

Toru Shimada

List of Publications by Year in descending order

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72
papers

538
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73
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73
docs citations

73
times ranked

258
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Special Issue “Hybrid Rocket (Volume II)” Aerospace, 2022, 9, 233. | 2.2 | 3 |
| 2 | Performance of Mixture-Ratio-Controlled Hybrid Rockets Under Uncertainties in Fuel Regression. Journal of Propulsion and Power, 2021, 37, 86-99. | 2.2 | 4 |
| 3 | Evolutions in Ballistic Data Reconstruction Techniques for Hybrid Rockets. , 2021, , . | | 0 |
| 4 | Reconstructed Ballistic Data Versus Wax Regression-Rate Intrusive Measurement in a Hybrid Rocket. Journal of Spacecraft and Rockets, 2020, 57, 1295-1308. | 1.9 | 12 |
| 5 | Prediction of Space and Time Distribution of Wax-based Fuel Regression Rate in a Hybrid Rocket. , 2020, , . | | 2 |
| 6 | Performance of Mixture-Ratio-Controlled Hybrid Rockets for Nominal Fuel Regression. Journal of Propulsion and Power, 2020, 36, 400-414. | 2.2 | 9 |
| 7 | Theoretical Investigation on Feedback Control of Hybrid Rocket Engines. Aerospace, 2019, 6, 65. | 2.2 | 11 |
| 8 | Hybrid Rocket Firing Experiments at Various Axial-Tangential Oxidizer-Flow-Rate Ratios. Journal of Propulsion and Power, 2019, 35, 94-108. | 2.2 | 16 |
| 9 | Elucidation of Influence of Fuels on Hybrid Rocket Using Visualization of Design-Space Structure. Computational Methods in Applied Sciences (Springer), 2019, , 473-488. | 0.3 | 0 |
| 10 | Genetic Algorithm Applied to Design Knowledge Discovery of Launch Vehicle Using Clustered Hybrid Rocket. Computational Methods in Applied Sciences (Springer), 2019, , 519-535. | 0.3 | 0 |
| 11 | A theoretical study on throttle ranges of O/F controllable hybrid rocket propulsion systems. Journal of Fluid Science and Technology, 2018, 13, JFST0031-JFST0031. | 0.6 | 7 |
| 12 | Numerical Parametric Analysis of Combustion Instability in Axial-Injected Hybrid Rocket Motors. Journal of Propulsion and Power, 2018, 34, 1542-1552. | 2.2 | 11 |
| 13 | Essentially Non-explosive Propulsion Paving a Way for Fail-Safe Space Transportation. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2018, 16, 1-8. | 0.2 | 6 |
| 14 | Effective Operations of Extinction-Reignition with Simple Control of Oxidizer Flux on a Single-Stage Sounding Hybrid Rocket. , 2017, , . | | 1 |
| 15 | Performance and Regression Rate Characteristics of 5-kN Swirling-Oxidizer-Flow-Type Hybrid Rocket Engine. Journal of Propulsion and Power, 2017, 33, 891-901. | 2.2 | 23 |
| 16 | Simple control of oxidizer flux for efficient extinction-reignition on a single-stage hybrid rocket. Aerospace Science and Technology, 2017, 71, 109-118. | 4.8 | 3 |
| 17 | Design Methodology of a Hybrid Rocket-Powered Launch Vehicle for Suborbital Flight. Journal of Aerospace Engineering, 2017, 30, . | 1.4 | 7 |
| 18 | Effects of O/F Shifts on Flight Performances of Vertically Launched Hybrid Sounding Rockets. , 2017, , . | | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | An Introduction to Energetic Materials for Propulsion. Springer Aerospace Technology, 2017, , 3-59. | 0.3 | 8 |
| 20 | Hybrid Propulsion Technology Development in Japan for Economic Space Launch. Springer Aerospace Technology, 2017, , 545-575. | 0.3 | 6 |
| 21 | Comparison of Chemical Propulsion Solutions for Large Space Debris Active Removal. Springer Aerospace Technology, 2017, , 985-1011. | 0.3 | 3 |
| 22 | Design optimization of launch vehicle concept using cluster hybrid rocket engine for future space transportation. Journal of Fluid Science and Technology, 2016, 11, JFST0003-JFST0003. | 0.6 | 1 |
| 23 | Extinction-ignition superiority in a single-stage sounding hybrid rocket. Aerospace Science and Technology, 2016, 58, 437-444. | 4.8 | 8 |
| 24 | Quasi 1-D Numerical Analysis of Combustion Instability in Hybrid Rocket Motor Incorporating Boundary Layer Lags. , 2016, , . | | 4 |
| 25 | Static Burning Tests on a Bread Board Model of Altering-intensity Swirling-Oxidizer-Flow-Type Hybrid Rocket Engine. , 2016, , . | | 5 |
| 26 | Ascendancy of Extinction-Reignition on Single-Stage Hybrid Sounding Rocket in View of Fuels. , 2016, , . | | 0 |
| 27 | EFFECT OF OXIDIZER PARTICLE ORIENTATION ON BURNING RATES OF COMPOSITE PROPELLANTS. International Journal of Energetic Materials and Chemical Propulsion, 2016, 15, 285-304. | 0.3 | 0 |
| 28 | Flight Performance Simulations of Vertical Launched Sounding Rockets Using Altering-Intensity Swirling-Oxidizer-Flow-Type Hybrid Motors. , 2015, , . | | 7 |
| 29 | Multidisciplinary Design Exploration for Sounding Launch Vehicle using Hybrid Rocket Engine in View of Ballistic Performance. International Journal of Turbo and Jet Engines, 2015, 32, . | 0.7 | 3 |
| 30 | Conceptual Design of Single-stage Rocket Using Hybrid Rocket by Means of Genetic Algorithm. Procedia Engineering, 2015, 99, 198-207. | 1.2 | 9 |
| 31 | Liquid Films Instability Analysis of Liquefying Hybrid Rocket Fuels Under Supercritical Conditions. AIAA Journal, 2015, 53, 1578-1589. | 2.6 | 19 |
| 32 | Numerical analysis of multi-parallelized swirling flow inside a circular pipe. Journal of Mechanical Science and Technology, 2015, 29, 951-962. | 1.5 | 1 |
| 33 | Evolutionary algorithm applied to ballistic launch vehicle design using hybrid rocket engine evaluated by enhanced flight simulation. , 2015, , . | | 0 |
| 34 | Structurization of Design Space for Launch Vehicle with Hybrid Rocket Engine Using Stratum-Type Association Analysis. Proceedings in Adaptation, Learning and Optimization, 2015, , 509-521. | 1.6 | 0 |
| 35 | Combined Analysis of Reactive Flow and Heat Transfer for Hybrid Rocket Design Engineering. , 2014, , . | | 2 |
| 36 | Visualization of Flames in Combustion Chamber of Hybrid Rocket Engine with Multi-Section Swirl Injection Method. , 2014, , . | | 6 |

