chemistry and Applications* (pp. 391-412). Boca Raton: CRC Press.

Lu, A.-H., Schmidt, W., Kiefer, W., & Schüth, F. (2005). High surface area mesoporous SiC synthesized via nanocasting and carbothermal reduction process. *Journal of Materials Science*, 40(18), 5091-5093. doi:10.1007/s10853-005-1115-8.

Lu, A.-H., Li, W.-C., Muratova, N., Spliethoff, B., & Schüth, F. (2005). Evidence for C-C bond cleavage by H₂O₂ in a mesoporous CMK-5 type carbon at room temperature. *Chemical Communications (Cambridge, U. K.)*, (41), 5184-5186. doi:10.1039/b509300g.

Schüth, F. (2005). Engineered porous catalytic materials. *Annual Review of Materials Research*, 35, 209-238. doi:10.1146/annurev.matsci.35.012704.142050.

Weidenthaler, C., Pommerin, A., Felderhoff, M., Schmidt, W., Bogdanović, B., & Schüth, F. (2005). Evidence for the existence of β - Na_3AlH_6 : Monitoring the phase transformation from α - Na_3AlH_6 by in situ methods. *Journal of Alloys and Compounds*, 398(1-2), 228-234. doi:10.1016/j.jallcom.2005.02.021.

Farrusseng, D., Klanner, C., Baumes, L., Lengliz, M., Mirodatos, C., & Schüth, F. (2005). Design of discovery libraries for solids based on QSAR models. *QSAR & Combinatorial Science*, 24(1), 78-93. doi:10.1002/qsar.200420066.

Schwickardi, M., Spliethoff, B., Schmidt, W., & Schüth, F. (2005). Direct synthesis of supported noble metal catalysts via the activated carbon route. *Zeitschrift für physikalische Chemie*, 219(7), 939-948. doi:10.1524/zpch.219.7.939.67085.

Kubaneck, P., Schmidt, H.-W., Spliethoff, B., & Schüth, F. (2005). Parallel IR spectroscopic characterization of CO chemisorption on Pt loaded zeolites. *Microporous and Mesoporous Materials*, 77(1), 89-96. doi:10.1016/j.micromeso.2004.08.016.

Schüth, F. (2005). Neue Materialien für die Heterogene Katalyse. *Chemie-Ingenieur-Technik*, 77(9), 1399-1416. doi:10.1002/cite.200500106.

Schüth, F. (2005). Technology - Hydrogen and hydrates. *Nature (London)*, 434(7034), 712-713. doi:10.1038/434712a.

Palkovits, R., Ilhan, Y., Schmidt, W., Yang, C.-M., Erdem-Sentalar, A., & Schüth, F. (2005). Beckmann rearrangement on microporous and mesoporous silica. In J. Cejka (Ed.), *Molecular Sieves: From Basic Research to Industrial Applications, Studies in Surface Science and Catalysis* (Vol.158, pp. 1255-1262). Amsterdam: Elsevier.

Li, W.-C., Lu, A.-H., Weidenthaler, C., Goddard, R., Bongard, H.-J., & Schüth, F. (2005). Growth of single crystal α - Al_2O_3 nanofibers on a carbon aerogel substrate. *Journal of Materials Chemistry*, 15(29), 2993-2996. doi:10.1039/b507646c.

Lu, A.-H., Schmidt, W., Tatar, S., Spliethoff, B., Popp, J., Kiefer, W., & Schüth, F. (2005). Formation of amorphous carbon nanotubes on ordered mesoporous silica support. *Carbon*, 43(8), 1811-1814. doi:10.1016/j.carbon.2005.02.024.

Wang, Y., Yang, C.-M., Schmidt, W., Spliethoff, B., Bill, E., & Schüth, F. (2005). Weakly ferromagnetic ordered mesoporous Co_3O_4 synthesized by nanocasting from vinyl-functionalized cubic Ia3d mesoporous silica. *Advanced Materials*, 17(1), 53-56. doi:10.1002/adma.200400777.

Lu, A.-H., Li, W.-C., Schmidt, W., & Schüth, F. (2005). Template synthesis of large pore ordered mesoporous carbon. *Microporous and Mesoporous Materials*, 80(1-3), 117-128. doi:10.1016/j.micromeso.2004.12.007.

- Taguchi, A., & Schüth, F. (2005). Ordered mesoporous materials in catalysis. *Microporous and Mesoporous Materials*, 77(1), 1-45. doi:10.1016/j.micromeso.2004.06.030.
- Yang, C.-M., Weidenthaler, C., Spliethoff, B., Mamatha, M., & Schüth, F. (2005). Facile Template synthesis of ordered mesoporous carbon with polypyrrole as carbon precursor. *Chemistry of Materials*, 17(2), 355-358. doi:10.1021/cm049164v.
- Vukojević, S., Trapp, O., Grunwaldt, J.-D., Kiener, C., & Schüth, F. (2005). Quasi-homogeneous methanol synthesis over highly active copper nanoparticles. *Angewandte Chemie-International Edition*, 44(48), 7978-7981. doi:10.1002/anie.200503169.
- Schüth, F., Wang, Y., Yang, C.-M., & Zibrowius, B. (2005). Mesostructured silica and organically functionalized silica - status and perspectives. In N. Auner, & J. Weis (Eds.), *Organosilicon Chemistry VI* (pp. 860-868). Weinheim: Wiley-VCH.
- Bellosta von Colbe, J. M. B., Felderhoff, M., Bogdanović, B., Schüth, F., & Weidenthaler, C. (2005). One-step direct synthesis of a Ti-doped sodium alanate hydrogen storage material. *Chemical Communications (Cambridge, U. K.)*, (37), 4732-4734. doi:10.1039/b506502j.
- Lu, A.-H., Li, W.-C., Matoussevitch, N., Spliethoff, B., Bönnemann, H., & Schüth, F. (2005). Highly stable carbon-protected cobalt nanoparticles and graphite shells. *Chemical Communications (Cambridge, U. K.)*, (1), 98-100. doi:10.1039/b414146f.
- Li, W.-C., Lu, A.-H., Schmidt, W., & Schüth, F. (2005). High surface area, mesoporous, glassy alumina with a controllable pore size by nanocasting from carbon aerogels. *Chemistry-A European Journal*, 11(5), 1658-1664. doi:10.1002/chem.200400776.
- Lu, A.-H., & Schüth, F. (2005). Nanocasting pathways to create ordered mesoporous solids. *Comptes Rendus Chimie*, 8(3-4), 609-620. doi:10.1016/j.crci.2004.10.020.
- Grunwaldt, J. D., Kiener, C., Schüth, F., & Baiker, A. (2005). X-ray absorption spectroscopy on CuZnO catalyts selected by high throughput experimentation techniques. *Physica Scripta*, 115, 819-822. doi:10.1238/Physica.Topical.115a00819.
- Lu, A.-H., Schmidt, W., Spliethoff, B., & Schüth, F. (2004). Synthesis and characterization of nanocast silica NCS-1 with CMK-3 as a template. *Chemistry-A European Journal*, 10(23), 6085-6092. doi:10.1002/chem.200400180.
- Lu, A., Kiefer, A., Schmidt, W., & Schüth, F. (2004). Synthesis of polyacrylonitrile-based ordered mesoporous carbon with tunable pore structures. *Chemistry of Materials*, 16(1), 100-103. doi:10.1021/cm031095h.

Lu, A.-H., Li, W.-C., Kiefer, A., Schmidt, W., Bill, E., Fink, G., & Schüth, F. (2004). Fabrication of magnetically separable mesostructured silica with an open pore system. *Journal of the American Chemical Society*, 126(28), 8616-8617. doi:10.1021/ja0486521.

Kubaneck, P., Busch, O., Thomson, S., Schmidt, H.-W., & Schüth, F. (2004). Imaging reflection IR spectroscopy as a tool to achieve higher integration for high-throughput experimentation in catalysis research. *Journal of Combinatorial Chemistry*, 6(3), 420-425. doi:10.1021/cc049957e.

Busch, O. M., Brijoux, W., Thomson, S., & Schüth, F. (2004). Spatially resolving infrared spectroscopy for parallelized characterization of acid sites of catalysts via pyridine sorption: Possibilities and limitations. *Journal of Catalysis*, 222(1), 174-179. doi:10.1016/j.jcat.2003.11.002.

Yang, C.-M., Wüstefeld, H., Kalwei, M., & Schüth, F. (2004). Exploring the catalytic activity of metal nanoparticles in functionalized mesoporous silica. In E. van Steen, M. Claeys, & L. H. Callanan (Eds.), *Recent Advances in the Science and Technology of Zeolites and Related Materials* (pp. 2574-2580). Amsterdam: Elsevier.

