Shigeru Taniguchi

List of Publications by Year in Descending Order

29 papers	536 citations	13 h-index	23 g-index
30 ext. papers	586 ext. citations	1.9 avg, IF	3.94 L-index

#	Paper	IF	Citations
29	Effect of the dynamic pressure on the similarity solution of cylindrical shock waves in a rarefied polyatomic gas. *Ricerche Di Matematica*, **2021**, 70, 195-206	0.9	
28	Similarity solution of strong spherical shock waves in a rarefied polyatomic gas based on extended thermodynamics **2019**,		1
27	A 2 (times) 2 simple model in which the sub-shock exists when the shock velocity is slower than the maximum characteristic velocity. *Ricerche Di Matematica*, **2019**, 68, 119-129	0.9	2
26	Shock Waves in Hyperbolic Systems of Nonequilibrium Thermodynamics. *Mathematics of Planet Earth*, **2019**, 167-186	0.4	6
25	On the sub-shock formation in extended thermodynamics. *International Journal of Non-Linear Mechanics*, **2018**, 99, 69-78	2.8	13
24	Shock wave structure in rarefied polyatomic gases with large relaxation time for the dynamic pressure. *Journal of Physics: Conference Series*, **2018**, 1035, 012009	0.3	6
23	Molecular extended thermodynamics: comparison between rarefied polyatomic and monatomic gas closures. *Ricerche Di Matematica*, **2017**, 66, 1-13	0.9	1
22	Galilean invariance and entropy principle for a system of balance laws of mixture type. *Atti Della Accademia Nazionale Dei Lincei, Classe Di Scienze Fisiche, Matematiche E Naturali, Rendiconti Lincei Matematica E Applicazioni*, **2017**, 28, 495-513	0.7	0
21	Monatomic gas as a singular limit of polyatomic gas in molecular extended thermodynamics with many moments. *Annals of Physics*, **2016**, 372, 83-109	2.5	18
20	Overshoot of the non-equilibrium temperature in the shock wave structure of a rarefied polyatomic gas subject to the dynamic pressure. *International Journal of Non-Linear Mechanics*, **2016**, 79, 66-75	2.8	34
19	Recent results on nonlinear extended thermodynamics of real gases with six fields Part II: shock wave structure. *Ricerche Di Matematica*, **2016**, 65, 279-288	0.9	7
18	Recent results on nonlinear extended thermodynamics of real gases with six fields Part I: general theory. *Ricerche Di Matematica*, **2016**, 65, 263-277	0.9	15
17	Non-linear extended thermodynamics of real gases with 6 fields. *International Journal of Non-Linear Mechanics*, **2015**, 72, 6-15	2.8	39
16	On the six-field model of fluids based on extended thermodynamics. *Meccanica*, **2014**, 49, 2181-2187	2.1	29
15	A Study of Linear Waves Based on Extended Thermodynamics for Rarefied Polyatomic Gases. *Acta Applicandae Mathematicae*, **2014**, 132, 15-25	1.1	17
14	Shock Wave Structure in a Rarefied Polyatomic Gas Based on Extended Thermodynamics. *Acta Applicandae Mathematicae*, **2014**, 132, 583-593	1.1	16
13	Thermodynamic theory of the shock wave structure in a rarefied polyatomic gas: beyond the Bethe-Teller theory. *Physical Review E*, **2014**, 89, 013025	2.4	63

LIST OF PUBLICATIONS

12	Effect of the dynamic pressure on the shock wave structure in a rarefied polyatomic gas. *Physics of Fluids*, **2014**, 26, 016103	4.4	57
11	Dispersion relation for sound in rarefied polyatomic gases based on extended thermodynamics. *Continuum Mechanics and Thermodynamics*, **2013**, 25, 727-737	3.5	49
10	Monatomic rarefied gas as a singular limit of polyatomic gas in extended thermodynamics. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2013**, 377, 2136-2140	2.3	43
9	Shock-Induced Phase Transitions in Systems of Hard Spheres with Attractive Interactions. *Acta Applicandae Mathematicae*, **2012**, 122, 473	1.1	2
8	Extended thermodynamics of real gases with dynamic pressure: An extension of Meixner's theory. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 2799-2803	2.3	72
7	Shock-Induced Phase Transitions from Gas Phase to Solid Phase. *Journal of the Physical Society of Japan*, **2011**, 80, 083401	1.5	4
6	Fluctuating hydrodynamics for a rarefied gas based on extended thermodynamics. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2011**, 375, 2601-2605	2.3	6
5	Shock-induced phase transition in systems of hard spheres with internal degrees of freedom. *Physical Review E*, **2010**, 81, 066307	2.4	13
4	Prediction and simulation of compressive shocks with lower perturbed density for increasing shock strength in real gases. *Physical Review E*, **2010**, 82, 036324	2.4	11
3	Non-polytropic effect on shock-induced phase transitions in a hard-sphere system. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2010**, 374, 3315-3318	2.3	7
2	Phenomenological Approach to Heat Conduction in a One-Dimensional Hard-Point Gas beyond Local Equilibrium. *Journal of the Physical Society of Japan*, **2008**, 77, 014004	1.5	2
1	Relationship between Maxwell Boundary Condition and Two Kinds of Stochastic Thermal Wall. *Journal of the Physical Society of Japan*, **2008**, 77, 124004	1.5	3