

Athanasios G Konstandopoulos

List of Publications by Year in descending order

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81
papers

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218677

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times ranked

2279
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| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Fundamental Studies of Diesel Particulate Filters: Transient Loading, Regeneration and Aging. , 0, , . | | 331 |
| 2 | Evaluation of porous silicon carbide monolithic honeycombs as volumetric receivers/collectors of concentrated solar radiation. Solar Energy Materials and Solar Cells, 2007, 91, 474-488. | 6.2 | 185 |
| 3 | Solar Hydrogen Production by a Two-Step Cycle Based on Mixed Iron Oxides. Journal of Solar Energy Engineering, Transactions of the ASME, 2006, 128, 125-133. | 1.8 | 140 |
| 4 | Solar hydrogen: fuel of the near future. Energy and Environmental Science, 2010, 3, 279. | 30.8 | 126 |
| 5 | Microstructural Properties of Soot Deposits in Diesel Particulate Traps. , 0, , . | | 112 |
| 6 | Inertial Contributions to the Pressure Drop of Diesel Particulate Filters. , 0, , . | | 97 |
| 7 | Cobalt oxide based structured bodies as redox thermochemical heat storage medium for future CSP plants. Solar Energy, 2014, 108, 146-163. | 6.1 | 95 |
| 8 | Reciprocating flow regeneration of soot filters. Combustion and Flame, 2000, 121, 488-500. | 5.2 | 93 |
| 9 | Calcium oxide based materials for thermochemical heat storage in concentrated solar power plants. Solar Energy, 2015, 122, 215-230. | 6.1 | 89 |
| 10 | Hydrogen production via solar-aided water splitting thermochemical cycles: Combustion synthesis and preliminary evaluation of spinel redox-pair materials. International Journal of Hydrogen Energy, 2012, 37, 8964-8980. | 7.1 | 85 |
| 11 | Particle sticking/rebound criteria at oblique impact. Journal of Aerosol Science, 2006, 37, 292-305. | 3.8 | 83 |
| 12 | Flow Resistance Descriptors for Diesel Particulate Filters: Definitions, Measurements and Testing. , 0, , . | | 82 |
| 13 | Evolution of aggregate size and fractal dimension during Brownian coagulation. Journal of Aerosol Science, 2001, 32, 1399-1420. | 3.8 | 80 |
| 14 | Progress in Diesel Particulate Filter Simulation. , 2005, , . | | 80 |
| 15 | Cobalt/cobaltous oxide based honeycombs for thermochemical heat storage in future concentrated solar power installations: Multi-cyclic assessment and semi-quantitative heat effects estimations. Solar Energy, 2016, 133, 394-407. | 6.1 | 79 |
| 16 | Hydrogen production in solar reactors. Catalysis Today, 2007, 127, 265-277. | 4.4 | 71 |
| 17 | Hydrogen production via sulfur-based thermochemical cycles: Part 2: Performance evaluation of Fe ₂ O ₃ -based catalysts for the sulfuric acid decomposition step. International Journal of Hydrogen Energy, 2011, 36, 6496-6509. | 7.1 | 71 |
| 18 | Hydrogen production via solar-aided water splitting thermochemical cycles with nickel ferrite: Experiments and modeling. AIChE Journal, 2013, 59, 1213-1225. | 3.6 | 67 |

