

# Kyu-Seop Kim

## List of Publications by Year in descending order

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62  
papers

1,014  
citations

331670

21  
h-index

477307

29  
g-index

64  
all docs

64  
docs citations

64  
times ranked

622  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Parametric Study of Solid Fuel for Hydrogen Peroxide Hybrid Rocket Design. <i>Journal of Propulsion and Power</i> , 2022, 38, 229-240.   | 2.2 | 3         |
| 2  | Optical visualization of hypergolic burning spray structure using blue light spectrum. <i>Acta Astronautica</i> , 2022, 193, 230-236.  | 3.2 | 2         |
| 3  | Performance of MEMS-Based Monopropellant Microthruster With Insulating Effect. <i>Journal of Microelectromechanical Systems</i> , 2022, 31, 612-624.                               | 2.5 | 5         |
| 4  | Ultrafast igniting, low toxicity hypergolic hybrid solid fuels and hydrogen peroxide oxidizer. <i>Fuel</i> , 2021, 286, 119307.  | 6.4 | 28        |
| 5  | Manganese oxide lanthanum-doped alumina catalyst for application in 95Åwt.% hydrogen peroxide thruster. <i>CEAS Space Journal</i> , 2021, 13, 189-196.                             | 2.3 | 4         |
| 6  | Port diameter design of multiport solid fuel in hydrogen peroxide hybrid rockets. <i>Aerospace Science and Technology</i> , 2021, 110, 106485.                                     | 4.8 | 9         |
| 7  | Preparation and Performance Evaluation of Platinum Barium Hexaaluminate Catalyst for Green Propellant Hydroxylamine Nitrate Thrusters. <i>Materials</i> , 2021, 14, 2828.          | 2.9 | 1         |
| 8  | Combustion Characteristics of Multi-Element Swirl Coaxial Jet Injectors under Varying Momentum Ratios. <i>Energies</i> , 2021, 14, 4064.   | 3.1 | 0         |
| 9  | Rapid ignition of "green" bipropellants enlisting hypergolic copper (II) promoter-in-fuel. <i>Fuel</i> , 2021, 297, 120734.  | 6.4 | 16        |
| 10 | Synergistic effect of a hybrid additive for hydrogen peroxide-based low toxicity hypergolic propellants. <i>Combustion and Flame</i> , 2021, 231, 111450.                          | 5.2 | 10        |
| 11 | Geostationary Orbit Transfer with Lunar Gravity Assist from Non-equatorial Launch Site. <i>Journal of the Astronautical Sciences</i> , 2021, 68, 1014-1033.                        | 1.5 | 2         |
| 12 | Scaling of catalyst bed for hydrogen peroxide monopropellant thrusters using catalytic decomposition modeling. <i>Acta Astronautica</i> , 2021, 187, 167-180.                      | 3.2 | 10        |
| 13 | Integration validation of key components for small sounding rockets. <i>Aerospace Science and Technology</i> , 2020, 100, 105823.  | 4.8 | 15        |
| 14 | Ignition of boron-based green hypergolic fuels with hydrogen peroxide. <i>Fuel</i> , 2019, 255, 115729.  | 6.4 | 53        |
| 15 | A mixture of hydrogen peroxide and tetraglyme as a green energetic monopropellant. <i>Combustion and Flame</i> , 2019, 210, 43-53.   | 5.2 | 7         |
| 16 | All-in-one portable electric power plant using proton exchange membrane fuel cells for mobile applications. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 6331-6339. | 7.1 | 22        |
| 17 | Fuel cell system with sodium borohydride hydrogen generator for small unmanned aerial vehicles. <i>International Journal of Green Energy</i> , 2018, 15, 385-392.                  | 3.8 | 24        |
| 18 | Effect of dual-catalytic bed using two different catalyst sizes for hydrogen peroxide thruster. <i>Aerospace Science and Technology</i> , 2018, 78, 26-32.                         | 4.8 | 14        |

