Keiichi Shirasu

List of Publications by Citations

40 papers	520 citations	11 h-index	22 g-index
43 ext. papers	625 ext. citations	4.4 avg, IF	3.83 L-index

#	Paper	IF	Citations
40	Nanotube fracture during the failure of carbon nanotube/alumina composites. *Carbon*, **2011**, 49, 3709-3716	10.4	95
39	Negative axial thermal expansion coefficient of carbon nanotubes: Experimental determination based on measurements of coefficient of thermal expansion for aligned carbon nanotube reinforced epoxy composites. *Carbon*, **2015**, 95, 904-909	10.4	70
38	Structure–property relationships in thermally-annealed multi-walled carbon nanotubes. *Carbon*, **2014**, 66, 219-226	10.4	61
37	Potential use of CNTs for production of zero thermal expansion coefficient composite materials: An experimental evaluation of axial thermal expansion coefficient of CNTs using a combination of thermal expansion and uniaxial tensile tests. *Composites Part A: Applied Science and Manufacturing*, **2017**, 95, 152-160	8.4	55
36	Tensile mechanical properties of carbon nanotube/epoxy composite fabricated by pultrusion of carbon nanotube spun yarn preform. *Composites Part A: Applied Science and Manufacturing*, **2014**, 62, 32-38	8.4	42
35	Microstructure–property relationships in pressureless-sintered carbon nanotube/alumina composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 617, 179-186	5.3	33
34	How do the mechanical properties of carbon nanotubes increase? An experimental evaluation and modeling of the engineering tensile strength of individual carbon nanotubes. *Materials Research Express*, **2019**, 6, 055047	1.7	21
33	Development of large-movements and high-force electrothermal bimorph actuators based on aligned carbon nanotube reinforced epoxy composites. *Sensors and Actuators A: Physical*, **2017**, 267, 455-463	3.9	18
32	Inclined slit-based pullout method for determining interfacial strength of multi-walled carbon nanotube–alumina composites. *Carbon*, **2014**, 78, 439-445	10.4	16
31	Effects of processing conditions on microstructure, electrical conductivity and mechanical properties of MWCNT/alumina composites prepared by flocculation. *Journal of the European Ceramic Society*, **2015**, 35, 3903-3908	6	15
30	Relationship between microstructure and mechanical properties in acid-treated carbon nanotube-reinforced alumina composites. *Journal of Materials Science*, **2015**, 50, 6688-6699	4.3	12
29	Key factors limiting carbon nanotube strength: Structural characterization and mechanical properties of multi-walled carbon nanotubes. *Mechanical Engineering Journal*, **2017**, 4, 17-00029-17-00029	0.5	11
28	Amine/epoxy stoichiometric ratio dependence of crosslinked structure and ductility in amine-cured epoxy thermosetting resins. *Journal of Applied Polymer Science*, **2021**, 138, 50542	2.9	9
27	Molecular Dynamics Simulations and Theoretical Model for Engineering Tensile Properties of Single-and Multi-Walled Carbon Nanotubes. *Nanomaterials*, **2021**, 11,	5.4	7
26	Machine Learning-Assisted High-Throughput Molecular Dynamics Simulation of High-Mechanical Performance Carbon Nanotube Structure. *Nanomaterials*, **2020**, 10,	5.4	6
25	Study on the mechanical and electrical properties of twisted CNT yarns fabricated from CNTs with various diameters. *Carbon*, **2021**, 176, 400-410	10.4	6
24	Thermoset resin curing simulation using quantum-chemical reaction path calculation and dissipative particle dynamics. *Soft Matter*, **2021**, 17, 6707-6717	3.6	6