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|----|---|-----|-----------|
| 19 | Multi-channel simulation of regeneration in honeycomb monolithic diesel particulate filters. <i>Chemical Engineering Science</i> , 2003, 58, 3273-3283. | 3.8 | 65 |
| 20 | Deposit growth dynamics: particle sticking and scattering phenomena. <i>Powder Technology</i> , 2000, 109, 262-277. | 4.2 | 62 |
| 21 | Aerosol spray pyrolysis synthesis of water-splitting ferrites for solar hydrogen production. <i>Granular Matter</i> , 2008, 10, 113-122. | 2.2 | 53 |
| 22 | Hydrogen production via sulfur-based thermochemical cycles: Part 1: Synthesis and evaluation of metal oxide-based candidate catalyst powders for the sulfuric acid decomposition step. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 2831-2844. | 7.1 | 53 |
| 23 | Material development and assessment of an energy storage concept based on the CaO-looping process. <i>Solar Energy</i> , 2017, 150, 298-309. | 6.1 | 51 |
| 24 | Toxicity assessment and comparison between two types of iron oxide nanoparticles in <i>Mytilus galloprovincialis</i> . <i>Aquatic Toxicology</i> , 2016, 172, 9-20. | 4.0 | 49 |
| 25 | Update on the Science and Technology of Diesel Particulate Filters. <i>KONA Powder and Particle Journal</i> , 2008, 26, 36-65. | 1.7 | 46 |
| 26 | Cluster-Cluster Aggregation Kinetics and Primary Particle Growth of Soot Nanoparticles in Flame by Light Scattering and Numerical Simulations. <i>Journal of Colloid and Interface Science</i> , 2002, 247, 33-46. | 9.4 | 44 |
| 27 | Multi-cyclic evaluation of composite CaO-based structured bodies for thermochemical heat storage via the CaO/Ca(OH) ₂ reaction scheme. <i>Solar Energy</i> , 2017, 146, 65-78. | 6.1 | 43 |
| 28 | Advances in the science and technology of diesel particulate filter simulation. <i>Advances in Chemical Engineering</i> , 2007, , 213-294. | 0.9 | 38 |
| 29 | Study of Basic Oxidation and Combustion Characteristics of Aluminum Nanoparticles under Engine-like Conditions. <i>Energy & Fuels</i> , 2014, 28, 3430-3441. | 5.1 | 37 |
| 30 | Catalytic Filter Systems with Direct and Indirect Soot Oxidation Activity. , 2005, , . | | 33 |
| 31 | Hydrogen production via sulfur-based thermochemical cycles: Part 3: Durability and post-characterization of silicon carbide honeycomb substrates coated with metal oxide-based candidate catalysts for the sulfuric acid decomposition step. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 8190-8203. | 7.1 | 33 |
| 32 | Impact of Combination of EGR, SCR, and DPF Technologies for the Low-Emission Rail Diesel Engines. <i>Emission Control Science and Technology</i> , 2015, 1, 213-225. | 1.5 | 28 |
| 33 | Gas and liquid phase fuels desulphurization for hydrogen production via reforming processes. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 4953-4962. | 7.1 | 27 |
| 34 | Morphology and mobility of synthetic colloidal aggregates. <i>Journal of Colloid and Interface Science</i> , 2014, 417, 27-36. | 9.4 | 27 |
| 35 | A Methodology for the Fast Evaluation of the Effect of Ash Aging on the Diesel Particulate Filter Performance. , 0, , . | | 26 |
| 36 | Diesel Fuel Desulfurization via Adsorption with the Aid of Activated Carbon: Laboratory- and Pilot-Scale Studies. <i>Energy & Fuels</i> , 2015, 29, 5640-5648. | 5.1 | 26 |