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|----|---|-----|-----------|
| 19 | Conceptual design of high-speed underwater jet engine using high concentration of hydrogen peroxide. <i>Ocean Engineering</i> , 2018, 153, 193-200.   | 4.3 | 6         |
| 20 | Ground Simulation of High Altitude Test of Turbo-Refrigeration Cycle. <i>International Journal of Turbo and Jet Engines</i> , 2018, 35, 281-290.  | 0.7 | 0         |
| 21 | High performance microthruster with ammonium-dinitramide-based monopropellant. <i>Sensors and Actuators A: Physical</i> , 2018, 283, 211-219.   | 4.1 | 12        |
| 22 | Design of Multiport Grain with Hydrogen Peroxide Hybrid Rocket. <i>Journal of Propulsion and Power</i> , 2018, 34, 1189-1197.   | 2.2 | 23        |
| 23 | Green hypergolic combination: Diethylenetriamine-based fuel and hydrogen peroxide. <i>Acta Astronautica</i> , 2017, 137, 25-30.   | 3.2 | 47        |
| 24 | Autoignition and combustion characteristics of sodium borohydride-based non-toxic hypergolic fuel droplet at elevated temperatures. <i>Combustion and Flame</i> , 2017, 181, 149-156.   | 5.2 | 22        |
| 25 | Experimental analysis of hydrogen peroxide film-cooling method for nontoxic hypergolic thruster. <i>Aerospace Science and Technology</i> , 2017, 71, 751-762.   | 4.8 | 13        |
| 26 | Ground simulation of a hybrid power strategy using fuel cells and solar cells for high-endurance unmanned aerial vehicles. <i>Energy</i> , 2017, 141, 1547-1554.  | 8.8 | 24        |
| 27 | Fabrication of a liquid monopropellant microthruster with built-in regenerative micro-cooling channels. <i>Sensors and Actuators A: Physical</i> , 2017, 263, 332-340.  | 4.1 | 19        |
| 28 | Effect of H <sub>2</sub> O <sub>2</sub> injection patterns on catalyst bed characteristics. <i>Acta Astronautica</i> , 2017, 130, 75-83.  | 3.2 | 14        |
| 29 | Simple catalyst bed sizing of a NaBH <sub>4</sub> hydrogen generator with fast startup for small unmanned aerial vehicles. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 1018-1026.                             | 7.1 | 26        |
| 30 | The proton exchange membrane fuel cell systems using methanolysis of sodium borohydride as a hydrogen source with cobalt catalysts. <i>International Journal of Green Energy</i> , 2016, 13, 1224-1231.                       | 3.8 | 24        |
| 31 | Transient behavior of proton exchange membrane fuel cells over a cobalt-phosphorous/nickel foam catalyst with sodium borohydride. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 524-533.                        | 7.1 | 15        |
| 32 | Compact design of oxidative steam reforming of methanol assisted by blending hydrogen peroxide. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 12697-12704.  | 7.1 | 9         |
| 33 | Performance Evaluation of Small-scale Liquid Pump using a Radial Turbine with H <sub>2</sub> /O <sub>2</sub> Gas Generator. <i>Transactions of the Japan Society for Aeronautical and Space Sciences</i> , 2015, 58, 253-260. | 0.7 | 3         |
| 34 | Lanthanum doping for longevity of alumina catalyst bed in hydrogen peroxide thruster. <i>Aerospace Science and Technology</i> , 2015, 46, 197-203.  | 4.8 | 29        |
| 35 | Sodium borohydride hydrogen generator using Co-P/Ni foam catalysts for 200W proton exchange membrane fuel cell system. <i>Energy</i> , 2015, 90, 1163-1170.   | 8.8 | 42        |
| 36 | Lightweight Magnesium Bipolar Plates of Direct NaBH <sub>4</sub> /H <sub>2</sub> O <sub>2</sub> Fuel Cell for AIP Application. <i>International Journal of Turbo and Jet Engines</i> , 2015, 32, .                            | 0.7 | 1         |