Yang, C.-M., Wüstefeld, H. U., Kalwei, M., & Schüth, F. (2004). *Exploring the catalytic activity of metal nanoparticles in functionalized mesoporous silica*. Cape Town, South Africa: The Catalysis Society of South Africa.

Schüth, F., Bogdanović, B., & Felderhoff, M. (2004). Light metal hydrides and complex hydrides for hydrogen storage. *Chemical Communications (Cambridge, U. K.)*, (20), 2249-2258. doi:10.1039/b406522k.

Wang, Y., Zibrowius, B., Yang, C.-M., Spliethoff, B., & Schüth, F. (2004). Synthesis and characterization of large-pore vinyl-functionalized mesoporous silica SBA-15. *Chemical Communications (Cambridge, U. K.)*, (1), 46-47. doi:10.1039/b309578a.

Lu, A.-H., Li, W.-C., Schmidt, W., Kiefer, W., & Schüth, F. (2004). Easy synthesis of an ordered mesoporous carbon with a hexagonally packed tubular structure. *Carbon*, 42(14), 2939-2948. doi:10.1016/j.carbon.2004.07.006.

Klanner, C., Farrusseng, D., Baumes, L., Lengliz, M., Mirodatos, C., & Schüth, F. (2004). The development of descriptors for solids: Teaching "catalytic intuition" to a computer. *Angewandte Chemie-International Edition*, 43(40), 5347-5349. doi:10.1002/anie.200460731.

Wingen, A., Kleitz, F., & Schüth, F. (2004). Ordered Mesoporous Materials: Preparation and Application in Catalysis. In M. Baerns (Ed.), *Basic Principles in Applied Catalysis* (pp. 281-319). Berlin: Springer-Verlag.

Lu, A.-H., Schmidt, W., Matoussevitch, N., Bönnemann, H., Spliethoff, B., Tesche, B., Bill, E., Kiefer, W., & Schüth, F. (2004). Nanoengineering of a magnetically separable hydrogenation

catalyst. *Angewandte Chemie-International Edition*, 43(33), 4303-4306.
doi:10.1002/anie.200454222.

Schüth, F. (2004). The evolution of ordered mesoporous materials. In O. Terasaki (Ed.), *MESOPOROUS CRYSTALS AND RELATED NANO-STRUCTURED MATERIALS* (pp. 1-13). AMSTERDAM: ELSEVIER SCIENCE BV.

Li, W.-C., Lu, A.-H., Weidenthaler, C., & Schüth, F. (2004). Hard-templating pathway to create mesoporous magnesium oxide. *Chemistry of Materials*, 16(26), 5676-5681.
doi:10.1021/cm048759n.

Kaskel, S., Schüth, F., & Stöcker, M. (2004). Metal-organic open frameworks (MOFs). *Microporous and Mesoporous Materials*, 73(1-2), 1-1. doi:10.1016/j.micromeso.2004.04.001.

Yang, C.-M., Wang, Y., Zibrowius, B., & Schüth, F. (2004). Formation of cyanide-functionalized SBA-15 and its transformation to carboxylate-functionalized SBA-15. *Physical Chemistry Chemical Physics*, 6(9), 2461-2467. doi:10.1039/b314538g.

Yang, C.-M., Zibrowius, B., Schmidt, W., & Schüth, F. (2004). Stepwise removal of the copolymer template from mesopores and micropores in SBA-15. *Chemistry of Materials*, 16(15), 2918-2925.
doi:10.1021/cm049526z.

Felderhoff, M., Klementiev, K., Grünert, W., Spliethoff, B., Tesche, B., Bellosta von Colbe, J. M., Bogdanović, B., Härtel, M., Pommerin, A., Schüth, F., & Weidenthaler, C. (2004). Combined TEM-EDX and XAFS studies of Ti-doped sodium alanate. *Physical Chemistry Chemical Physics*, 6(17), 4369-4374. doi:10.1039/b403657n.

Bellosta von Colbe, J. M., Bogdanović, B., Felderhoff, M., Pommerin, A., & Schüth, F. (2004). Recording of hydrogen evolution - a way for controlling the doping process of sodium alanate by ball milling. *Journal of Alloys and Compounds*, 370(1-2), 104-109.
doi:10.1016/j.jallcom.2003.09.146.

Wang, Y. Q., Yang, C.-M., Zibrowius, B., Spliethoff, B., Lindén, M., & Schüth, F. (2003). Directing the formation of vinyl-functionalized silica to the hexagonal SBA-15 or large-pore Ia3d structure. *Chemistry of Materials*, 15(26), 5029-5035. doi:10.1021/cm034769x.

Lu, A. H., Smått, J. H., Lindén, M., & Schüth, F. (2003). Synthesis of carbon monoliths with a multi-modal pore system by a one step impregnation technique. *New Carbon Materials*, 18(4), 265-269. Retrieved from http://caod.oriprobe.com/articles/6068370/Synthesis_of_carbon_monoliths_with_a_multi_modal_pore_system_bya_one_s.htm.

Yang, C.-M., Kalwei, M., Schüth, F., & Chao, K.-J. (2003). Gold nanoparticles in SBA-15 showing catalytic activity in CO oxidation. *Applied Catalysis A-General*, 254(2), 289-296. doi:10.1016/S0926-860X(03)00490-3.

Kleitz, F., Schmidt, W., & Schüth, F. (2003). Calcination behavior of different surfactant-templated mesostructured silica materials. *Microporous and Mesoporous Materials*, 65(1), 1-29. doi:10.1016/S1387-1811(03)00506-7.

Yang, C.-M., Zibrowius, B., Schmidt, W., & Schüth, F. (2003). Consecutive generation of mesopores and micropores in SBA-15. *Chemistry of Materials*, 15(20), 3739-3741. doi:10.1021/cm031109j.

Lu, A.-H., Schmidt, W., Spliethoff, B., & Schüth, F. (2003). Synthesis of ordered mesoporous carbon with bimodal pore system and high pore volume. *Advanced Materials*, 15(19), 1602-1606. doi:10.1002/adma.200305176.

Tkachenko, O. P., Klementiev, K. V., Löffler, E., Ritzkopf, I., Schüth, F., Bandyopadhyay, M., Grabowski, S., Gies, H., Hagen, V., Muhler, M., Lu, L. H., Fischer, R. A., & Grünert, W. (2003). The structure of zinc and copper oxide species hosted in porous siliceous matrices. *Physical Chemistry Chemical Physics*, 5(19), 4325-4334. doi:10.1039/b303429a.

Klanner, C., Farrusseng, D., Baumes, L., Mirodatos, C., & Schüth, F. (2003). How to design diverse libraries of solid catalysts? *QSAR & Combinatorial Science*, 22(7), 729-736. doi:10.1002/qsar.200320003.

Janssen, A. H., Yang, C.-M., Wang, Y., Schüth, F., Koster, A. J., & de Jong, K. P. (2003). Localization of small metal (oxide) particles in SBA-15 using bright-field electron tomography. *Journal of Physical Chemistry B*, 107(38), 10552-10556. doi:10.1021/jp034750h.

Czuryszkiewicz, T., Kleitz, F., Schüth, F., & Lindén, M. (2003). Combined use of cosurfactant/surfactant mixtures and swelling agents in the synthesis of mesoporous titanium oxophosphates. *Chemistry of Materials*, 15(19), 3704-3709. doi:10.1021/cm021293t.

Lu, A.-H., Schmidt, W., & Schüth, F. (2003). Simplified novel synthesis of ordered mesoporous carbon with a bimodal pore system. *New Carbon Materials*, 18(3), 181-185.

Johann, T., Brenner, A., Schwickardi, M., Busch, O., Marlow, F., Schunk, S., & Schüth, F. (2003). Listening to catalysis - a real time parallel method for high throughput product analysis. *Catalysis Today*, 81(3), 449-455. doi:10.1016/S0920-5861(03)00144-5.

Bogdanović, B., Felderhoff, M., Kaskel, S., Pommerin, A., Schlichte, K., & Schüth, F. (2003). Improved hydrogen storage properties of Ti-doped sodium alanate using titanium nanoparticles as doping agents. *Advanced Materials*, 15(12), 1012-1015. doi:10.1002/adma.200304711.

Lehmann, E., Vasenkov, S., Kärger, J., Zadrozna, G., Kornatowski, J., Weiß, Ö., & Schüth, F. (2003). Inhomogeneous distribution of water adsorbed under low pressure in CrAPO-5 and SAPO-5: An interference microscopy study. *Journal of Physical Chemistry B*, 107(20), 4685-4687. doi:10.1021/jp034616x.

Kiener, C., Kurtz, M., Wilmer, H., Hoffmann, C., Schmidt, H.-W., Grunwaldt, J.-D., Muhler, M., & Schüth, F. (2003). High-throughput screening under demanding conditions: Cu/ZnO catalysts in high pressure methanol synthesis as an example. *Journal of Catalysis*, 216(1-2), 110-119. doi:10.1016/S0021-9517(02)00134-3.

