

Selection of automotive-related papers

- S. Walter, G. Hagen, D. Koch, A. Geißelmann, R. Moos:
On the Suitability of NO_x-Storage-Catalysts for Hydrogen Internal Combustion Engines and a Radio Frequency-Based NO_x Loading Monitoring
Topics in Catalysis, in press, doi: 10.1007/s11244-022-01727-x, <https://doi.org/10.1007/s11244-022-01727-x>
- V. Malashchuk, S. Walter, M. Engler, G. Hagen, G. Link, J. Jelonnek, F. Raß, R. Moos:
Reducing Cold-Start Emissions by Microwave-Based Catalyst Heating: Simulation Studies
open access - free *Topics in Catalysis*, in press, doi: 10.1007/s11244-023-01788-6, <https://doi.org/10.1007/s11244-023-01788-6>
- C. Steiner, T. Wöhr, M. Steiner, J. Kita, A. Müller, H. Eisazadeh, R. Moos, G. Hagen:
Resistive Multi-Gas Sensor for Simultaneously Measuring the Oxygen Stoichiometry (λ) and the NO_x Concentration in Exhausts: Engine Tests under Dynamic Conditions
open access - free *Sensors*, **23**, 5612 (2023), doi: [10.3390/s23125612](https://doi.org/10.3390/s23125612)
- C. Steiner, S. Püls, M. Bektas, A. Müller, G. Hagen, R. Moos:
Resistive, Temperature-Independent Metal Oxide Gas Sensor for Detecting the Oxygen Stoichiometry (Air-Fuel Ratio) of Lean Engine Exhaust Gases
open access - free *Sensors*, **23**, 3914 (2023), doi: [10.3390/s23083914](https://doi.org/10.3390/s23083914)
- S. Walter, P. Schwanzer, C. Steiner, G. Hagen, H.-P. Rabl, M. Dietrich, R. Moos:
Mixing Rules for an Exact Determination of the Dielectric Properties of Engine Soot Using the Microwave Cavity Perturbation Method and Its Application in Gasoline Particulate Filters
open access - free *Sensors*, **22**, 3311 (2022), doi: [10.3390/s22093311](https://doi.org/10.3390/s22093311)
- P. Schwanzer, M. Schillinger, J. Mieslinger, S. Walter, G. Hagen, S. Märkl, G. Haft, M. Dietrich, R. Moos, M. Gaderer, H.-P. Rabl:
A Synthetic Ash-Loading Method for Gasoline Particulate Filters with Active Oil Injection
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- C. Steiner, S. Walter, V. Malashchuk, G. Hagen, I. Kogut, H. Fritze, R. Moos:
Determination of the Dielectric Properties of Storage Materials for Exhaust Gas Aftertreatment Using the Microwave Cavity Perturbation Method
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- S. Walter, P. Schwanzer, G. Hagen, G. Haft, H.-P. Rabl, M. Dietrich, R. Moos:
Modelling the Influence of Different Soot Types on the Radio-Frequency-Based Load Detection of Gasoline Particulate Filters
open access - free *Sensors*, **20**, 2659 (2020), doi: [10.3390/s20092659](https://doi.org/10.3390/s20092659)
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Hochfrequenzsensorik zur direkten Beladungserkennung von Benzinpartikelfiltern
In: T. Tille (Hrsg.), *Automobil-Sensorik 3 - Prinzipien, Technologien und Anwendungen*, Springer-Verlag, Heidelberg (2020), p. 185-208, 978-3-662-61259-0 (gedruckt), ISBN 978-3-662-61260-6 (online), doi: [10.1007/978-3-662-61260-6_7](https://doi.org/10.1007/978-3-662-61260-6_7)
- C. Steiner, V. Malashchuk, D. Kubinski, G. Hagen, R. Moos:
Catalyst State Diagnosis of Three-Way Catalytic Converters Using Different Resonance Parameters—A Microwave Cavity Perturbation Study
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- M. Dietrich, G. Hagen, R. Moos:
Dielectric properties and temperature dependency of automotive catalyst coatings and substrate materials: Experimental results, influences and approximation approach
Functional Materials Letters, **12**, 195024 (2019), doi: [10.1142/S1793604719500243](https://doi.org/10.1142/S1793604719500243)
- C. Steiner, A. Gänzler, M. Zehentbauer, G. Hagen, M. Casapu, S. Müller, J.-D. Grunwaldt, R. Moos:
Oxidation State and Dielectric Properties of Ceria-Based Catalysts by Complementary Microwave Cavity Perturbation and X-Ray Absorption Spectroscopy Measurements
Topics in Catalysis, **62**, 227-236 (2019), doi: [10.1007/s11244-018-1110-3](https://doi.org/10.1007/s11244-018-1110-3)
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- T. Ritter, M. Seibel, F. Hofmann, M. Weibel, R. Moos:
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A finite element model for mixed potential sensors
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- P. Chen, V. Rizzotto, A. Khetan, K. Xie, R. Moos, H. Pitsch, D. Ye, U. Simon:
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ACS Applied Materials & Interfaces, **11**, 8097–8105 (2019), doi: [10.1021/acsami.8b22104](https://doi.org/10.1021/acsami.8b22104)
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- G. Hagen, C. Spannbauer, M. Feulner, J. Kita, A. Müller, R. Moos:
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- Y. Zheng, U. Sauter, R. Moos:
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