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|----|--|-----|-----------|
| 37 | Estimating the energy density of direct borohydride-hydrogen peroxide fuel cell systems for air-independent propulsion applications. <i>Energy</i> , 2015, 90, 980-986.  | 8.8 | 16        |
| 38 | Autoignitable and Restartable Hybrid Rockets Using Catalytic Decomposition of an Oxidizer. <i>Journal of Propulsion and Power</i> , 2014, 30, 514-518.   | 2.2 | 19        |
| 39 | Micro Shear-Stress Sensor for Separation Detection During Flight of Unmanned Aerial Vehicles Using a Strain Gauge. <i>IEEE Sensors Journal</i> , 2014, 14, 1012-1019.  | 4.7 | 7         |
| 40 | Stall inception and warning in a single-stage transonic axial compressor with axial skewed slot casing treatment. <i>Journal of Mechanical Science and Technology</i> , 2014, 28, 3569-3581.   | 1.5 | 8         |
| 41 | Performance evaluation of direct borohydride-hydrogen peroxide fuel cells with electrocatalysts supported on multiwalled carbon nanotubes. <i>Energy</i> , 2014, 76, 911-919.  | 8.8 | 22        |
| 42 | Electrocatalysts supported on multiwalled carbon nanotubes for direct borohydride-hydrogen peroxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 6977-6986.  | 7.1 | 31        |
| 43 | Effect of heat treatment of electrodes on direct borohydride-hydrogen peroxide fuel cell performance. <i>Journal of Power Sources</i> , 2014, 268, 63-68.  | 7.8 | 13        |
| 44 | Performance evaluation of hydrogen generation system with electroless-deposited Co-P/Ni foam catalyst for NaBH <sub>4</sub> hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 6425-6435.   | 7.1 | 41        |
| 45 | Effect of Unsteadiness and Nozzle Asymmetry on Thrust of a Microthruster. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2012, 16, 50-63.  | 2.6 | 3         |
| 46 | Chugging Instability of H <sub>2</sub> O <sub>2</sub> Monopropellant Thrusters with Reactor Aspect Ratio and Pressures. <i>Journal of Propulsion and Power</i> , 2011, 27, 422-427.  | 2.2 | 40        |
| 47 | Optimum Nozzle Angle of a Micro Solid-Propellant Thruster. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2011, 15, 165-178.   | 2.6 | 9         |
| 48 | Chugging Instability of H <sub>2</sub> O <sub>2</sub> Monopropellant Thrusters with Catalyst Reactivity and Support Sizes. <i>Journal of Propulsion and Power</i> , 2011, 27, 920-924.   | 2.2 | 24        |
| 49 | Design, fabrication, and testing of MEMS solid propellant thruster array chip on glass wafer. <i>Sensors and Actuators A: Physical</i> , 2010, 157, 126-134.   | 4.1 | 53        |
| 50 | Hydrogen Peroxide-Based Gas Generator Design and Performance Testing as an Aircraft Emergency Power Unit. <i>Journal of Engineering for Gas Turbines and Power</i> , 2010, 132, .  | 1.1 | 2         |
| 51 | Design and performance evaluation of a bellows-type mixture ratio stabilizer for a liquid bipropellant rocket engine. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2009, 223, 723-731. | 2.1 | 1         |
| 52 | Mixing efficiency of a multilamination micromixer with consecutive recirculation zones. <i>Chemical Engineering Science</i> , 2009, 64, 1223-1231.   | 3.8 | 37        |
| 53 | Microcatalytic Combustion of H <sub>2</sub> on Pt/Al <sub>2</sub> O <sub>3</sub> -Coated Nickel Foam. <i>Combustion Science and Technology</i> , 2009, 181, 211-225.   | 2.3 | 11        |
| 54 | Scaling and Evaluation of Pt/Al <sub>2</sub> O <sub>3</sub> Catalytic Reactor for Hydrogen Peroxide Monopropellant Thruster. <i>Journal of Propulsion and Power</i> , 2009, 25, 1041-1045.   | 2.2 | 59        |

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|----|---|------|-----------|
| 55 | Integrated fabrication of a micro methanol reformer and a hydrogen peroxide heat source. , 2007, , .  |      | 0         |
| 56 | Catalyst preparation for fabrication of a MEMS fuel reformer. Chemical Engineering Journal, 2006, 123, 93-102.  | 12.7 | 31        |
| 57 | NUMERICAL SIMULATION OF FLAME PROPAGATION NEAR EXTINCTION CONDITION IN A MICRO COMBUSTOR. Microscale Thermophysical Engineering, 2004, 8, 71-89.      | 1.2  | 10        |
| 58 | Statistical analysis of the fractal nature of turbulent premixed flames. Combustion Science and Technology, 2003, 175, 1317-1332.                     | 2.3  | 2         |
| 59 | A MEMS Piston-Cylinder Device Actuated by Combustion. Journal of Heat Transfer, 2003, 125, 487-493.   | 2.1  | 11        |
| 60 | The Effect of Volume Expansion on the Propagation of Wrinkled Laminar Premixed Flame. Combustion Science and Technology, 1999, 146, 85-103.           | 2.3  | 1         |
| 61 | Design and fabrication of micromachined internal combustion engine as a power source for microsystems. , 0, , .                                       |      | 5         |
| 62 | Evaluation of Silver-coated Magnesium Bipolar Plate for Lightweight PEM Fuel Cell Stack. International Journal of Green Energy, 0, , 141111165052003. | 3.8  | 4         |