Bogdanović, B., Felderhoff, M., Gehrman, M., Härtel, M., Pommerin, A., Schüth, F., Weidenthaler, C., & Zibrowius, B. (2003). Investigation of hydrogen discharging and recharging processes of Ti-doped NaAlH₄ by X-ray diffraction analysis (XRD) and solid-state NMR spectroscopy. *Journal of Alloys and Compounds*, 350(1-2), 246-255. doi:10.1016/S0925-8388(02)00953-2.

Schüth, F. (2003). Endo- and exotemplating to create high-surface-area inorganic materials. *Angewandte Chemie-International Edition*, 42(31), 3604-3622. doi:10.1002/anie.200300593.

Yang, C.-M., Zibrowius, B., & Schüth, F. (2003). A novel synthetic route for negatively charged ordered mesoporous silica SBA-15. *Chemical Communications (Cambridge, U. K.)*, (14), 1772-1773. doi:10.1039/b304626e.

Weidenthaler, C., Pommerin, A., Felderhoff, M., Bogdanović, B., & Schüth, F. (2003). On the state of the titanium and zirconium in Ti- or Zr-doped NaAlH₄ hydrogen storage material. *Physical Chemistry Chemical Physics*, 5(22), 5149-5153. doi:10.1039/b309409j.

Zech, T., Klein, J., Schunk, S., Johann, T., Schüth, F., Kleditzsch, S., & Deutschmann, O. (2003). Miniaturized Reactor Concepts and Advanced Analytics for Primary Screening in High-Throughput Experimentation. In R. Potyrailo (Ed.), *HIGH-THROUGHPUT ANALYSIS: A TOOL OF COMBINATORIAL MATERIALS SCIENCE* (pp. 491-523). New York: Kluwer Academic/Plenum Publ.

Schüth, F. (2003). Endo- und Exotemplate zur Erzeugung von anorganischen Materialien mit großer spezifischer Oberfläche. *Angewandte Chemie*, 115, 3730-3750. doi:10.1002/ange.200300593.

Benmohammadi, L., Erodabasi, K., Koch, K., Laeri, F., Owschimikow, N., Vietze, U., Ihlein, F., Schüth, F., Weiß, Ö., Ganschow, M., Schulz-Eckloff, G., Wöhrle, D., Wiersig, J., & Nöckel, J. U. (2003). Microscopic Lasers Based on the Molecular Sieve AlPO₄-5. In F. Laeri, F. Schüth, U. Simon, & M. Wark (Eds.), *Host-Guest Systems Based on Nanoporous Crystals* (pp. 584-617). Weinheim: Wiley-VCH.

Schüth, F., Czuryzkiewicz, T., Kleitz, F., Lindén, M., Lu, A.-H., Rosenholm, J., Schmidt, W., & Taguchi, A. (2003). Expanding horizons of mesoporous materials to non-siliceous systems. *Studies in Surface Science and Catalysis*, 146, 399-406.

Kleitz, F., Thomson, S. J., Liu, Z., Terasaki, O., & Schüth, F. (2003). Structure and properties of porous mesostructured zirconium oxophosphate with cubic (Ia(3)over-bar-d) symmetry. *Studies in Surface Science and Catalysis*, 146, 221-225.

Weiß, Ö., Schüth, F., Loerke, J., Marlow, F., Benmohammadi, L., Laeri, F., Seebacher, C., Hellriegel, C., Deeg, F.-W., & Bräuchle, C. (2003). New Microlasers Based on Molecular Sieve/Laser Dye Composite Materials. In F. Laeri, F. Schüth, U. Simon, & M. Wark (Eds.), *Host-Guest Systems Based on Nanoporous Crystals* (pp. 544-557). Weinheim: Wiley-VCH.

Schüth, F. (2003). Structure and dynamics of guest-host composites based on nanoporous crystals. In F. Laeri, F. Schüth, U. Simon, & M. Wark (Eds.), *Host-Guest Systems Based on Nanoporous Crystals* (pp. 239-243). Weinheim: Wiley-VCH.

Busch, O. M., Hoffmann, C., Johann, T. R. F., Schmidt, H.-W., Strehlau, W., & Schüth, F. (2002). Application of a new color detection based method for the fast parallel screening of DeNO_x catalysts. *Journal of the American Chemical Society*, 124(45), 13527-13532. doi:10.1021/ja020629x.

Kleitz, F., Thomson, S. J., Liu, Z., Terasaki, O., & Schüth, F. (2002). Porous mesostructured zirconium oxophosphate with cubic (Ia(3d) symmetry. *Chemistry of Materials*, 14(10), 4134-4144. doi:10.1021/cm021128d.

Schüth, F., Busch, O., Hoffmann, C., Johann, T., Kiener, C., Demuth, D., Klein, J., Schunk, S., Strehlau, W., & Zech, T. (2002). High-throughput experimentation in oxidation catalysis. *Topics in Catalysis*, 21(1-3), 55-66. doi:10.1023/A:1020551931076.

Schwickardi, M., Johann, T., Schmidt, W., & Schüth, F. (2002). High-surface-area oxides obtained by an activated carbon route. *Chemistry of Materials*, 14(9), 3913-3919. doi:10.1021/cm0211857.

Weiß, Ö., Loerke, J., Wüstefeld, U., Marlow, F., & Schüth, F. (2002). Host-guest interactions and laser activity in AlPO₄-5/laser dye composites. *Journal of Solid State Chemistry*, 167(2), 302-309. doi:10.1006/jssc.2002.9648.

Kleitz, F., Blanchard, J., Zibrowius, B., Schüth, F., Ågren, P., & Lindén, M. (2002). Influence of cosurfactants on the properties of mesostructured materials. *Langmuir*, 18(12), 4963-4971. doi:10.1021/la020013l.

Schüth, F., & Schmidt, W. (2002). Microporous and mesoporous materials. *Advanced Materials*, 14(9), 629-638. doi:10.1002/1521-4095(20020503)14:9<629:AID-ADMA629>3.0.CO;2-B.

Schüth, F., & Schmidt, W. (2002). Microporous and mesoporous materials. *Advanced Engineering Materials*, 4(5), 269-279. doi:10.1002/1527-2648(20020503)4:5<269:AID-ADEM269>3.0.CO;2-7.

Wolf, A., & Schüth, F. (2002). A systematic study of the synthesis conditions for the preparation of highly active gold catalysts. *Applied Catalysis A-General*, 226(1-2), 1-13. doi:10.1016/S0926-860X(01)00772-4.

Kestenbaum, H., Lange de Oliveira, A., Schmidt, W., Schüth, F., Ehrfeld, W., Gebauer, K., Löwe, H., Richter, T., Lebiez, D., Untiedt, I., & Züchner, H. (2002). Silver-catalyzed oxidation of ethylene to ethylene oxide in a microreaction system. *Industrial & Engineering Chemistry Research*, 41(4), 710-719. doi:10.1021/ie010306u.

Schüth, F. (2002). Kombinatorische Methoden in der Materialforschung. In D. Forschungsgemeinschaft (Ed.), *Perspektiven der Forschung und ihrer Förderung. Aufgaben und Finanzierung* (pp. 347-362). Weinheim: Wiley-VCH.

Schwickardi, M., Johann, T., Schmidt, W., Busch, O., & Schüth, F. (2002). High surface area metal oxides from matrix assisted preparation in activated carbons. In E. Gaigneaux, D. E. De Vos, P. Grange, P. A. Jacobs, J. A. Martens, P. Ruiz, & G. Poncelet (Eds.), *Impact of Zeolites and other Porous Materials on the New Technologies at the Beginning of the New Millenium, Studies in Surface Science and Catalysis* (Vol. 143, pp. 93-100). Amsterdam: Elsevier.

Schüth, F. (2002). General principles for the synthesis and modification of porous materials. In F. Schüth, K. S. W. Sing, & J. Weitkamp (Eds.), *Handbook of Porous Solids* (pp. 535-666). Weinheim: Wiley-VCH.

Schüth, F. (2002). Hochdurchsatz-Untersuchungen. In R. Dittmeyer (Ed.), *Chemische Technik* (pp. 1-37). Weinheim: Wiley-VCH.

Lu, A. H., Schmidt, W., Taguchi, A., Spliethoff, B., Tesche, B., & Schüth, F. (2002). Taking nanocasting one step further: Replicating CMK-3 as a silica material. *Angewandte Chemie - International Edition*, 41(18), 3489-3492. doi:10.1002/1521-3773(20020916)41:18<3489:AID-ANIE3489>3.0.CO;2-M.