| # | ARTICLE | IF | CITATIONS |
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| 37 | Numerical Simulations of Combustive Flows in a Swirling-Oxidizer-Flow-Type Hybrid Rocket. , 2014, , . | | 16 |
| 38 | Active debris multi-removal mission concept based on hybrid propulsion. Acta Astronautica, 2014, 103, 26-35. | 3.2 | 24 |
| 39 | Diversity of design knowledge for launch vehicle in view of fuels on hybrid rocket engine. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2014, 8, JAMDSM0023-JAMDSM0023. | 0.7 | 14 |
| 40 | Conceptual design: Dependence of parameterization on design performance of three-stage hybrid rocket. Journal of Fluid Science and Technology, 2014, 9, JFST0071-JFST0071. | 0.6 | 3 |
| 41 | A LINEAR STABILITY ANALYSIS OF OSCILLATORY COMBUSTION INDUCED BY COMBUSTION TIME DELAYS OF LIQUID OXIDIZER IN HYBRID ROCKET MOTORS. International Journal of Energetic Materials and Chemical Propulsion, 2014, 13, 83-96. | 0.3 | 0 |
| 42 | Burning rate anomaly of composite propellant grains. Combustion, Explosion and Shock Waves, 2013, 49, 583-592. | 0.8 | 5 |
| 43 | Model of Hybrid Rocket Combustion in Classical Hybrid Rocket Motors. , 2013, , . | | 0 |
| 44 | Conceptual Design of Single-Stage Launch Vehicle with Hybrid Rocket Engine for Scientific Observation Using Design Informatics. Journal of Space Engineering, 2013, 6, 15-27. | 0.8 | 13 |
| 45 | Low-Frequency Feed-System-Coupled Combustion Instability in Hybrid Rocket Motors. Journal of Thermal Science and Technology, 2013, 8, 380-394. | 1.1 | 1 |
| 46 | A Study on Performance Improvement of Paraffin Fueled Hybrid Rocket Engines with Multi-Section Swirl Injection Method. , 2013, , . | | 5 |
| 47 | Large Eddy Simulation of Swirling Combustion Flow with Wall Fuel Blowing modeled for Hybrid Rocket Engines. , 2013, , . | | 1 |
| 48 | Effects of Multi-Section Swirl Injection Method on Fuel Regression Rate of High Density Polyethylene Fueled Hybrid Rocket Engine. , 2013, , . | | 4 |
| 49 | Validation with experiments on simplified numerical prediction of hybrid rocket internal ballistics. , 2012, , . | | 1 |
| 50 | On assessment of numerical methods for diffusion-combustion flow with fast chemistry. , 2012, , . | | 0 |
| 51 | A Study of Hybrid Rockets with Multi-Section Swirl Injection Method. , 2012, , . | | 4 |
| 52 | Solid-Fuel Regression Rate for Standard-Flow Hybrid Rocket Motors. Journal of Thermal Science and Technology, 2012, 7, 387-398. | 1.1 | 2 |
| 53 | Computational fluid dynamics and frequency-dependent finite-difference time-domain method coupling for the interaction between microwaves and plasma in rocket plumes. Physics of Plasmas, 2012, 19, . | 1.9 | 12 |
| 54 | Multi-Stage Hybrid Rocket Conceptual Design for Micro-Satellites Launch using Genetic Algorithm. Transactions of the Japan Society for Aeronautical and Space Sciences, 2012, 55, 229-236. | 0.7 | 15 |