23	Stack-coating of multishell carbon layers templated with carbon nanotubes. *Materials Today Communications*, **2019**, 21, 100608	2.5	4
22	Effect of graphitization on mechanical properties of untwisted carbon nanotube yarn and its strength development mechanism. *Transactions of the JSME (in Japanese)*, **2018**, 84, 17-00585-17-00585	0.2	4
21	Effects of high-temperature thermal annealing on properties of aligned multi-walled carbon nanotube sheets and their composites. *Composite Interfaces*, **2020**, 27, 569-586	2.3	4
20	Molecular dynamics simulation of cross-linking processes and material properties for epoxy resins using first-principle calculation combined with global reaction route mapping algorithms. *Chemical Physics Letters*, **2021**, 762, 138104	2.5	4
19	Effects of structural defects on strength and fracture properties of multi-walled carbon nanotubes. *Transactions of the JSME (in Japanese)*, **2017**, 83, 16-00283-16-00283	0.2	3
18	Uncovering the Mechanism of Size Effect on the Thermomechanical Properties of Highly Cross-Linked Epoxy Resins.. *Journal of Physical Chemistry B*, **2022**,	3.4	3
17	Effect of carbon fibres on the static and fatigue mechanical properties of fibre metal laminates. *Fatigue and Fracture of Engineering Materials and Structures*, **2020**, 43, 1461-1472	3	2
16	Enhanced tribological performance of alumina composites reinforced with acid-treated carbon nanotubes under water lubrication. *Diamond and Related Materials*, **2020**, 101, 107657	3.5	2
15	Liquid-Phase Assisted Engineering of Highly Strong SiC Composite Reinforced by Multiwalled Carbon Nanotubes. *Advanced Science*, **2020**, 7, 2002225	13.6	2
14	Mechanical and thermal expansion properties of aligned carbon nanotube reinforced epoxy composites. *Mechanical Engineering Journal*, **2019**, 6, 19-00012-19-00012	0.5	1
13	Application of Aligned Carbon Nanotube-Reinforced Polymer Composite to Electrothermal Actuator **2016**,		1
12	Preparation and performance evaluation of electrothermal actuators using aligned carbon nanotube reinforced epoxy composites. *Mechanical Engineering Journal*, **2016**, 3, 15-00607-15-00607	0.5	1
11	Evaluation of Mechanical Properties and Microstructures of Multi-Walled Carbon Nanotube/Alumina Composites Prepared by Pressureless Sintering. *Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A*, **2013**, 79, 764-768		1
10	Effect of Surface Modification of Carbon Nanotube on the Strength Properties of Carbon Nanotube/Alumina Composites and Their Fracture Process. *Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A*, **2011**, 77, 774-778		1
9	Temperature dependence of axial thermal expansion coefficient of multi-walled carbon nanotubes (A procedure based on measurements of coefficient of thermal expansion for aligned carbon nanotube/epoxy composites). *Transactions of the JSME (in Japanese)*, **2016**, 82, 16-00228-16-00228	0.2	1
8	Epitaxial pyrolytic carbon coatings templated with defective carbon nanotube cores for structural annealing and tensile property improvement. *Journal of Materials Science*,1	4.3	1
7	Experimental and numerical study on open-hole tension/compression properties of carbon-fiber-reinforced thermoplastic laminates. *Journal of Composite Materials*,002199832210968	2.7	1
6	Multiscale modeling of process-induced residual deformation on carbon-fiber-reinforced plastic laminate from quantum calculation to laminate scale finite-element analysis. *Mechanics of Materials* , **2022**, 170, 104332	3.3	1

5 Lap-shear strength and fracture behavior of CFRP/3D-printed titanium alloy adhesive joint prepared by hot-press-aided co-bonding. *International Journal of Adhesion and Adhesives*, **2022**, 103169 3.4 O

4 Effects of Annealing Treatment of Carbon Nanotube on the Fracture Properties of Carbon Nanotube/Alumina Composites. *Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A*, **2013**, 79, 706-710

3 Preparation of Carbon Nanotube Reinforced Alumina Composites and Examination of Their Fracture Mechanisms. *Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A*, **2011**, 77, 1041-1045

2 112 Preparation of Carbon Nanotube Reinforced Alumina Composites and Examination of Their Fracture Mechanisms. *The Proceedings of the Materials and Processing Conference*, **2010**, 2010.18, _112-1_O-_112-5_

1 191 Observation of the Carbon Nanotube/Alumina Composites Fracture Process and Improvement of Their Mechanical Properties. *The Proceedings of Conference of Tohoku Branch*, **2011**, 2011.46, 184-185O