Sauer, J., Marlow, F., Spliethoff, B., & Schüth, F. (2002). Rare earth oxide coating of the walls of SBA-15. *Chemistry of Materials*, 14(1), 217-224. doi:10.1021/cm0111377.

Ågren, P., Thomson, S., Ilhan, Y., Zibrowius, B., Schmidt, W., & Schüth, F. (2002). Chemical linking of MFI-type colloidal zeolite crystals. In R. Aiello, F. Testa, & G. Giordano (Eds.), *Impact of Zeolites and other Porous Materials on the New Technologies at the Beginning of the New Millenium, Studies in Surface Science and Catalysis* (Vol. 143, pp. 159-166). amsterdam: Elsevier.

Sing, K. S. W., & Schüth, F. (2002). Definitions, Terminology, and Classification of Pore Structures. In F. Schüth, K. S. W. Sing, & J. Weitkamp (Eds.), *Handbook of Porous Solids* (pp. 24-33). Weinheim: Wiley-VCH.

Johann, T., Brenner, A., Schwickardi, M., Busch, O., Marlow, F., Schunk, S., & Schüth, F. (2002). Real-time photoacoustic parallel detection of products from catalyst libraries. *Angewandte Chemie - International Edition*, 41(16), 2966-2968. doi:10.1002/1521-3773(20020816)41:16<2966:AID-ANIE2966>3.0.CO;2-J.

Thomson, S. J., Hoffmann, C., Ruthe, S., Schmidt, H. W., & Schüth, F. (2001). The development of a high throughput reactor for the catalytic screening of three phase reactions. *Applied Catalysis A: General*, 220(1-2), 253-264. doi:10.1016/S0926-860X(01)00727-X.

Schüth, F. (2001). Nucleation and crystallization of solids from solution. *Current Opinion in Solid State and Materials Science*, 5(5), 389-395. doi:10.1016/S1359-0286(01)00023-7.

Wüstefeld, H. U., Kaska, W., Schüth, F., Stucky, G., Bu, X., & Krebs, B. (2001). Transition Metal Complexes with the Proton Sponge 4,9-Dichloroquino[7,8-h]quinoline: Highly Twisted Aromatic Systems and an Extreme "Out-of-Plane" Position of the Coordinated Transition Metal Atom. *Angewandte Chemie International Edition*, 40(17), 3182-3184. doi:10.1002/1521-3773(20010903)40:17<3182:AID-ANIE3182>3.0.CO;2-J.

Lange de Oliveira, A., Wolf, A., & Schüth, F. (2001). Highly selective propene epoxidation with hydrogen/oxygen mixtures over titania-supported silver catalysts. *Catalysis Letters*, 73(2-4), 157-160. doi:10.1023/A:1016641708074.

Kleitz, F., Schmidt, W., & Schüth, F. (2001). Evolution of mesoporous materials during the calcination process: structural and chemical behavior. *Microporous and Mesoporous Materials*, 44-45, 95-109. doi:10.1016/S1387-1811(01)00173-1.

Schüth, F., Wingen, A., & Sauer, J. (2001). Oxide loaded ordered mesoporous oxides for catalytic applications. *Microporous and Mesoporous Materials*, 44-45, 465-476. doi:10.1016/S1387-1811(01)00222-0.

Stichert, W., Schüth, F., Kuba, S., & Knözinger, H. (2001). Monoclinic and Tetragonal High Surface Area Sulfated Zirconias in Butane Isomerization: CO Adsorption and Catalytic Results. *Journal of Catalysis*, 198(2), 277-285. doi:10.1006/jcat.2000.3151.

Hoffmann, C., Schmidt, W. N., & Schüth, F. (2001). A Multipurpose Parallelized 49-Channel Reactor for the Screening of Catalysts: Methane Oxidation as the Example Reaction. *Journal of Catalysis*, 198(2), 348-354. doi:10.1006/jcat.2000.3134.

Sauer, J., Marlow, F., & Schüth, F. (2001). Chapter 5 – Nanoporous materials for optical applications. In *Handbook of Advanced Electronic and Photonic Materials and Devices*. Elsevier Inc. doi:10.1016/B978-012513745-4/50054-8.

Weiß, Ö., Schüth, F., Benmohammadi, L., & Laeri, F. (2001). 21-O-04-Potential microlasers based on AlPO₄-5/DCM composites. *Studies in Surface Science and Catalysis*, (135), 161. doi:10.1016/S0167-2991(01)81277-5.

Wingen, A., Schmidt, W., Schüth, F., Wie, A., Liao, C., & Chao, K. (2001). 29-P-25-Iron containing zeolites and mesoporous silica as sulfuric acid catalyst. *Studies in Surface Science and Catalysis*, 135, 317. doi:10.1016/S0167-2991(01)81720-1.

Schüth, F. (2001). Ordered mesoporous materials — State of the art and prospects. *Studies in Surface Science and Catalysis*, 135, 1-12. doi:10.1016/S0167-2991(01)81182-4.

Schüth, F., Bussian, P., Ågren, P., Schunk, S., & Linden, M. (2001). Techniques for analyzing the early stages of crystallization reactions. *Solid State Sciences*, 3(7), 801-808. doi:10.1016/S1293-2558(01)01199-2.

Kleitz, F., Wilczok, U., Schüth, F., & Marlow, F. (2001). Hollow mesoporous silica fibers: tubules by coils of tubules. *Physical Chemistry Chemical Physics*, 3(17), 3486-3489. doi:10.1039/B105083B.

Schmidt, W., Toktarev, A., Schüth, F., Ione, K., & Unger, K. (2001). 02-P-23 - The influence of different silica sources on the crystallization kinetics of zeolite beta. In *Studies in Surface Science and Catalysis* (pp. 190). Amsterdam: Elsevier. doi:10.1016/S0167-2991(01)81362-8.

Schüth, F. (2001). Non-siliceous Mesostructured and Mesoporous Materials. *Chemistry of Materials*, 13(10), 3184-3195. doi:10.1021/cm011030j.

Sauer, J., Marlow, F., & Schüth, F. (2001). Simulation of powder diffraction patterns of modified ordered mesoporous materials. *Physical Chemistry Chemical Physics*, 3(24), 5579-5584. doi:10.1039/B108435F.

Sauer, J., Kaskel, S., Janicke, M., & Schüth, F. (2001). 29-P-17-Zirconia nanoparticles in ordered mesoporous material SBA-15. In *Studies in Surface Science and Catalysis* (pp. 315). Amsterdam: Elsevier. doi:10.1016/S0167-2991(01)81712-2.

Schüth, C., Disser, S., Schüth, F., & Reinhard, M. (2000). Tailoring catalysts for hydrodechlorinating chlorinated hydrocarbon contaminants in groundwater. *Applied Catalysis B*, 28(3-4), 147-152. doi:10.1016/S0926-3373(00)00171-5.

Bussian, P., Sobott, F., Brutschy, B., Schrader, W., & Schüth, F. (2000). Speciation in Solution: Silicate Oligomers in Aqueous Solutions Detected by Mass Spectrometry. *Angewandte Chemie International Edition: a journal of the Gesellschaft Deutscher Chemiker*, 39(21), 3901-3905. doi:10.1002/1521-3773(20001103)39:21<3901:AID-ANIE3901>3.0.CO;2-D.

Blanchard, J., Schüth, F., Trens, P., & Hudson, M. (2000). Synthesis of hexagonally packed porous titanium oxo-phosphate. *Microporous and Mesoporous Materials*, 39(1-2), 163-170. doi:10.1016/S1387-1811(00)00192-X.

Wingen, A., Anastasievich, N., Hollnagel, A., Werner, D., & Schüth, F. (2000). Fe-MCM-41 as a Catalyst for Sulfur Dioxide Oxidation in Highly Concentrated Gases. *Journal of Catalysis*, 193(2), 248-254. doi:10.1006/jcat.2000.2896.

Huwe, A., Kremer, F., Kärger, J., Behrens, P., Schwieger, W., Ihlein, G., Weiß, Ö., & Schüth, F. (2000). Molecular dynamics in zeolitic host systems. *Journal of Molecular Liquids*, 86(1-3), 173-182. doi:10.1016/S0167-7322(99)00138-5.

Huwe, A., Kremer, F., Hartmann, L., Kratzmüller, T., Braun, H., Kärger, J., Behrens, P., Schwieger, W., Ihlein, G., Weiß, Ö., & Schüth, F. (2000). Molecular dynamics in confining geometries. *Journal de Physique IV*, 10(PR7), PR7-59-PR7-65. doi:10.1051/jp4:2000711.

Janicke, M. T., Kestenbaum, H., Hagendorf, U., Schüth, F., Fichtner, M., & Schubert, K. (2000). The Controlled Oxidation of Hydrogen from an Explosive Mixture of Gases Using a Microstructured Reactor/Heat Exchanger and Pt/Al₂O₃ Catalyst. *Journal of Catalysis*, 191(2), 282-293. doi:10.1006/jcat.2000.2819.

