# Klas Engvall

List of Publications by Year
in descending order

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| 54 | 1,419 | 279798 | 345221 |
|---|---|---|---|
| papers | citations | 23 h-index | 36 g-index |

| 55 | 55 | 55 | 1513 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Experimental and Numerical Investigation of Flow Field and Soot Particle Size Distribution of Methane-Containing Gas Mixtures in a Swirling Burner. ACS Omega, 2022, 7, 469-479. | 3.5 | 0 |
| 2 | Real-time monitoring of alkali release during CO2 gasification of different types of biochar. Fuel, 2022, 327, 125102. | 6.4 | 11 |
| 3 | Fragmentation of dolomite bed material at pressurized conditions in the presence of H2O and CO2: Implications for pressurized fluidized bed gasification. Fuel, 2021, 285, 119061. | 6.4 | 7 |
| 4 | Reaction mechanisms for H2O-enhanced dolomite calcination at high pressure. Fuel Processing Technology, 2021, 217, 106830. | 7.2 | 12 |
| 5 | Corrigendum to â€œReaction mechanisms for H2O-enhanced dolomite calcination at high pressureâ€• [Fuel Processing Technology 217 (2021) 106830]. Fuel Processing Technology, 2021, 218, 106865. | 7.2 | 0 |
| 6 | Detailed numerical simulations of low-temperature oxidation of NO by ozone. Fuel, 2021, 303, 121238. | 6.4 | 3 |
| 7 | CO<sub>2</sub> Gasification Reactivity of Char from High-Ash Biomass. ACS Omega, 2021, 6, 34115-34128. | 3.5 | 8 |
| 8 | Fragmentation of dolomite bed material at elevated temperature in the presence of H2O & CO2: Implications for fluidized bed gasification. Fuel, 2020, 260, 116340. | 6.4 | 21 |
| 9 | Recent progress on parylene C polymer for biomedical applications: A review. Progress in Organic Coatings, 2020, 140, 105493. | 3.9 | 87 |
| 10 | Gas-Phase Potassium Effects and the Role of the Support on the Tar Reforming of Biomass-Derived Producer Gas Over Sulfur-Equilibrated Ni/MgAl<sub>2</sub>O<sub>4</sub>. Energy & Fuels, 2020, 34, 11103-11111. | 5.1 | 6 |
| 11 | Effects of Porous Structure Development and Ash on the Steam Gasification Reactivity of Biochar Residues from a Commercial Gasifier at Different Temperatures. Energies, 2020, 13, 5004. | 3.1 | 7 |
| 12 | Review and numerical investigation of the mean flow features of a round turbulent jet in counterflow. Physics of Fluids, 2020, 32, . | 4.0 | 11 |
| 13 | Investigation of the surface species during temperature dependent dehydrogenation of naphthalene on Ni(111). Journal of Chemical Physics, 2019, 150, 244704. | 3.0 | 3 |
| 14 | Experimental and modelling studies on condensation of inorganic species during cooling of product gas from pressurized biomass fluidized bed gasification. Energy, 2018, 153, 35-44. | 8.8 | 13 |
| 15 | Biomass pyrolysis gas conditioning over an iron-based catalyst for mild deoxygenation and hydrogen production. Fuel, 2018, 211, 149-158. | 6.4 | 31 |
| 16 | Modelling and Optimization of a Small Diesel Burner for Mobile Applications. Energies, 2018, 11, 2904. | 3.1 | 6 |
| 17 | Novel Model for the Release and Condensation of Inorganics for a Pressurized Fluidized-Bed Gasification Process: Effects of Gasification Temperature. ACS Omega, 2018, 3, 6321-6329. | 3.5 | 9 |
| 18 | Surface treatments of metal supports for photocatalysis applications. Applied Surface Science, 2017, 401, 283-296. | 6.1 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Selection of dolomite bed material for pressurized biomass gasification in BFB. Fuel Processing Technology, 2017, 159, 460-473. | 7.2 | 21 |
| 20 | Pyrolysis of Wood in a Rotary Kiln Pyrolyzer: Modeling and Pilot Plant Trials. Energy Procedia, 2017, 105, 908-913. | 1.8 | 10 |
| 21 | Naphthalene on Ni(111): Experimental and Theoretical Insights into Adsorption, Dehydrogenation, and Carbon Passivation. Journal of Physical Chemistry C, 2017, 121, 22199-22207. | 3.1 | 13 |
| 22 | Modeling and pilot plant runs of slow biomass pyrolysis in a rotary kiln. Applied Energy, 2017, 207, 123-133. | 10.1 | 49 |
| 23 | Equilibrium potassium coverage and its effect on a Ni tar reforming catalyst in alkali- and sulfur-laden biomass gasification gases. Applied Catalysis B: Environmental, 2016, 190, 137-146. | 20.2 | 39 |
| 24 | Modeling, Design, and Verification of a Burner for Partial Oxidation of Biomass Product Gas in an Autothermal Reformer. Industrial & Engineering Chemistry Research, 2016, 55, 9687-9697. | 3.7 | 2 |
| 25 | Biomass oxygen/steam gasification in a pressurized bubbling fluidized bed: Agglomeration behavior. Applied Energy, 2016, 172, 230-250. | 10.1 | 71 |