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|----|--|-----|-----------|
| 37 | Study of Brake Wear Particle Emissions of a Minivan on a Chassis Dynamometer. <i>Emission Control Science and Technology</i> , 2018, 4, 271-278. | 1.5 | 26 |
| 38 | Effect of soot layer microstructure on diesel particulate filter regeneration. <i>AIChE Journal</i> , 2005, 51, 2534-2546. | 3.6 | 25 |
| 39 | Inertial deposition of particles from potential flows past cylinder arrays. <i>Journal of Aerosol Science</i> , 1993, 24, 471-483. | 3.8 | 23 |
| 40 | Improved kinetic model for water splitting thermochemical cycles using Nickel Ferrite. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 6317-6327. | 7.1 | 23 |
| 41 | Soot Oxidation Kinetics in Diesel Particulate Filters. , 2007, , . | | 22 |
| 42 | Improved Transfer Coefficients for Wall-Flow Monolithic Catalytic Reactors: Energy and Momentum Transport. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 13062-13072. | 3.7 | 22 |
| 43 | Study of Oxidation and Combustion Characteristics of Iron Nanoparticles under Idealized and Engine-like Conditions. <i>Energy & Fuels</i> , 2016, 30, 4318-4330. | 5.1 | 21 |
| 44 | Soot Oxidation Kinetics of Different Ceria Nanoparticle Catalysts. <i>Emission Control Science and Technology</i> , 2015, 1, 247-253. | 1.5 | 20 |
| 45 | A Multi-Reactor Assembly for Screening of Diesel Particulate Filters. , 2006, , . | | 18 |
| 46 | One-dimensional model of solar thermal reactors for the co-production of hydrogen and carbon black from methane decomposition. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 189-202. | 7.1 | 17 |
| 47 | Development and evaluation of materials for thermochemical heat storage based on the CaO/CaCO ₃ reaction couple. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 17 |
| 48 | Thermochemical storage for CSP via redox structured reactors/heat exchangers: The RESTRUCTURE project. <i>AIP Conference Proceedings</i> , 2017, , . | 0.4 | 16 |
| 49 | Catalytic Nano-structured Materials for Next Generation Diesel Particulate Filters. <i>SAE International Journal of Materials and Manufacturing</i> , 0, 1, 189-198. | 0.3 | 15 |
| 50 | Emission Reduction Technologies for the Future Low Emission Rail Diesel Engines: EGR vs SCR. , 2013, , . | | 15 |
| 51 | Friction Coefficient and Mobility Radius of Fractal-Like Aggregates in the Transition Regime. <i>Aerosol Science and Technology</i> , 2014, 48, 1320-1331. | 3.1 | 14 |
| 52 | Two-dimensional model of methane thermal decomposition reactors with radiative heat transfer and carbon particle growth. <i>AIChE Journal</i> , 2012, 58, 2545-2556. | 3.6 | 13 |
| 53 | Shortlisting of Composite CaO-Based Structured Bodies Suitable for Thermochemical Heat Storage with the CaO/Ca(OH) ₂ Reaction Scheme. <i>Energy & Fuels</i> , 2017, 31, 6548-6559. | 5.1 | 13 |
| 54 | Transportation and solar-aided utilization of CO ₂ : Technoeconomic analysis of spanning routes of CO ₂ conversion to solar fuels. <i>Journal of CO₂ Utilization</i> , 2019, 30, 142-157. | 6.8 | 13 |