Weiß, Ö., Ihlein, G., & Schüth, F. (2000). Synthesis of millimeter-sized perfect AlPO₄₋₅ crystals. *Microporous and Mesoporous Materials*, 35-36, 617-620. doi:10.1016/S1387-1811(99)00255-3.

Braun, I., Ihlein, G., Laeri, F., Nöckel, J. U., Schulz-Eckloff, G., Schüth, F., Vietze, U., Weiß, Ö., & Wöhrle, D. (2000). Hexagonal microlasers based on organic dyes in nanoporous crystals. *Applied Physics B: Lasers and Optics*, 70(3), 335-343. doi:10.1007/s003400050054.

Schüth, F. (2000). Mesoporous solids. In *Catalysis from A to Z: a concise encyclopedia* (pp. 362-363). Wiley-VCH.

Ågren, P., Linden, M., Rosenholm, J. B., Blanchard, J., Schüth, F., & Amenitsch, H. (2000). Kinetics of Cosurfactant-Surfactant-Silicate Phase Behavior. 2. Short-Chain Amines. *Langmuir*, 16(23), 8809-8813. doi:10.1021/la000402k.

Schüth, F. (2000). Support. In *Catalysis from A to Z: a concise encyclopedia* (pp. 558-559). Wiley-VCH.

Schüth, F. (2000). *Combinatorial catalysis*.

Kestenbaum, H., Lange de Oliveira, A., Schmidt, W., Schüth, F., Ehrfeld, W., Gebauer, K., Löwe, H., & Richter, T. (2000). Synthesis of ethylene oxide in a microreaction system. Applied Mineralogy in Research, Economy, Technology, Ecology and Culture. In D. Rammlmair, J. Mederer, T.

Oberthür, R. Heimann, & H. Pentinghaus (Eds.), *Microreaction Technology: Industrial Prospects* (pp. 207-212). Springer-Verlag Berlin Heidelberg.

Kestenbaum, H., Lange de Oliveira, A., Schmidt, W., Schüth, F., Ehrfeld, W., Gebauer, K., & Löwe, H. (2000). Synthesis of ethylene oxide in a catalytic microreactor system. *Studies in Surface Science and Catalysis*, 130, 2741-2746. doi:10.1016/S0167-2991(00)80885-X.

Janicke, M., Holzwarth, A., Fichtner, M., Schubert, K., & Schüth, F. (2000). A microstructured catalytic reactor/heat exchanger for the controlled catalytic reaction between H₂ and O₂. *Studies in Surface Science and Catalysis*, 130, 437-442. doi:10.1016/S0167-2991(00)80996-9.

Wingen, A., Anastasievic, D., Hollnagel, A., & Schüth, F. (2000). Fe-MCM-41 as a novel sulfuric acid catalyst for SO₂ rich feeds. In *Studies in Surface Science and Catalysis* (pp. 3065-3070). Amsterdam: Elsevier. doi:10.1016/S0167-2991(00)80939-8.

Richter, T., Ehrfeld, W., Erntner, D., Gebauer, K., Golbig, K., Hausner, O., Löwe, H., Lange de Oliveira, A., Schmidt, W., & Schüth, F. (2000). Microstructured Reactor for Consecutive Heterogeneous/Homogeneous Gas Phase Reactions. In *Microreaction Technology: Industrial Prospects* (pp. 687-693). Springer-Verlag Berlin Heidelberg.

Hoffmann, C., Wolf, A., & Schüth, F. (1999). Parallel Synthesis and Testing of Catalysts under Nearly Conventional Testing Conditions. *Angewandte Chemie International Edition: a journal of the Gesellschaft Deutscher Chemiker*, 38(18), 2800-2803. doi:10.1002/(SICI)1521-3773(19990917)38:18<2800:AID-ANIE2800>3.0.CO;2-9.

Ciesla, U., & Schüth, F. (1999). Ordered mesoporous materials. *Microporous and Mesoporous Materials*, 27(2-3), 131-149. doi:10.1016/S1387-1811(98)00249-2.

Thieme, M., & Schüth, F. (1999). Preparation of a mesoporous high surface area titanium oxo phosphate via a non-ionic surfactant route. *Microporous and Mesoporous Materials*, 27(2-3), 193-200. doi:10.1016/S1387-1811(98)00253-4.

Schüth, F., Ciesla, U., Schacht, S., Thieme, M., Huo, Q., & Stucky, G. (1999). Ordered mesoporous silicas and zirconias: control on length scales between nanometer and micrometer. *Materials Research Bulletin*, 34(3), 483-494. doi:10.1016/S0025-5408(99)00032-X.

Newsam, J., & Schüth, F. (1999). Combinatorial approaches as a component of high-throughput experimentation (HTE) in catalysis research. *Biotechnology and Bioengineering*, 61(4), 203-216. doi:10.1002/(SICI)1097-0290(1998)61:4<203:AID-CC3>3.0.CO;2-V.

Ågren, P., Linden, M., Rosenholm, J., Schwarzenbacher, R., Kriechbaum, M., Amenitsch, H., Laggner, P., Blanchard, J., & Schüth, F. (1999). Kinetics of Cosurfactant–Surfactant–Silicate Phase Behavior. 1. Short-Chain Alcohols. *The Journal of Physical Chemistry B*, 103(29), 5943-5948. doi:10.1021/jp984684x.

- Ihle, G., Schüth, F., Krauß, O., Vietze, U., Laeri, F., Limburg, B., & Abraham, M. (1999). Laser action from a zeolite based host/guest composite. In *Proceedings of the 12th International Zeolite Conference 4 Volume Set (MRS Conference Proceedings)* (pp. 2241-2248). Materials Research Society.
- Ciesla, U., Fröba, M., Stucky, G., & Schüth, F. (1999). Highly Ordered Porous Zirconias from Surfactant-Controlled Syntheses: Zirconium Oxide–Sulfate and Zirconium Oxo Phosphate. *Chemistry of Materials*, *11*(2), 227-234. doi:10.1021/cm980205v.
- Schüth, F., Hoffmann, C., Wolf, A., Schunk, S., Stichert, W., & Brenner, A. (1999). High-throughput experimentation in catalysis. In *Combinatorial Methods in Organic Chemistry: synthesis, analysis, screening*. (pp. 463-477). Wiley-VCH.
- Linden, M., Blanchard, J., Schacht, S., Schunk, S., & Schüth, F. (1999). Phase Behavior and Wall Formation in Zr(SO₄)₂/CTABr and TiOSO₄/CTABr Mesophases. *Chemistry of Materials*, *11*(10), 3002-3008. doi:10.1021/cm991082x.
- Borgmann, C., Sauer, J., Jüstel, T., Kynast, U., & Schüth, F. (1999). Efficiently Emitting Rare-Earth Sodalites by Phase Transformation of Zeolite X and by Direct Synthesis. *Advanced Materials*, *11*(1), 45-49. doi:10.1002/(SICI)1521-4095(199901)11:1<45:AID-ADMA45>3.0.CO;2-A.
- Borgmann, C., Sauer, J., Kynast, U., Jüstel, T., & Schüth, F. (1999). The development of new luminescent materials from zeolite X. In *Proceedings of the 12th International Zeolite Conference 4 Volume Set (MRS Conference Proceedings)* (pp. 2241-2248). Materials Research Society.
- Vietze, U., Krauß, O., Laeri, F., Ihle, G., Schüth, F., Limburg, B., & Abraham, M. (1998). Zeolite-Dye Microlasers. *Physical Review Letters*, *81*, 4628-4631. doi:http://dx.doi.org/10.1103/PhysRevLett.81.4628.
- Sobott, F., Schunk, S. A., Schüth, F., & Brutschy, B. (1998). Examination of Condensation Products of Group 4 Alkoxides with Laser-Induced Liquid Beam Ionization/Desorption Mass Spectrometry. *Chemistry - A European Journal*, *4*(11), 2353-2359. doi:10.1002/(SICI)1521-3765(19981102)4:11<2353:AID-CHEM2353>3.0.CO;2-I.
- Neimark, A. V., Ravikovitch, P. I., Grün, M., Schüth, F., & Unger, K. K. (1998). Pore Size Analysis of MCM-41 Type Adsorbents by Means of Nitrogen and Argon Adsorption. *Journal of Colloid and Interface Science*, *207*(1), 159-169. doi:10.1006/jcis.1998.5748.
- Ihle, G., Schüth, F., Krauß, O., Vietze, U., & Laeri, F. (1998). Alignment of a Laser Dye in the Channels of the AlPO₄-5 Molecular Sieve. *Advanced Materials*, *10*(14), 1117-1119. doi:10.1002/(SICI)1521-4095(199810)10:14<1117:AID-ADMA1117>3.0.CO;2-W.

