

PUBLICATIONS / ORAL CONTRIBUTIONS / PATENTS

- More than 50 scientific publications since 1988, in addition co-authorship in more than 35 scientific reports
- More than 50 scientific oral contributions since 1988
- 10 patents

Activities since my stay at the FH Münster

- 2012 Talk A. Möller, J. Guderian
Carbon molecular sieves and their sorption characteristics
Conference ProcessNet-Expert group „Adsorption“ in Magdeburg
- 2013 Paper A. Möller, J. Guderian, J. Möllmer, M. Lange, J. Hofmann, R. Gläser
Kinetische Untersuchungen der adsorptiven Luftzerlegung an Kohlenstoffmolekularsieben
Chemie Ingenieur Technik 2013, 85, No. 11, 1680–1685
- 2013 Talk J. Guderian, A. Möller, M. Lange, J. Möllmer
Carbon Molecular Sieves – a kinetic study
Conference ProcessNet-Expert group „Adsorption“ in Bad Wildungen
- 2014 Poster A. Möller, J. Guderian, J. Möllmer, M. Lange
Breakthrough Curves of CO₂ and CH₄ on Carbon Molecular Sieves
- Experiment and Modelling
Conference “Diffusion Fundamentals V” in Leipzig
- 2014 Talk A. Möller, J. Guderian, J. Hofmann, P. Schandelmaier, R. Staudt
Breakthrough Curves of CO₂ and CH₄ on Carbon Molecular Sieves –
Experiment and Modelling
Conference ProcessNet-Expert group „Adsorption“ in Fulda
- 2014 Paper A. Möller, J. Guderian, J. Möllmer, M. Lange, J. Hofmann, R. Gläser
Kinetische Untersuchungen zur Aufkonzentrierung methanhaltiger
Gasmische an Kohlenstoffmolekularsieben
Chemie Ingenieur Technik 2014, 86, No. 1-2, 41-46
- 2015 Poster A. Möller, J. Guderian, R. Staudt, J. Möllmer
Breakthrough Curves of CO₂ and CH₄ on Carbon Molecular Sieves –
Experiment and Modelling
Conference “CARBON 2015” in Dresden
- 2016 Poster J. Guderian
Der 2 Bett-PSA-Versuchsstand an der FH Münster
Conference ProcessNet-Expert group „Adsorption“ in Duisburg
- 2016 Talk J. Guderian
Activated Carbon – Production and Application
European Course on Carbon Materials in Dresden
- 2016 Talk J. Guderian, A. Möller, R. Eschrich, C. Reichenbach, D. Klank
Kinetische und gleichgewichtsbasierende Untersuchungen zur adsorptiven
Luftzerlegung an Kohlenstoffmolekularsieben
Conference ProcessNet-Expert group „Adsorption“ in Duisburg

- 2017 Talk J. Guderian
Kinetische Untersuchungen zur adsorptiven Luftzerlegung im PSA Prozess
Symposium „Dynamische Sorptionsverfahren 2017“ in Leipzig
- 2017 Paper A. Möller, R. Eschrich, C. Reichenbach, J. Guderian, M. Lange, J. Möllmer
Dynamic and equilibrium-based investigations of CO₂-removal from CH₄-rich
gas mixtures on microporous adsorbents
Adsorption (2017) 23:197–209
- 2018 Talk C. Schledorn, W. Bongartz, J. Guderian
Abscheidung von Schwefelwasserstoff an imprägnierten Aktivkohlen
Conference ProcessNet-Expert group „Adsorption“ in Kiel
- 2018 Talk J. Guderian
Activated Carbon – Production and Application
European Course on Carbon Materials in Dresden
- 2018 Poster A. Marcinek, J. Guderian
The multifunctional 2-bed PSA test rig at Münster University of Applied Sciences
Symposium „Dynamische Sorptionsverfahren 2018“ in Leipzig
- 2019 Tutorial P. Pre, J. Guderian, Y. Yasuyuki, H. Tanaka, M. Miyahara
PSA processes
Conference “Fundamentals of Adsorption” in Cairns, Australia
- 2019 Poster C. Schledorn, W. Bongartz, J. Guderian
Separation of hydrogen sulphide with impregnated activated carbons
Conference “Fundamentals of Adsorption” in Cairns, Australia
- 2019 Poster A. Marcinek, A. Möller, D. Bathen, J. Guderian
Pressure-Swing-Adsorption for the production of high-purity nitrogen
Conference “Fundamentals of Adsorption” in Cairns, Australia
- 2020 Talk A. Marcinek, J. Guderian, D. Bathen
Performance determination of high-purity N₂-PSA plants
Conference ProcessNet-Expert group „Adsorption“ in Berchtesgaden
- 2020 Talk J. Guderian
Activated Carbon – Production and Application
European Course on Carbon Materials in Darmstadt
- 2020 Paper A. Marcinek, J. Guderian, D. Bathen
Performance determination of high-purity N₂-PSA-plants
Adsorption (2020) 26:1215–1226
- 2021 Talk J. Guderian
Process Intensification of PSA-plants
Symposium „Dynamische Sorptionsverfahren 2021“ in Leipzig
- 2021 Poster A. Marcinek, A. Möller, D. Bathen, J. Guderian
Dynamic simulation of high purity twin-bed N₂-PSA plants
Twitter Poster Conference of the IAS International Adsorption Society

- 2021 Paper A. Marcinek, J. Guderian, D. Bathen
Process intensification of the high-purity nitrogen production in twin-bed Pressure Swing Adsorption plants
Adsorption 27, 937–952 (2021)
- 2021 Paper A. Marcinek, A. Möller, J. Guderian, D. Bathen
Dynamic simulation of high-purity twin-bed N₂-PSA plants
Adsorption 27, 1149–1173 (2021)
- 2022 Talk A. Marcinek, J. Guderian
Scale-up analysis of a twin-bed PSA pilot plant
Conference ProcessNet-Expert group „Adsorption“ in Duisburg
- 2022 Talk J. Guderian
Activated Carbon – Production and Application
European Course on Carbon Materials in Darmstadt
- 2022 Poster A. Marcinek, P. Barcia, J. Guderian
Scale-up analysis of a twin-bed PSA pilot plant
Twitter Poster Conference of the IAS International Adsorption Society
- 2022 Poster A. Marcinek, J. Guderian, D. Bathen
Dynamic simulation of high purity twin-bed N₂-PSA plants
Conference “Fundamentals of Adsorption” in Cairns, Australia
- 2023 Paper A. Marcinek, J. Guderian
Scale-up analysis of a twin-bed PSA pilot plant
Adsorption 29, 125–139 (2023)
- 2023 Talk A. Marcinek, J. Guderian
Process-based evaluation of adsorbents: Effect of CMS pellet size on the N₂-PSA performance
Conference ProcessNet-Expert group „Adsorption“ in Frankfurt
- 2023 Poster G. Chiari, S. Kuhlich, J. Guderian
Der erweiterte 2-Bett-PSA-Versuchsstand an der FH Münster zur Untersuchung des Einflusses der Feuchtebelastung im Feedgas auf die CMS-Performance
Conference ProcessNet-Expert group „Adsorption“ in Frankfurt
- 2023 PhD Seminar J. Guderian
Process intensification in Pressure Swing Adsorption Plants
DICAM Department, University of Bologna
- 2023 Paper A. Marcinek, J. Guderian
Process-based evaluation of adsorbents: effect of CMS pellet size on the N₂-PSA performance
Adsorption (2023) <https://doi.org/10.1007/s10450-023-00410-1>