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|----|--|-----|-----------|
| 55 | CHARACTERISTICS OF CHEMICALLY MODIFIED AND NANOCOMPOSITE POLYMERS AS NOVEL FUELS FOR HYBRID ROCKET PROPULSION. International Journal of Energetic Materials and Chemical Propulsion, 2012, 11, 549-566. | 0.3 | 2 |
| 56 | Correlation of Midweb Anomaly with Microstructure of Composite Propellant Containing High Amount of Aluminum. , 2011, , . | | 2 |
| 57 | Visualization and Emission Spectra of Flames in Combustion Chamber of Swirling-Oxidizer-Flow-Type Hybrid Rocket Engines. Journal of Thermal Science and Technology, 2011, 6, 268-277. | 1.1 | 17 |
| 58 | Polymer Combustion as a Basis for Hybrid Propulsion: A Comprehensive Review and New Numerical Approaches. Energies, 2011, 4, 1779-1839. | 3.1 | 17 |
| 59 | Solid propulsion for space applications: An updated roadmap. Acta Astronautica, 2010, 66, 201-219. | 3.2 | 77 |
| 60 | Advanced Computer Science on Internal Ballistics of Solid Rocket Motors. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2010, 8, Pa_29-Pa_37. | 0.2 | 3 |
| 61 | Experimental Investigation on Microwave Interference in Full-Scale Solid Rocket Exhaust. Journal of Spacecraft and Rockets, 2010, 47, 627-633. | 1.9 | 14 |
| 62 | Correlation of Midweb Anomaly with Microstructure of Composite Propellant. , 2010, , . | | 0 |
| 63 | Numerical Investigation of Roll Torque Induced by Solid Rocket Motor Internal Flow. Journal of Propulsion and Power, 2009, 25, 1300-1310. | 2.2 | 5 |
| 64 | EXPERIMENTAL STUDY ON MIDWEB ANOMALY OF COMPOSITE PROPELLANT GRAINS. International Journal of Energetic Materials and Chemical Propulsion, 2009, 8, 147-158. | 0.3 | 4 |
| 65 | COMBUSTION MECHANISM OF TETRA-OL GLYCIDYL AZIDE POLYMER AND ITS APPLICATION TO HYBRID ROCKETS. International Journal of Energetic Materials and Chemical Propulsion, 2009, 8, 555-570. | 0.3 | 3 |
| 66 | Numerical Investigation of Roll Torque Induced by Solid Rocket Motor Internal Flow. , 2008, , . | | 1 |
| 67 | Stability Analysis of Solid Rocket Motor Combustion by Computational Fluid Dynamics. AIAA Journal, 2008, 46, 947-957. | 2.6 | 8 |
| 68 | Flow Inside a Solid Rocket Motor with Relation to Nozzle Inlet Ablation. AIAA Journal, 2007, 45, 1324-1332. | 2.6 | 25 |
| 69 | X-ray visualization measurement of slurry flow in solid propellant casting. Flow Measurement and Instrumentation, 2007, 18, 235-240. | 2.0 | 14 |
| 70 | Evaluation of Ablation and Longitudinal Vortices in Solid Rocket Motor by Computational Fluid Dynamics. , 2006, , . | | 8 |
| 71 | Flow visualization of slurry fluid using two-directional X-ray photograph. Journal of the Visualization Society of Japan, 2006, 26, 197-198. | 0.0 | 2 |
| 72 | A test of equivalence of the variable- ϵ hard-sphere and inverse- ϵ power-law models in the direct-simulation Monte Carlo method. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1835-1837. | 1.6 | 15 |