Linden, M., Schacht, S., Schüth, F., Steel, A., & Unger, K. K. (1998). Recent Advances in Nano- and Macroscale Control of Hexagonal, Mesoporous Materials. *Journal of Porous Materials*, 5(3-4), 177-193. doi:10.1023/A:1009666019428.

Schacht, S., Janicke, M., & Schüth, F. (1998). Modeling X-ray patterns and TEM images of MCM-41. *Microporous and Mesoporous Materials*, 22(1-3), 485-493. doi:10.1016/S1387-1811(98)00086-9.

Ihle, G., Junges, B., Junges, U., Laeri, F., Schüth, F., & Vietze, U. (1998). Ordered porous materials as media for the organization of matter on the nanoscale. *Applied Organometallic Chemistry*, 12(5), 305-314. doi:10.1002/(SICI)1099-0739(199805)12:5<305:AID-AOC745>3.0.CO;2-#.

Linden, M., Schunk, S. A., & Schüth, F. (1998). In Situ X-Ray Diffraction Study of the Initial Stages of Formation of MCM-41 in a Tubular Reactor. *Angewandte Chemie International Edition*, 37(6), 821-823. doi:10.1002/(SICI)1521-3773(19980403)37:6<821:AID-ANIE821>3.0.CO;2-I.

Schüth, F. (1998). Superstructures of mesoporous silicas. *Current Opinion in Colloid & Interface Science*, 3(2), 174-180. doi:10.1016/S1359-0294(98)80011-3.

Stichert, W., & Schüth, F. (1998). Synthesis of Catalytically Active High Surface Area Monoclinic Sulfated Zirconia. *Journal of Catalysis*, 174(2), 242-245. doi:10.1006/jcat.1998.1962.

Hagendorf, U., Janicke, M., Schüth, F., Schubert, K., & Fichtner, M. (1998). A Pt/Al₂O₃ coated microstructured reactor/heat exchanger for the controlled H₂/O₂-reaction in the explosion regime. In *2nd International Conference on Microreaction Technology; topical conference preprints*. New York: Institute of Chemical Engineers.

Schüth, F., & Schunk, S. (1998). Synthesis of zeolite-like inorganic compounds. In *Handbook of Molecular Sieves* (pp. 229-263).

Junges, U., Disser, S., Schmid, G., & Schüth, F. (1998). Ordered mesoporous materials as catalyst supports. In *Studies in Surface Science and Catalysis* (pp. 391-398). Amsterdam: Elsevier. doi:10.1016/S0167-2991(98)81016-1.

Linden, M., Schunk, S., & Schüth, F. (1998). In-situ XRD Study of the Initial Stages of Formation of MCM-41 in a Tubular reactor. In *Studies in Surface Science and Catalysis* (pp. 45-52). Amsterdam: Elsevier. doi:10.1016/S0167-2991(98)80976-2.

Huwe, A., Kremer, F., Arndt, M., Behrens, P., Schwieger, W., Ihle, G., Akdogan, Ö., & Schüth, F. (1998). Glass Transition in Sub-nanometer Confinement. *Materials Research Society Symposia Proceedings*, 543, 115-123. doi:10.1557/PROC-543-115.

Stichert, W., & Schüth, F. (1998). Influence of Crystallite Size on the Properties of Zirconia. *Chemistry of Materials*, 10(7), 2020-2026. doi:10.1021/cm980705o.

Junges, U., Schüth, F., Schmid, G., Uchida, R., & Schlögl, R. (1997). Synthesis and characterization of catalysts based on ligand-stabilized clusters incorporated in mesoporous oxides. *Berichte der Bunsen-Gesellschaft für Physikalische Chemie*, 101(11), 1631-1634. doi:10.1002/bbpc.19971011113.

Schmidt, W., & Schüth, F. (1997). Sorptive properties of cloverite. In *Characterisation of Porous Solids IV* (pp. 351-358). Cambridge: Royal Society of Chemistry.

Melson, S., & Schüth, F. (1997). The Influence of the External Acidity of H-ZSM-5 on Its Shape Selective Properties in the Disproportionation of Ethylbenzene. *Journal of Catalysis*, 170(1), 46-53. doi:10.1006/jcat.1997.1715.

Jabcofs, W., Demuth, D., Schunk, S., & Schüth, F. (1997). Orientation of the acidity probes benzene, acetonitrile and pyridine in SAPO-5 and GaAPO-5 molecular sieves: an FTIR microscopy study. *Microporous and Mesoporous Materials*, 10(1-3), 95-109. doi:10.1016/S0927-6513(96)00126-5.

Simon, U., Schüth, F., Schunk, S., Wang, X., & Liebau, F. (1997). $K_3Sb_7^{III}O_9Se_3 \cdot 3H_2O$: The First Crystalline Nanoporous Material with a Photo-Semiconducting Host Structure. *Angewandte Chemie International Edition*, 36(10), 1121-1124. doi:10.1002/anie.199711211.

Deforth, U., Unger, K., & Schüth, F. (1997). Dry synthesis of B-MFI, MTN- and MTW-type materials. *Microporous and Mesoporous Materials*, 9(5-6), 287-290. doi:10.1016/S0927-6513(96)00118-6.

Setzer, C., Demuth, D., & Schüth, F. (1997). Comparative Study of the NO-Decomposition over Cu-loaded ZSM-5 Zeolites Prepared via Different Routes. *Chemie-Ingenieur-Technik*, 69(1-2), 79-82. doi:10.1002/cite.330690110.

Huo, Q., Zhao, D., Feng, J., Weston, K., Buratto, S., Stucky, G., Schacht, S., & Schüth, F. (1997). Room temperature growth of mesoporous silica fibers: A new high-surface-area optical waveguide. *Advanced Materials*, 9(12), 974-978. doi:10.1002/adma.19970091210.

Stucky, G. D., Huo, Q., Firouzi, A., Chmelka, B. F., Schacht, S., & Schüth, F. (1997). Directed synthesis of organic/inorganic composite structures. *Studies in Surface Science and Catalysis*, 105, 3-28. doi:10.1016/S0167-2991(97)80534-4.

Schmidt, W., Schüth, F., & Kallus, S. (1997). The thermal stability of the gallophosphate cloverite. *Studies in Surface Science and Catalysis*, 105, 771-778. doi:10.1016/S0167-2991(97)80628-3.

Schüth, F. (1997). Influence of the crystal phase on the catalytic properties of sulfated zirconia. In *Proceedings of the DGMK-Conference "C4 Chemistry - Manufacture and Use of C4 Hydrocarbons"* (pp. 273). Deutsche Wissenschaftliche Gesellschaft für Erdöl, Erdgas und Kohle.

Althoff, R., Sellergren, B., Zibrowius, B., Unger, K., & Schüth, F. (1997). The deposition of zeolites from the gas phase. In *Synthesis of porous materials: zeolites, clays, and nanostructures; [based on the American Chemical Society's Symposium on the Synthesis of Zeolites, Expanded Layered Compounds, and Other Microporous Solids]* (pp. 139-157). New York: Marcel Dekker.

Schüth, F., & Unger, K. (1997). Preparation of catalysts by precipitation and coprecipitation and by precipitation from organic solvents. In *Handbook of heterogeneous catalysis* (pp. 72-86). Weinheim: Wiley-VCH.

Huo, Q., Feng, J., Schüth, F., & Stucky, G. (1997). Preparation of Hard Mesoporous Silica Spheres. *Chemistry of Materials*, 9(1), 14-17. doi:10.1021/cm960464p.

Schacht, S., Huo, Q., Voigt-Martin, I., Stucky, G., & Schüth, F. (1996). Oil-Water Interface Templating of Mesoporous Macroscale Structures. *Science*, 273(5276), 768-771. doi:0.1126/science.273.5276.768.

Grün, M., Kurgasnov, A. A., Schacht, S., Schüth, F., & Unger, K. K. (1996). Comparison of an ordered mesoporous aluminosilicate, silica, alumina, titania and zirconia in normal-phase high-performance liquid chromatography. *Journal of Chromatography A*, 740(1), 1-9. doi:10.1016/0021-9673(96)00205-1.

Schunk, S., Demuth, D., Schulz-Dobrick, B., Unger, K., & Schüth, F. (1996). Element distribution and growth mechanism of large SAPO-5 crystals. *Microporous and Mesoporous Materials*, 6(5-6), 273-285. doi:10.1016/0927-6513(96)00011-9.

Ciesla, U., Schacht, S., Stucky, G., Unger, K., & Schüth, F. (1996). Formation of a Porous Zirconium Oxo Phosphate with a High Surface Area by a Surfactant-Assisted Synthesis. *Angewandte Chemie International Edition*, 35(5), 541-543. doi:10.1002/anie.199605411.