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| 55 | Wall-scale Reaction Models in Diesel Particulate Filters. , 0, , . | | 12 |
| 56 | Effect of seeding on hydrogen and carbon particle production in a 10ÂMW solar thermal reactor for methane decomposition. International Journal of Hydrogen Energy, 2012, 37, 16570-16580. | 7.1 | 11 |
| 57 | A Heterogeneous Multiscale Dynamic Model for Simulation of Catalytic Reforming Reactors. International Journal of Chemical Kinetics, 2016, 48, 239-252. | 1.6 | 11 |
| 58 | Experimental proof of concept of a pilot-scale thermochemical storage unit. AIP Conference Proceedings, 2017, , . | 0.4 | 11 |
| 59 | Oxidative Reactivity of Particulate Samples from Different Diesel Combustion Systems and Its Relation to Structural and Spectral Characteristics of Soot. Emission Control Science and Technology, 2019, 5, 99-123. | 1.5 | 11 |
| 60 | Oxide particles as combined heat storage medium and sulphur trioxide decomposition catalysts for solar hydrogen production through sulphur cycles. International Journal of Hydrogen Energy, 2019, 44, 9830-9840. | 7.1 | 10 |
| 61 | Development of an on-line exposure system to determine freshly produced diesel engine emission-induced cellular effects. Toxicology in Vitro, 2013, 27, 1746-1752. | 2.4 | 9 |
| 62 | Analysis of CO ₂ transport including impurities for the optimization of point-to-point pipeline networks for integration into future solar fuel plants. International Journal of Greenhouse Gas Control, 2017, 66, 10-24. | 4.6 | 8 |
| 63 | HYDROSOL-PLANT: Structured redox reactors for H ₂ production from solar thermochemical H ₂ O splitting. AIP Conference Proceedings, 2018, , . | 0.4 | 8 |
| 64 | Oxide Nanoparticles for Hydrogen Production from Water-Splitting and Catalytic Oxidation of Diesel Exhaust Emissions. Nanoscience and Nanotechnology Letters, 2011, 3, 697-704. | 0.4 | 7 |
| 65 | Zinc-copper oxide coated monolithic reactors for high capacity hydrogen sulphide removal from gaseous streams. International Journal of Hydrogen Energy, 2016, 41, 21251-21260. | 7.1 | 7 |
| 66 | On kinetic modelling for solar redox thermochemical H ₂ O and CO ₂ splitting over NiFe ₂ O ₄ for H ₂ , CO and syngas production. Physical Chemistry Chemical Physics, 2017, 19, 26776-26786. | 2.8 | 7 |
| 67 | Co ₃ O ₄ -based honeycombs as compact redox reactors/heat exchangers for thermochemical storage in the next generation CSP plants. AIP Conference Proceedings, 2016, , . | 0.4 | 6 |
| 68 | Valorization of Plastic Waste: A Lab-Scale Approach with the Aid of Solar Hydrothermal Liquefaction Technology. Waste and Biomass Valorization, 2022, 13, 3835-3844. | 3.4 | 6 |
| 69 | Application of Digital Material Methods to Silicon Carbide Diesel Particulate Filters. , 2007, , . | | 5 |
| 70 | The Micromechanics of Catalytic Soot Oxidation in Diesel Particulate Filters. , 2012, , . | | 5 |
| 71 | Catalytic Soot Oxidation: Effect of Ceria-Zirconia Catalyst Particle Size. SAE International Journal of Engines, 2016, 9, 1709-1719. | 0.4 | 4 |
| 72 | Urban guerrilla activities in Greece. Technological Forecasting and Social Change, 2005, 72, 49-58. | 11.6 | 3 |

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| 73 | Iron oxide-based particles for high temperature thermochemical energy storage via the elemental sulfur thermochemical cycle. AIP Conference Proceedings, 2019, , . | 0.4 | 3 |
| 74 | Valorization of organic waste with the aid of solar hydrothermal liquefaction technology. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 75 | Novel Monolithic Reactors for Solar Thermochemical Water Splitting. , 0, , 621-639. | | 1 |
| 76 | Characterization of Qatarâ€™s surface carbonates for CO2 capture and thermochemical energy storage. AIP Conference Proceedings, 2017, , . | 0.4 | 1 |
| 77 | Solar Hydrogen Production. Biofuels and Biorefineries, 2015, , 283-311. | 0.5 | 1 |
| 78 | A Tutorial on Testing Particulate Filters with a Side-Stream Reactor (SSR) Exhaust Setup. Emission Control Science and Technology, 2018, 4, 312-320. | 1.5 | 0 |
| 79 | On the Effective Density and Fractalâ€™Like Dimension of Diesel Soot Aggregates as a Function of Mobility Diameter. Emission Control Science and Technology, 2018, 4, 240-246. | 1.5 | 0 |
| 80 | Solar fuels and industrial solar chemistry. , 2021, , 677-724. | | 0 |
| 81 | Recent Advances in Diesel Particulate Emission Control. The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2017, 2017.9, A313. | 0.1 | 0 |