Jun-tao Chang

List of Publications by Year
in descending order

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151	3,799	126901	206102
papers	citations	33 h-index	48 g-index

152	152	152	898
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recent research progress on unstart mechanism, detection and control of hypersonic inlet. Progress in Aerospace Sciences, 2017, 89, 1-22.	12.1	175
2	Research progress on strut-equipped supersonic combustors for scramjet application. Progress in Aerospace Sciences, 2018, 103, 1-30.	12.1	149
3	One-day-ahead probabilistic wind speed forecast based on optimized numerical weather prediction data. Energy Conversion and Management, 2018, 164, 560-569.	9.2	105
4	Switching control of thrust regulation and inlet buzz protection for ducted rocket. Acta Astronautica, 2010, 67, 764-773.	3.2	69
5	Novel Oscillatory Patterns of Hypersonic Inlet Buzz. Journal of Propulsion and Power, 2012, 28, 1214-1221.	2.2	65
6	Short-term average wind speed and turbulent standard deviation forecasts based on one-dimensional convolutional neural network and the integrate method for probabilistic framework. Energy Conversion and Management, 2020, 203, 112239.	9.2	64
7	Investigation of flame establishment and stabilization mechanism in a kerosene fueled supersonic combustor equipped with a thin strut. Aerospace Science and Technology, 2017, 70, 152-160.	4.8	63
8	Oscillation of the shock train in an isolator with incident shocks. Physics of Fluids, 2018, 30, .	4.0	63
9	Prediction dynamic model of shock train with complex background waves. Physics of Fluids, 2017, 29, .	4.0	62
10	Investigations on flame liftoff characteristics in liquid-kerosene fueled supersonic combustor equipped with thin strut. Aerospace Science and Technology, 2019, 84, 686-697.	4.8	60
11	Dynamic Characteristics of Combustion Mode Transitions in a Strut-Based Scramjet Combustor Model. Journal of Propulsion and Power, 2013, 29, 1244-1248.	2.2	59
12	A deep learning approach for the velocity field prediction in a scramjet isolator. Physics of Fluids, 2021, 33, .	4.0	58
13	Mechanism and Prediction for Occurrence of Shock-Train Sharp Forward Movement. AIAA Journal, 2016, 54, 1403-1412.	2.6	56
14	Analysis of combustion mode and operating route for hydrogen fueled scramjet engine. International Journal of Hydrogen Energy, 2013, 38, 5928-5935.	7.1	50
15	Low-frequency unsteadiness of shock-wave/boundary-layer interaction in an isolator with background waves. Physics of Fluids, 2020, 32, .	4.0	47
16	Maximum thrust for the rocket-ejector mode of theÂhydrogen fueled rocket-based combined cycle engine. International Journal of Hydrogen Energy, 2015, 40, 3771-3776.	7.1	46
17	Experimental study of a flush wall scramjet combustor equipped with strut/wall fuel injection. Acta Astronautica, 2014, 104, 84-90.	3.2	45
18	Flowfield Reconstruction and Shock Train Leading Edge Detection in Scramjet Isolators. AIAA Journal, 2020, 58, 4068-4080.	2.6	45