Belcher, A., Zaremba, C., Huo, Q., Landry, C., Tolberet, s., Firouzi, A., Janicke, M., Hansma, P., Morse, D., Chmelka, B., Schacht, S., Voig-Martin, I., Schüth, F., & Stucky, G. (1996). The organic/inorganic interface and materials synthesis in the nano- to macroscale continuum. In *Proceedings of the Robert A. Welch Foundation: 40th Conference on Chemical Research. Chemistry on the Nanometer Scale.* (pp. 101-112). Houston TX: Welch Foundation.

Schüth, F. (1996). Crystallographically defined pore systems. In *Microsystem technology for chemical and biological microreactors: papers of the Workshop on Microsystem Technology* (pp. 71-92). DECHEMA: Deutsche Gesellschaft für Chemisches Apparatewesen, Chemische Technik und Biotechnologie.

- Behrens, P., van de Goor, G., Marlow, F., Hoffmann, K., Kallus, S., & Schüth, F. (1996). Chromophore-zeotype composites: Direct synthesis of an array of strictly aligned metal-organic complex chromophores in a crystalline silica matrix. *Advanced Materials*, 8(1), 65-69. doi: 10.1002/adma.19960080113.
- Ciesla, U., Unger, K., & Schüth, F. (1996). Characterization of zirconia based ordered mesoporous materials. In *Characterisation of porous solids IV: proceedings of the Fourth IUPAC Symposium on the Characterisation of Porous Solids* (pp. 90-98). Royal Society of Chemistry.
- Neimark, A., Ravikovitch, P., O'Domhnaill, S., Schüth, F., & Unger, K. (1996). Theoretical and experimental studies of capillary hysteresis in MCM-41. In *Fundamentals of adsorption: Proceedings of the Fifth International Conference on Fundamentals of Adsorption* (pp. 667). Kluwer Academic.
- Ravikovitch, P., Domhnaill, S., Neimark, A., Schüth, F., & Unger, K. (1995). Capillary Hysteresis in Nanopores: Theoretical and Experimental Studies of Nitrogen Adsorption on MCM-41. *Langmuir*, 11(12), 4765-4772. doi:10.1021/la00012a030.
- Schüth, F. (1995). Surface Properties and Catalytic Performance of Novel Mesostructured Oxides. *Berichte der Bunsen-Gesellschaft für Physikalische Chemie*, 99(11), 1306-1315. doi:10.1002/bbpc.199500076.
- Schüth, F. (1995). Nanoporöse Kristalle als vielseitige Wirtsmatrices. *Chemie in unserer Zeit*, 29(1), 42-52. doi:10.1002/ciuz.19950290111.
- Llewellyn, P., Schüth, F., Grillet, Y., Rouquerol, F., Rouquerol, J., & Unger, K. (1995). Water Sorption on Mesoporous Aluminosilicate MCM-41. *Langmuir*, 11(2), 574-577. doi:10.1021/la00002a036.
- Demuth, D., Stucky, G., Unger, K., & Schüth, F. (1995). Synthesis of large optically clear silicoaluminophosphate crystals with AFI structure. *Microporous and Mesoporous Materials*, 3(4-5), 473-487. doi:10.1016/0927-6513(94)00060-9.
- Marlow, F., Demuth, D., Stucky, G., & Schüth, F. (1995). Polarized IR Spectra of p-Nitroaniline-Loaded AlPO₄-5 Single Crystals. *The Journal of Physical Chemistry*, 99(4), 1306-1310. doi:10.1021/j100004a034.
- Demuth, D., Unger, K., Schüth, F., Srdanov, V., & Stucky, G. (1995). Improvement of Raman Spectra of SAPO-5 by Chromium(III)-Induced Luminescence Quenching. *The Journal of Physical Chemistry*, 99(2), 479-482. doi:10.1021/j100002a002.
- Schüth, F., Walla, M., Polanek, P., Tissler, A., & Unger, K. (1995). Template-free synthesis of MFI type zeolites. In *Chemistry, ecology, health: Zeolite catalysis for the solution of environmental*

problems; proceedings of the international meeting, Jan. 6 - 12, 1992 (pp. 437-448). New York: Nova Science Publ.

Junges, U., Jacobs, W., Voigt-Martin, I., Krutzsch, B., & Schüth, F. (1995). MCM-41 as a support for small platinum particles: a catalyst for low-temperature carbon monoxide oxidation. *Journal of the Chemical Society, Chemical Communications*, (22), 2283-2284. doi:10.1039/C39950002283.

Ciesla, U., Demuth, D., Leon, R., Petroff, P., Stucky, G., Unger, K., & Schüth, F. (1995). Surfactant based synthesis of oxidic catalysts and catalyst supports. In *Studies in Surface Science and Catalysis* (pp. 337-344). Amsterdam: Elsevier. doi:10.1016/S0167-2991(06)81770-2.

Althoff, R., Reitmaier, S., Schmidt, W., Zibrowius, B., Unger, K., & Schüth, F. (1995). The synthesis of zeolites from dry powders. *Studies in Surface Science and Catalysis*, 98, 36-37. doi:10.1016/S0167-2991(06)81074-8.

Ciesla, U., Grün, M., Isajeva, T., Kurganov, A., Neimark, A., Ravikovitch, P., Schacht, S., Schüth, F., & Unger, K. (1995). Critical Appraisal of the Pore Structure of MCM-41. In *Access in Nanoporous Materials* (pp. 231-240). New York: Plenum Press.

Demuth, D., Unger, K., Schüth, F., Stucky, G., & Srdanoy, V. (1994). Photoluminescence of chromium(III)-doped silicoaluminophosphate with AFI structure. *Advanced Materials*, 6(12), 931-934. doi:10.1002/adma.19940061205.

Llewellyn, P., Grillet, Y., Schüth, F., Reichert, H., & Unger, K. (1994). Effect of pore size on adsorbate condensation and hysteresis within a potential model adsorbent: M41S. *Microporous and Mesoporous Materials*, 3(3), 345-349. doi:10.1016/0927-6513(94)00042-5.

Huo, Q., Margolese, D., Ciesla, U., Demuth, D., Feng, P., Gier, T., Sieger, P., Firouzi, A., Chmelka, B., Schüth, F., & Stucky, G. (1994). Organization of Organic Molecules with Inorganic Molecular Species into Nanocomposite Biphase Arrays. *Chemistry of Materials*, 6(8), 1176-1191. doi:10.1021/cm00044a016.

Althoff, R., Unger, K., & Schüth, F. (1994). Is the formation of a zeolite from a dry powder via a gas phase transport process possible? *Microporous and Mesoporous Materials*, 2(6), 563-564. doi:10.1016/0927-6513(94)E0027-R.

Huo, Q., Margolese, D., Ciesla, U., Feng, P., Gier, T., Sieger, P., Leon, R., Petroff, P., Schüth, F., & Stucky, G. (1994). Generalized synthesis of periodic surfactant/inorganic composite materials. *Nature*, 368, 317-321. doi:10.1038/368317a0.

Schüth, F., Demuth, D., Zibrowius, B., Kornatowski, J., & Finger, G. (1994). FTIR microscopy with polarized IR radiation for the analysis of SAPO-5 and p-xylene-loaded SAPO-5. *Journal of the American Chemical Society*, 116(3), 1090-1095. doi:10.1021/ja00082a035.

Kikhtyanin, O., Ione, K., Snytnikova, G., Malysheva, L., Toktarev, A., Paukshtis, E., Spichtinger, R., Schüth, F., & Unger, K. (1994). Anthraquinones formation on zeolites with BEA structure. In *Studies in Surface Science and Catalysis* (pp. 1905-1912). Amsterdam: Elsevier. doi:10.1016/S0167-2991(08)63748-9.

Alfredsson, V., Keung, M., Monnier, A., Stucky, G., Unger, K., & Schüth, F. (1994). High-resolution transmission electron microscopy of mesoporous MCM-41 type materials. *Journal of the Chemical Society, Chemical Communications*, (8), 921-922. doi:10.1039/C39940000921.

Ciesla, U., Demuth, D., Leon, R., Petroff, P., Stucky, G., Unger, K., & Schüth, F. (1994). Surfactant controlled preparation of mesostructured transition-metal oxide compounds. *Journal of the Chemical Society, Chemical Communications*, (11), 1387-1388. doi:10.1039/C39940001387.

Engel, S., Kynast, U., Unger, K., & Schüth, F. (1994). Factors affecting the UV-Transparency of Molecular Sieves. In *Studies in Surface Science and Catalysis* (pp. 477-483). Amsterdam: Elsevier. doi:10.1016/S0167-2991(08)64148-8.