| 26 | A Medium-Scale 50 MWfuel Biomass Gasification Based Bio-SNG Plant: A Developed Gas Cleaning Process. Energies, 2015, 8, 5287-5302. | 3.1 | 12 |
| 27 | Model-free rate expression for thermal decomposition processes: The case of microcrystalline cellulose pyrolysis. Fuel, 2015, 143, 438-447. | 6.4 | 34 |
| 28 | Effect of gas phase alkali species on tar reforming catalyst performance: Initial characterization and method development. Fuel, 2015, 154, 95-106. | 6.4 | 28 |
| 29 | Tar Variability in the Producer Gas in a Bubbling Fluidized Bed Gasification System. Energy & Fuels, 2014, 28, 7494-7500. | 5.1 | 6 |
| 30 | Co-gasification of petroleum coke and biomass. Fuel, 2014, 117, 870-875. | 6.4 | 115 |
| 31 | Development of a PID based on-line tar measurement method â€“ Proof of concept. Fuel, 2013, 113, 113-121. | 6.4 | 19 |
| 32 | Application of Solid-Phase Microextraction (SPME) as a Tar Sampling Method. Energy & Fuels, 2013, 27, 3853-3860. | 5.1 | 6 |
| 33 | Modelling and Simulation of Biomass Conversion Processes. , 2013, , . | | 1 |
| 34 | Engineering of bone fixation metal implants biointerfaceâ€”Application of parylene C as versatile protective coating. Materials Science and Engineering C, 2012, 32, 2431-2435. | 7.3 | 28 |
| 35 | Iron-based materials as tar depletion catalysts in biomass gasification: Dependency on oxygen potential. Fuel, 2012, 95, 71-78. | 6.4 | 69 |
| 36 | Parylene coatings on stainless steel 316L surface for medical applications â€” Mechanical and protective properties. Materials Science and Engineering C, 2012, 32, 31-35. | 7.3 | 47 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Silaneâ€“parylene coating for improving corrosion resistance of stainless steel 316L implant material. Corrosion Science, 2011, 53, 296-301. | 6.6 | 111 |
| 38 | Defluidisation of fluidised beds during gasification of biomass. Biomass and Bioenergy, 2011, 35, S63-S70. | 5.7 | 26 |
| 39 | Biomass gasification in an atmospheric fluidised bed: Tar reduction with experimental iron-based granules from HÃ¶ganÃs AB, Sweden. Catalysis Today, 2011, 176, 253-257. | 4.4 | 29 |
| 40 | Development of an on-line tar measurement method based on photo ionization technique. Catalysis Today, 2011, 176, 250-252. | 4.4 | 15 |
| 41 | Upgrading of Raw Gas from Biomass and Waste Gasification: Challenges and Opportunities. Topics in Catalysis, 2011, 54, 949-959. | 2.8 | 25 |
| 42 | Metal release and formation of surface precipitate at stainless steel grade 316 and Hanks solution interface â€“ Inflammatory response and surface finishing effects. Corrosion Science, 2009, 51, 1157-1162. | 6.6 | 38 |
| 43 | High Pressure Desorption of K+from Iron Ammonia Catalyst â€“ Migration of the Promoter Towards Fe Active Planes. Catalysis Letters, 2004, 95, 93-97. | 2.6 | 6 |
| 44 | A Surface Ionization Instrument for On-Line Measurements of Alkali Metal Components in Combustion:â€‰ Instrument Description and Applications. Energy & Fuels, 2002, 16, 1369-1377. | 5.1 | 46 |
| 45 | Desorption Kinetics at Atmospheric Pressure:Â Alkali Metal Ion Emission from Hot Platinum Surfaces. Journal of Physical Chemistry B, 2000, 104, 4457-4462. | 2.6 | 21 |
| 46 | Cluster KN formation by Rydberg collision complex stabilization during scattering of a K beam off zirconia surfaces. Journal of Chemical Physics, 1999, 110, 1212-1220. | 3.0 | 43 |
| 47 | Long-Range Diffusion of K Promoter on an Ammonia Synthesis Catalyst Surfaceâ€”Ionization of Excited Potassium Species in the Sample Edge Fields. Journal of Catalysis, 1999, 181, 256-264. | 6.2 | 34 |
| 48 | In situ characterization of an iron catalyst by potassium ion desorption and electron emission measurements. Reaction Kinetics and Catalysis Letters, 1998, 63, 219-224. | 0.6 | 7 |
| 49 | Angular resolved neutral desorption of potassium promoter from surfaces of iron catalysts. Surface Science, 1995, 342, 327-340. | 1.9 | 40 |
| 50 | Emission of excited potassium species from an industrial iron catalyst for ammonia synthesis. Catalysis Letters, 1994, 26, 101-107. | 2.6 | 35 |
| 51 | Field ionisation of excited alkali atoms emitted from catalyst surfaces. Applied Surface Science, 1992, 55, 303-308. | 6.1 | 30 |
| 52 | Comparative loss of alkali promoter by desorption from two catalysts for the dehydrogenation of ethyl benzene to styrene. Applied Catalysis, 1991, 77, 235-241. | 0.8 | 30 |
| 53 | Loss of alkali promoter by desorption from promoted vanadium oxide catalysts. Catalysis Letters, 1991, 11, 41-48. | 2.6 | 18 |
| 54 | Mechanism of potassium loss by desorption from an iron oxide catalyst for the styrene process. Catalysis Letters, 1990, 6, 85-93. | 2.6 | 40 |