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19	Experimental and numerical investigation on hysteresis characteristics and formation mechanism for a variable geometry dual-mode combustor. Aerospace Science and Technology, 2017, 67, 96-104.	4.8	44
20	Flow field characteristics analysis and combustion modes classification for a strut/cavity dual-mode combustor. Acta Astronautica, 2017, 137, 44-51.	3.2	43
21	Unstart/restart hysteresis characteristics analysis of an overâ€“under TBCC inlet caused by backpressure and splitter. Aerospace Science and Technology, 2018, 72, 418-425.	4.8	43
22	Optimal Classification Criterions of Hypersonic Inlet Start/Unstart. Journal of Propulsion and Power, 2007, 23, 310-316.	2.2	42
23	Local and global flame characteristics in a liquid kerosene fueled supersonic combustor equipped with a thin strut. Aerospace Science and Technology, 2018, 76, 49-57.	4.8	42
24	Numerical and experimental investigation of improving combustion performance of variable geometry dual-mode combustor. Aerospace Science and Technology, 2017, 64, 213-222.	4.8	41
25	Mechanism Study on Local Unstart of Hypersonic Inlet at High Mach Number. AIAA Journal, 2015, 53, 3102-3112.	2.6	40
26	Thermodynamic analysis on specific thrust of the hydrocarbon fueled scramjet. Energy, 2014, 76, 552-558.	8.8	39
27	Hysteresis phenomenon of hypersonic inlet at high Mach number. Acta Astronautica, 2016, 128, 657-668.	3.2	39
28	A mechanism of combustion mode transition forÂhydrogen fueled scramjet. International Journal of Hydrogen Energy, 2014, 39, 9791-9797.	7.1	37
29	Unstart Margin Characterization Method of Scramjet Considering Isolatorâ€“Combustor Interactions. AIAA Journal, 2015, 53, 493-500.	2.6	37
30	Combustion stabilizations in a liquid kerosene fueled supersonic combustor equipped with an integrated pilot strut. Aerospace Science and Technology, 2018, 77, 83-91.	4.8	37
31	Flame Transition in Dual-Mode Scramjet Combustor with Oxygen Piloted Ignition. Journal of Propulsion and Power, 2014, 30, 1103-1107.	2.2	35
32	Flame propagation and flashback characteristics in a kerosene fueled supersonic combustor equipped with strut/wall combined fuel injectors. Aerospace Science and Technology, 2019, 93, 105303.	4.8	35
33	Flame oscillation characteristics in a kerosene fueled dual mode combustor equipped with thin strut flameholder. Acta Astronautica, 2019, 161, 222-233.	3.2	35
34	Mathematical Model of Shock-Train Path with Complex Background Waves. Journal of Propulsion and Power, 2017, 33, 468-478.	2.2	34
35	Ignition characteristics in a thin strut-equipped dual mode combustor fueled with liquid kerosene. Acta Astronautica, 2019, 161, 125-138.	3.2	34
36	Recent progress of machine learning in flow modeling and active flow control. Chinese Journal of Aeronautics, 2022, 35, 14-44.	5.3	34

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37	Mechanism of shock train rapid motion induced by variation of attack angle. Acta Astronautica, 2017, 140, 18-26.	3.2	33
38	Unstart margin control of hypersonic inlets. Acta Astronautica, 2010, 66, 78-87.	3.2	32
39	Operation pattern classification of hypersonic inlets. Acta Astronautica, 2009, 65, 457-466.	3.2	31
40	Nonlinear characteristics and detection of combustion modes for a hydrocarbon fueled scramjet. Acta Astronautica, 2015, 110, 89-98.	3.2	31
41	Numerical study on hypersonic nozzle-inlet starting characteristics in a shock tunnel. Acta Astronautica, 2017, 130, 167-179.	3.2	31
42	Trajectory optimization for a TBCC-powered supersonic vehicle with transition thrust pinch. Aerospace Science and Technology, 2019, 84, 214-222.	4.8	31
43	Effects of wall cooling on performance parameters of hypersonic inlets. Acta Astronautica, 2009, 65, 467-476.	3.2	30
44	State-Based Switching Control Strategy with Application to Aeroengine Safety Protection. Journal of Aerospace Engineering, 2015, 28, .	1.4	30
45	Richtmyer-Meshkov Instability Induced Mixing Enhancement in the Scramjet Combustor with a Central Strut. Advances in Mechanical Engineering, 2014, 6, 614189.	1.6	29
46	Experimental investigation of mechanism and limits for shock train rapid forward movement. Experimental Thermal and Fluid Science, 2018, 98, 336-345.	2.7	29
47	Numerical investigation on the forced oscillation of shock train in hypersonic inlet with translating cowl. Aerospace Science and Technology, 2019, 87, 311-322.	4.8	29
48	Control-oriented unsteady one-dimensional model for a hydrocarbon regeneratively-cooled scramjet engine. Aerospace Science and Technology, 2019, 85, 158-170.	4.8	29
49	Recent research progress on airbreathing aero-engine control algorithm. Propulsion and Power Research, 2022, 11, 1-57.	4.3	29
50	Mathematical modeling and rapid recognition of hypersonic inlet buzz. Aerospace Science and Technology, 2012, 23, 172-178.	4.8	28
51	Experimental Investigation of Hysteresis Phenomenon for Scramjet Engine. AIAA Journal, 2014, 52, 447-451.	2.6	28
52	Mathematical modeling and characteristic analysis for over-under turbine based combined cycle engine. Acta Astronautica, 2018, 148, 141-152.	3.2	28
53	Behavior and flow mechanism of shock train self-excited oscillation influenced by background waves. Acta Astronautica, 2020, 166, 29-40.	3.2	28
54	Experimental investigation of shock train behavior in a supersonic isolator. Physics of Fluids, 2021, 33, .	4.0	28