Grebner, M., Reichert, H., Schüth, F., & Unger, K. (1994). Synthesis And Sorptive Properties Of Dodecasil 1 H With An Accessible Pore System. In *Studies in Surface Science and Catalysis* (pp. 545-550). Amsterdam: Elsevier. doi:10.1016/S0167-2991(08)63116-X.

Llewellyn, P., Ciesla, U., Decher, H., Stadler, R., Schüth, F., & Unger, K. (1994). MCM-41 and related materials as media for controlled polymerization processes. In *Studies in Surface Science and Catalysis* (pp. 2013-2020). Amsterdam: Elsevier. doi:10.1016/S0167-2991(08)63762-3.

Schüth, F., Demuth, D., & Kallus, S. (1994). FTIR Microscopy with Polarized Radiation for the Analysis of Adsorption Processes in Molecular Sieves. In *Studies in Surface Science and Catalysis* (pp. 1223-1229). Amsterdam: Elsevier. doi:10.1016/S0167-2991(08)63661-7.

Stucky, G., Monnier, A., Schüth, F., Huo, Q., Margolese, D., Kumar, D., Krishnamurty, M., Petroff, P., Firouzi, A., Janicke, M., & Chmelka, B. (1994). Molecular and Atomic Arrays in Nano- and Mesoporous Materials Synthesis. *Molecular Crystals and Liquid Crystals Science and Technology Section A-Molecular Crystals and Liquid Crystals*, 240(1), 187-200. doi:10.1080/10587259408029730.

Branton, P., Hall, P., Sing, K., Reichert, H., Schüth, F., & Unger, K. (1994). Physisorption of argon, nitrogen and oxygen by MCM-41, a model mesoporous adsorbent. *Journal of the Chemical Society-Faraday Transactions*, 90(19), 2965-2967. doi:10.1039/FT9949002965.

Zibrowius, B., Anderson, M., Schmidt, W., Schüth, F., Aliev, A., & Harris, K. (1993). Aspects of the characterization of cloverite by solid-state n.m.r. techniques. *Zeolites*, 13(8), 607-610. doi:10.1016/0144-2449(93)90131-L.

Schüth, F., & Althoff, R. (1993). Analysis of Active-Site Distribution in ZSM-5 Crystals by Infrared Microscopy. *Journal of Catalysis*, *143*(2), 388-394. doi:10.1006/jcat.1993.1284.

Monnier, A., Schüth, F., Huo, Q., Kumar, D., Margolese, D., Maxwell, R., Stucky, G., Krishnamurty, M., Petroff, P., Firouzi, A., Janicke, M., & Chmelka, B. (1993). Cooperative Formation of Inorganic-Organic Interfaces in the Synthesis of Silicate Mesostructures. *Science Magazine*, *261*, 1299-1303. doi:10.1126/science.261.5126.1299.

Althoff, R., Schulz-Dobrick, B., Schüth, F., & Unger, K. (1993). Controlling the spatial distribution of aluminum in ZSM-5 crystals. *Microporous and Mesoporous Materials*, *1*(3), 207-218. doi:10.1016/0927-6513(93)80079-A.

Gügel, A., Müllen, K., Reichert, H., Schmidt, W., Schön, G., Schüth, F., Spiekermann, J., Titman, J., & Unger, K. (1993). The Incorporation of C₆₀ in Molecular Sieves. *Angewandte Chemie International Edition*, *32*(4), 556-557. doi:10.1002/anie.199305561.

Grebner, M., Reich, A., Schüth, F., Unger, K., & Franz, K. (1993). Influence of synthesis conditions on the morphology of Dodecasil 1H. *Zeolites*, *13*(2), 139-144. doi:10.1016/0144-2449(93)90073-C.

Setzer, C., Schütz, W., & Schüth, F. (1993). Transition Metal Compound Oxide Catalysts for Lowering the Light Off-Temperature of Particles from Diesel Exhaust. In *Studies in Surface Science and Catalysis* (pp. 2629-2632). Amsterdam: Elsevier. doi:10.1016/S0167-2991(08)64366-9.

Wallau, M., Schüth, F., Brenner, A., Melson, S., Spichtinger, R., Unger, K., Tissler, A., & Zibrowius, B. (1993). Template-free and alkali-free synthesized silicates with MFI structure. In *Proceedings from the Ninth International Zeolite Conference: Montreal* (pp. 643-650). Boston: Butterworth-Heinemann.

Schüth, F. (1992). Polarized Fourier transform infrared microscopy as a tool for structural analysis of adsorbates in molecular sieves. *The Journal of Physical Chemistry*, *96*(19), 7493-7496. doi:10.1021/j100198a003.

Vlachos, D., Schüth, F., Aris, R., & Schmidt, L. (1992). Spatial and temporal patterns in catalytic oscillations. *Physica A: Statistical Mechanics and its Applications*, *188*(1-3), 302-321. doi:10.1016/0378-4371(92)90275-U.

Schmidt, W., Schüth, F., Reichert, H., Unger, K., & Zibrowius, B. (1992). VPI-5 and related aluminophosphates: Preparation and thermal stability. *Zeolites*, *12*(1), 2-8. doi:10.1016/0144-2449(92)90001-6.

Dreisbach, M., Kanz-Reuschel, B., Brenner, A., Schüth, F., & Unger, K. (1991). Adsorptive Trennung von m- und p-Chlortoluol an Zeolithen und Alumophosphaten. *Chemie-Ingenieur-Technik*, *63*(7), 730-733. doi:10.1002/cite.330630713.

Spichtinger, R., Kanz-Reuschel, B., Wallau, M., Schüth, F., Schmidt, W., & Unger, K. (1991). Zeolithe, maßgeschneiderte synthetische Molekularsiebe für neue Anwendungen in Chemie. *Universität Mainz: Forschungsmagazin*, 2, 42-46.

Schüth, F., & Spichtinger, R. (1991). Zeolite beta and isomorphously substituted Ga-beta as a catalyst for propane aromatization-infrared spectroscopic investigations. *American Chemical Society / Division of Petroleum Chemistry: Petroleum preprints*, 39(1), 677-684.

Schüth, F., Song, X., Schmidt, L., & Wicke, E. (1990). Synchrony and the emergence of chaos in oscillations on supported catalysts. *The Journal of Chemical Physics*, 92, 745-756. doi:10.1063/1.458428.

Cordonier, G., Schüth, F., & Schmidt, L. (1990). Decomposition of CH₃NH₂ on Pt and Rh: rate oscillations and surface intermediates. *Vacuum*, 41(1-3), 278-281. doi:10.1016/0042-207X(90)90334-U.

Schüth, F., & Wicke, E. (1989). IR Spectroscopic Investigations During Oscillations of the CO/NO and the CO/O₂ Reaction on Pt and Pd Catalysts II: Palladium. *Berichte der Bunsen-Gesellschaft für Physikalische Chemie*, 93(4), 491-501. doi:10.1002/bbpc.19890930413.

Schüth, F., & Wicke, E. (1989). IR spectroscopic investigations during oscillations of the CO/NO and the CO/O₂ reaction on Pt and Pd catalysts I: Platinum. *Berichte der Bunsen-Gesellschaft für Physikalische Chemie*, 93(2), 191-201. doi:10.1002/bbpc.19890930217.

Cordonier, G., Schüth, F., & Schmidt, L. (1989). Oscillations in methylamine decomposition on Pt, Rh, and Ir: Experiments and models. *The Journal of Chemical Physics*, 91, 5374-5386. doi:10.1063/1.457586.

Schüth, F., & Wicke, E. (1989). Oscillation mechanisms of the CO/NO and the CO/O₂ reaction on supported Pt and Pd catalysts. In *Stationary processes and dynamic experimental methods in catalysis, electrochemistry and corrosion: papers of the 27th Tutzing Symposium* (pp. 429-441). Frankfurt: Deutsche Gesellschaft für Chemisches Apparatewesen, Chemische Technik und Biotechnologie, Wiley-VCH.

Ciesly, U., Stucky, G., & Schüth, F. (1989). Improvement of the Thermal Stability of Mesostructured Metal Oxides with Zirconia as the Example. In *Studies in Surface Science and Catalysis* (pp. 527-534). Amsterdam: Elsevier. doi:10.1016/S0167-2991(98)81034-3.

Schüth, F., & Wicke, E. (1988). The Formation of Isocyanates on Noble Metals and Supported Noble Metal Catalysts. *Berichte der Bunsen-Gesellschaft für Physikalische Chemie*, 92(7), 813-819. doi:10.1002/bbpc.198800198.

Schüth, F., & Wicke, E. (1985). The Reduction of NO by CO in Presence of Oxygen on Pd and Pd/Rh Supported Catalysts. *Zeitschrift für physikalische Chemie*, 144(144).
doi:10.1524/zpch.1985.144.144.239.