

Publikationen zu infraSORP:

- [1] Wollmann, P.; Leistner, M.; Stoeck, U.; Grünker, R.; Gedrich, K.; Klein, N.; Throl, O.; Grählert, W.; Senkovska, I.; Dreisbach, F.; et al. High-Throughput Screening: Speeding up Porous Materials Discovery. *Chem. Commun.* **2011**, *47*, 5151–5153.
DOI: [10.1039 / C1CC10674K](https://doi.org/10.1039/C1CC10674K)
- [2] Wollmann, P.; Leistner, M.; Grählert, W.; Throl, O.; Dreisbach, F.; Kaskel, S. Infrisorb: Optical Detection of the Heat of Adsorption for High Throughput Adsorption Screening of Porous Solids. *Microporous Mesoporous Mater.* **2012**, *149*, 86–94.
DOI: [10.1016/j.micromeso.2011.08.028](https://doi.org/10.1016/j.micromeso.2011.08.028)
- [3] Leistner, M.; Grählert, W.; Kaskel, S. Screening of Porous Materials by Thermal Response Measurements. *Chem. Ing. Tech.* **2013**, *85*, 747–752. DOI: [10.1002/cite.201200119](https://doi.org/10.1002/cite.201200119)
- [4] Nickel, W.; Oschatz, M.; von der Lehr, M.; Leistner, M.; Hao, G.-P.; Adelheim, P.; Müller, P.; Smarsly, B. M.; Kaskel, S. Direct synthesis of carbide-derived carbon monoliths with hierarchical pore design by hard-templating. *J. Mater. Chem. A* **2014**, *2*, 12703–12707.
DOI: [10.1039 / C4TA02260B](https://doi.org/10.1039/C4TA02260B)
- [5] Oschatz, M.; Nickel, W.; Thommes, M.; Cychosz, K. A.; Leistner, M.; Adam, M.; Mondin, G.; Strubel, P.; Borchardt, L.; Kaskel, S. Evolution of porosity in carbide-derived carbon aerogels. *J. Mater. Chem. A* **2014**, *2*, 18472–18479. DOI: [10.1039 / C4TA03401E](https://doi.org/10.1039/C4TA03401E)
- [6] Oschatz, M.; Leistner, M.; Nickel, W.; Kaskel, S. Advanced Structural Analysis of Nanoporous Materials by Thermal Response Measurements. *Langmuir* **2015**, *31*, 4040–4047. DOI: [10.1021/acs.langmuir.5b00490](https://doi.org/10.1021/acs.langmuir.5b00490)
- [7] Sandra, F.; Klein, N.; Leistner, M.; Lohe, M.R.; Benusch, M.; Woellner, M.; Grothe, J.; Kaskel, S. Speeding Up Chemisorption Analysis by Direct IR-Heat-Release Measurements (Infrisorp Technology): A Screening Alternative to Breakthrough Measurements. *Ind. Eng. Chem. Res.* **2015**, *54*, 6677 – 6682. DOI: [10.1021/acs.iecr.5b01404](https://doi.org/10.1021/acs.iecr.5b01404)
- [8] Bon, V.; Kavosi, N.; Senkovska, I.; Kaskel, S. Tolerance of Flexible MOFs toward Repeated Adsorption Stress. *ACS Appl. Mater. Interfaces* **2015**, *7*, 22292 – 22300.
DOI: [10.1021/acsami.5b05456](https://doi.org/10.1021/acsami.5b05456)
- [9] Branton, P.; Leistner, M.; Woellner, M.; Kaskel, S. An Innovative Technique for Rapid Screening of Cigarette Filter Adsorbents. *Chem. Eng. Technol.* **2017**, *40*, 71 – 75. DOI: [10.1002/ceat.201600232](https://doi.org/10.1002/ceat.201600232)
- [10] Wöllner, M.; Leistner, M.; Benusch, M.; Wollmann, P.; Grählert, W.; Kaskel, S. A novel approach to rapid sizing of nanoparticles by using optical calorimetry. *Adv. Powder Technol.* **2017**, *28*, 1065 – 1068. DOI: [10.1016/j.appt.2017.01.012](https://doi.org/10.1016/j.appt.2017.01.012)
- [11] Wöllner, M.; Leistner, M.; Wollmann, P.; Benusch, M.; Klein, N.; Grählert, W.; Kaskel, S. Estimating pore size distributions of activated carbons via optical calorimetry. *Adsorption* **2017**, DOI: [10.1007/s10450-016-9852-3](https://doi.org/10.1007/s10450-016-9852-3)

- [12] Werner, A.; Wöllner, M.; Bludovsky, P.; Leistner, M.; Selzer, C.; Kaskel, S. Rapid screening of zeolite acidity by thermal response measurements using InfraSORP technology. *Microporous and Mesoporous Materials* **2018**, 268, 46. DOI: [10.1016/j.micromeso.2018.03.032](https://doi.org/10.1016/j.micromeso.2018.03.032)
- [13] Wöllner, M.; Klein, N.; Kaskel, S. Measuring water adsorption processes of metal-organic frameworks for heat pump applications via optical calorimetry. *Microporous and Mesoporous Materials* **2019**, 278, 206. DOI: [10.1016/j.micromeso.2018.11.024](https://doi.org/10.1016/j.micromeso.2018.11.024)
- [14] Bon, V.; Senkovska, I.; Evans, J.; Wöllner, M.; Hölzel, M.; Kaskel, S. Insights into the water adsorption mechanism in the chemically stable zirconium-based MOF DUT-67 – a prospective material for adsorption-driven heat transformations. *J. Mater. Chem. A* **2019**, 7, 12681. DOI: [10.1039/C9TA00825J](https://doi.org/10.1039/C9TA00825J)
- [15] Wegner, K.; Wöllner, M.; Zippel, R.; Medicus, M.; Schade, E.; Grothe, J.; Kaskel, S. Rapid Screening of CO Oxidation Catalysts Using Optical Calorimetry. *Ind. Eng. Chem. Res.* **2019**, 58, 43, 19839 – 19846. DOI: [10.1021/acs.iecr.9b04156](https://doi.org/10.1021/acs.iecr.9b04156)
- [16] Milescu, Roxana A.; Dennis, Michael R.; McElroy, C. Rob; Macquarrie, Duncan J.; Matharu, Avtar S.; Smith, Martin W.; Clark, James H.; Budarin, Vitaliy L. The role of surface functionality of sustainable mesoporous materials Starbon® on the adsorption of toxic ammonia and sulphur gasses. *Sustainable Chemistry and Pharmacy*, **2020**, 15, 100230. DOI: [10.1016/j.scp.2020.100230](https://doi.org/10.1016/j.scp.2020.100230)