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55	An efficient deep learning framework to reconstruct the flow field sequences of the supersonic cascade channel. Physics of Fluids, 2021, 33, .	4.0	28
56	Combustion characteristic using O₂-pilot strut in a liquid-kerosene-fueled strut-based dual-mode scramjet. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2013, 227, 1870-1880.	1.3	27
57	Numerical investigation of the impact of asymmetric fuel injection on shock train characteristics. Acta Astronautica, 2014, 105, 66-74.	3.2	27
58	Backpressure unstart detection for a scramjet inlet based on information fusion. Acta Astronautica, 2014, 95, 1-14.	3.2	27
59	Effect of Mach number and equivalence ratio on the pressure rising variation during combustion mode transition in a dual-mode combustor. Aerospace Science and Technology, 2018, 72, 516-524.	4.8	27
60	Numerical studies for performance improvement of a variable geometry dual mode combustor by optimizing deflection angle. Aerospace Science and Technology, 2017, 68, 320-330.	4.8	26
61	Deep learning methods for super-resolution reconstruction of temperature fields in a supersonic combustor. AIP Advances, 2020, 10, .	1.3	26
62	Pressure rising slope variation accompanying with combustion mode transition in a dual-mode combustor. Aerospace Science and Technology, 2017, 68, 370-379.	4.8	25
63	Experimental study on the forced oscillation of shock train in an isolator with background waves. Aerospace Science and Technology, 2020, 106, 106129.	4.8	25
64	Modeling and analysis for integrated airframe/propulsion control of vehicles during mode transition of over-under Turbine-Based-Combined-Cycle engines. Aerospace Science and Technology, 2019, 95, 105462.	4.8	24
65	Thrust control system design of ducted rockets. Acta Astronautica, 2011, 69, 86-95.	3.2	23
66	Combustion stabilization based on a center flame strut in a liquid kerosene fueled supersonic combustor. Journal of Thermal Science, 2013, 22, 497-504.	1.9	23
67	Shock train behavior affected by continuous Mach number variation of incoming flow. Acta Astronautica, 2020, 177, 652-665.	3.2	23
68	Modeling and analysis of windmilling operation during mode transition of a turbine-based-combined cycle engine. Aerospace Science and Technology, 2021, 109, 106423.	4.8	23
69	Effect of structural factors on maximum aerodynamic heat flux of strut leading surface. Applied Thermal Engineering, 2014, 69, 188-198.	6.0	22
70	Flow field reconstruction and prediction of the supersonic cascade channel based on a symmetry neural network under complex and variable conditions. AIP Advances, 2020, 10, 065116.	1.3	22
71	Short-term probabilistic predictions of wind multi-parameter based on one-dimensional convolutional neural network with attention mechanism and multivariate copula distribution estimation. Energy, 2021, 234, 121306.	8.8	22
72	Indirect measurement method of inner wall temperature of scramjet with a state observer. Acta Astronautica, 2015, 115, 330-337.	3.2	21

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73	Effect of continuous Mach number variation of incoming flow on ramâ€“scram transition in a dual-mode combustor. Aerospace Science and Technology, 2018, 76, 433-441.	4.8	21
74	Oscillation of the shock train under synchronous variation of incoming Mach number and backpressure. Physics of Fluids, 2022, 34, .	4.0	21
75	Classifier utility modeling and analysis of hypersonic inlet start/unstart considering training data costs. Acta Astronautica, 2011, 69, 841-847.	3.2	20
76	Robust asynchronous bumpless transfer for switched linear systems. International Journal of Control, 2015, 88, 2433-2443.	1.9	20
77	Switching control of thrust regulation and inlet unstart protection for scramjet engine based on Min strategy. Aerospace Science and Technology, 2015, 40, 96-103.	4.8	20
78	Flame Interaction Characteristics in Scramjet Combustor Equipped with Strut/Wall Combined Fuel Injectors. Combustion Science and Technology, 2020, 192, 1863-1886.	2.3	20
79	Flowing residence characteristics in a dual-mode scramjet combustor equipped with strut flame holder. Aerospace Science and Technology, 2020, 99, 105718.	4.8	20
80	Periodic forcing of a shock train in a scramjet inlet-isolator at overspeed condition. Acta Astronautica, 2018, 143, 244-254.	3.2	19
81	Multi-objective regulating and protecting control for ducted rocket using a bumpless transfer scheme. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2013, 227, 311-325.	1.3	18
82	Effects of upstream strut on the combustion of liquid kerosene in a model cavity scramjet. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2014, 228, 2323-2328.	1.3	18
83	Combustion characteristics of a dual-mode scramjet injecting liquid kerosene by multiple struts. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2015, 229, 983-992.	1.3	18
84	A model of mode transition logic in dual-mode scramjet engines. Aerospace Science and Technology, 2016, 49, 173-184.	4.8	18
85	Effect of heat release on movement characteristics of shock train in an isolator. Acta Astronautica, 2017, 133, 185-194.	3.2	18
86	Investigation of performance and mode transition in a variable divergence ratio dual-mode combustor. Aerospace Science and Technology, 2018, 80, 496-507.	4.8	18
87	Path dependence characteristic of shock train in a 2D hypersonic inlet with variable background waves. Aerospace Science and Technology, 2019, 86, 650-658.	4.8	18
88	Inversion and reconstruction of supersonic cascade passage flow field based on a model comprising transposed network and residual network. Physics of Fluids, 2019, 31, .	4.0	18
89	Buzz evolution process investigation of a two-ramp inlet with translating cowl. Aerospace Science and Technology, 2019, 84, 712-723.	4.8	18
90	Data-driven super-resolution reconstruction of supersonic flow field by convolutional neural networks. AIP Advances, 2021, 11, .	1.3	18

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91	Effect of Fuel Injection Allocation on the Combustion Characteristics of a Cavity-Strut Model Scramjet. Journal of Aerospace Engineering, 2015, 28, .	1.4	17
92	Investigation of hypersonic inlet pulse-starting characteristics at high Mach number. Aerospace Science and Technology, 2016, 58, 427-436.	4.8	17
93	Numerical Investigation of Local Resistance to Backpressure in Hypersonic Inlet with Suction. Journal of Propulsion and Power, 2016, 32, 1531-1543.	2.2	17
94	Analysis of aerodynamic/propulsive couplings during mode transition of over-under turbine-based-combined-cycle engines. Aerospace Science and Technology, 2020, 99, 105773.	4.8	17
95	Investigation of shock wave control by suction in a supersonic cascade. Aerospace Science and Technology, 2021, 108, 106382.	4.8	17
96	Research on flame prediction in a scramjet combustor using a data-driven model. Physics of Fluids, 2022, 34, .	4.0	17
97	Closed-loop control of shock train in inlet-isolator with incident shocks. Experimental Thermal and Fluid Science, 2019, 103, 355-363.	2.7	16
98	Research on time sequence prediction of the flow field structure of supersonic cascade channels in wide range based on artificial neural network. Physics of Fluids, 2022, 34, .	4.0	15
99	Efficient Prediction of Supersonic Flowfield in an Isolator Based on Pressure Sequence. AIAA Journal, 2022, 60, 2826-2835.	2.6	15
100	Control-oriented modeling and real-time simulation method for a dual-mode scramjet combustor. Acta Astronautica, 2018, 153, 82-94.	3.2	14
101	Experimental investigation of the throttling process and oscillation mechanism in a supersonic cascade. AIP Advances, 2019, 9, 055103.	1.3	14
102	Ignition Characteristics of a Liquid-Kerosene-Fueled Scramjet during Air Throttling Combined with a Gas Generator. Journal of Aerospace Engineering, 2014, 27, 06014003.	1.4	13
103	Performance uncertainty propagation analysis for control-oriented model of a turbine-based combined cycle engine. Acta Astronautica, 2018, 153, 39-49.	3.2	13
104	Multi-objective coordinated control of regeneratively-cooled scramjet engine with two-stage kerosene injection. Aerospace Science and Technology, 2019, 90, 59-69.	4.8	13
105	Micro-Ramp Control for Shock Train Structure and Oscillation. AIAA Journal, 2021, 59, 4881-4904.	2.6	13
106	Effects of boundaryâ€layers bleeding on performance parameters of hypersonic inlets. Aircraft Engineering and Aerospace Technology, 2009, 81, 204-211.	0.8	12
107	Switching control of thrust regulation and inlet unstart protection for scramjet engine based on strategy of integral initial values resetting. Aerospace Science and Technology, 2015, 45, 484-489.	4.8	12
108	Real-time unstart prediction and detection of hypersonic inlet based on recursive Fourier transform. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2015, 229, 772-778.	1.3	12

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109	Numerical investigation on behaviors of shock train in a hypersonic inlet with translating cowl. Acta Astronautica, 2018, 152, 682-691.	3.2	12
110	Study on influencing factors of combustion mode transition boundary for a scramjet engine based on one-dimensional model. Aerospace Science and Technology, 2020, 96, 105590.	4.8	12
111	Preliminary investigation of limits of shock train jumps in a hypersonic inlet-isolator. European Journal of Mechanics, B/Fluids, 2018, 72, 664-675.	2.5	11
112	Instability of shock train behaviour with incident shocks. Journal of Fluid Mechanics, 2021, 907, .	3.4	11
113	Prediction model of flow field in an isolator over various operating conditions. Aerospace Science and Technology, 2021, 111, 106576.	4.8	11
114	New Method for Solving One-Dimensional Transonic Reacting Flows of a Scramjet Combustor. Journal of Propulsion and Power, 2016, 32, 1403-1412.	2.2	10
115	Scramjet Isolator Shock-Train Leading-Edge Position Modeling Based on Equilibrium Manifold. Journal of Aerospace Engineering, 2015, 28, .	1.4	9
116	Bumpless switching control for switched systems with partial actuator failures. International Journal of Systems Science, 2016, 47, 3554-3560.	5.5	9
117	Investigations on flowfield behavior and resistance backpressure characteristics of supersonic cascade with boundary layer suction. Acta Astronautica, 2018, 152, 588-601.	3.2	9
118	Research on the operating boundary of the dual mode scramjet with a constant area combustor through thermodynamic cycle analysis. Energy, 2021, 216, 119271.	8.8	9
119	Effects of boundary-layer bleeding on unstart oscillatory flow of hypersonic inlets. Aeronautical Journal, 2010, 114, 445-450.	1.6	8
120	Evolution of subsonic and supersonic corner vortices in a supersonic cascade. Aerospace Science and Technology, 2019, 95, 105509.	4.8	8
121	Propagation of shock-wave/boundary-layer interaction unsteadiness in attached and separated flows. AIP Advances, 2020, 10, .	1.3	8
122	Relative Time scale analysis for pressure propagation during ignition process of a scramjet. Aerospace Science and Technology, 2014, 39, 206-210.	4.8	7
123	Coordinated control for regulation/protection mode-switching of ducted rockets. Acta Astronautica, 2014, 98, 138-146.	3.2	7
124	Multivariable control of regeneratively-cooled scramjet engine with two-stage kerosene injection based on Hâˆž method. Results in Engineering, 2020, 7, 100161.	5.1	7
125	Research on combustion performance optimization in scramjet combustor with strut/wall combined fuel injection scheme. Aerospace Science and Technology, 2021, 109, 106376.	4.8	7
126	Hysteretic Behaviors of Separation-Shock Driven by Backpressure in Isolator with Incident Shocks. AIAA Journal, 2021, 59, 960-971.	2.6	7

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127	Prediction model of temperature field in dual-mode combustors based on wall pressure. Acta Astronautica, 2022, 196, 73-84.	3.2	7
128	Unstart Coupling Mechanism Analysis of Multiple-Modules Hypersonic Inlet. Scientific World Journal, The, 2013, 2013, 1-10.	2.1	6
129	Influence factor analysis of performance parameter for a strut/cavity supersonic combustor. , 2015, , .		6
130	Experimental study and analysis of shock train self-excited oscillation in an isolator with background waves. Journal of Zhejiang University: Science A, 2020, 21, 614-635.	2.4	6
131	Aerodynamic performance enhancement of a variable-geometry dual-mode combustor designed by the method of characteristics. Aerospace Science and Technology, 2021, 108, 106353.	4.8	6
132	Mechanism and detection of oscillatory flow in a supersonic cascade. Acta Astronautica, 2021, 182, 77-99.	3.2	6
133	Friction-Compensation Control of Gas-Flow Regulation for Ducted Rockets Based on Adaptive Dither Method. Journal of Aerospace Engineering, 2013, 26, 715-720.	1.4	5
134	Mathematical modeling and characteristic analysis of scramjet buzz. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2014, 228, 2542-2552.	1.3	5
135	Minimization of classification samples for supercritical and subcritical patterns of supersonic inlet. Journal of Thermal Science, 2014, 23, 375-380.	1.9	5
136	Performance optimization of hypersonic inlets with pulse periodic energy addition. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2009, 223, 691-699.	1.3	4
137	Control-Oriented Modeling for Nonlinear MIMO Turbofan Engine Based on Equilibrium Manifold Expansion Model. Energies, 2021, 14, 6277.	3.1	4
138	Influence Factors of Unstart Boundary for Hypersonic Inlets. , 2008, , .		3
139	Mixing and combustion in supersonic/hypersonic flows. Journal of Zhejiang University: Science A, 2020, 21, 609-613.	2.4	3
140	Noise-Suppressed Temperature Measurement Based on Machine Learning in a Scramjet Combustor. AIAA Journal, 2021, 59, 3517-3528.	2.6	3
141	Experimental Investigation of Hysteresis Phenomenon for a Scramjet Engine. , 2013, , .		2
142	Ignition and Flame Stabilization of a Strut-Jet RBCC Combustor with Small Rocket Exhaust. Scientific World Journal, The, 2014, 2014, 1-6.	2.1	2
143	Effects of Air Vitiation on Scramjet Performance Based on Thermodynamic Cycle Analysis. Journal of Aeronautics & Aerospace Engineering, 2014, 03, .	0.1	2
144	Limit protection design: A guaranteed cost control method. , 2014, , .		2

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145	Mechanism and Prediction for Occurrence of Shock Train Sharp Forward Movement. , 2015, , .		2
146	Multi-scale DBNs regression model and its application in wind speed forecasting. , 2016, , .		2
147	Throttling process of a supersonic cascade studied by high-frequency response pressure and high-speed schlieren. Scientific Reports, 2021, 11, 13550.	3.3	2
148	Regulation/protection switching control for an aeroengine by using the L<inf>2</inf> bumpless transfer approach. , 2015, , .		1
149	Numerical Investigation on Performance of Axisymmetric Variable Geometry Scramjet Combustor Equipped with Strut Flame Holder. Combustion Science and Technology, 0, , 1-25.	2.3	1
150	Fast limit protection design: A terminal sliding mode control method. , 2014, , .		0
151	Bi-Objective Switching Control Design for a Tradeoff between Acceleration and Unstart in Hypersonic Airframe/Propulsion Models. , 2016, , .		0