

# Takashi Sumigawa

## List of Publications by Year in descending order

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Version: 2024-02-01

32  
papers

214  
citations

1478505

6  
h-index

1125743

13  
g-index

32  
all docs

32  
docs citations

32  
times ranked

200  
citing authors

#	ARTICLE	IF	CITATIONS
1	Simultaneously Toughening and Stiffening Elastomers with Octuple Hydrogen Bonding. <i>Advanced Materials</i> , 2021, 33, e2008523.	21.0	92
2	Development of experimental methodology on fracture toughness of microscale polymer resins under in situ observation. <i>Material Design and Processing Communications</i> , 2020, 2, e102.	0.9	0
3	Notch sensitivity of metamaterial with snapping microstructure. <i>Transactions of the JSME (in Japanese)</i> , 2020, 86, 13-14, 13-14.	0.2	0
4	Fracture Behavior of Nanoscale Notched Silicon Beams Investigated by the Theory of Critical Distances. <i>Advanced Theory and Simulations</i> , 2018, 1, 1700006.	2.8	22
5	Estimation of anisotropic properties of nano-structured arrays by modal vibration control at microscale. <i>Mechanics of Advanced Materials and Structures</i> , 2018, 25, 386-394.	2.6	1
6	Griffith Criterion for Nanoscale Stress Singularity in Brittle Silicon. <i>ACS Nano</i> , 2017, 11, 6271-6276.	14.6	38
7	A Highly Reliable Structure for Power-Semiconductor Devices That a Nano-spring Layer Absorbs Thermal Deformation. <i>Journal of Smart Processing</i> , 2016, 5, 251-258.	0.1	1
8	Superior room-temperature ductility of typically brittle quasicrystals at small sizes. <i>Nature Communications</i> , 2016, 7, 12261.	12.8	32
9	Delamination Behavior Along Interface between Submicron Thick Polymer Film and Substrate under Creep. <i>Zairyo/Journal of the Society of Materials Science, Japan</i> , 2016, 65, 176-181.	0.2	0
10	Dominant factor on fracture strength of thin film comprising of copper helical nano-elements grown by glancing angle deposition. <i>Transactions of the JSME (in Japanese)</i> , 2015, 81, 15-00446-15-00446.	0.2	1
11	OS12-11 Crack propagation along interface between submicron-thick epoxy film and silicon substrate due to creep (Mechanical properties of nano- and micro-materials-3, OS12 Mechanical properties of nano- and micro-materials-3). <i>Transactions of the JSME (in Japanese)</i> , 2015, 81, 15-00446-15-00446.	0.0	0
12	OS12-7 Criterion for Crack Propagation due to Nanometer-scale Singular Stress Field in Silicon Single Crystal (Mechanical properties of nano- and micro-materials-2, OS12 Mechanical properties of nano- and micro-materials-2). <i>Transactions of the JSME (in Japanese)</i> , 2015, 81, 15-00446-15-00446.	0.0	0
13	on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2015, 2015.14, 189.		
13	Size dependence of fatigue damage in sub-micrometer single crystal gold. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 618, 416-423.	5.6	14
14	Mechanics of fracture in nanometer-scale components. <i>Mechanical Engineering Reviews</i> , 2014, 1, SMM0007-SMM0007.	4.7	6
15	J2240405 Effect of Microscopic Structure on Fatigue Slip Band Formation in Copper Polycrystalline Nano-component. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2014, 2014, _J2240405-_J2240405-.	0.0	0
16	OS1112 Size Effect of Fatigue Slip Band Formation in Micron-/Submicron-scale Gold Single Crystal. <i>The Proceedings of the Materials and Mechanics Conference</i> , 2014, 2014, _OS1112-1_-_OS1112-3_.	0.0	0
17	Three-Dimensional Cohesive Zone Modeling on Interface Crack Initiation from Nanoscale Stress Concentration. <i>Journal of Solid Mechanics and Materials Engineering</i> , 2011, 5, 117-127.	0.5	2
18	Development of in-situ TEM Observation Method on Plasticity in Nanoscale Component. <i>Journal of Solid Mechanics and Materials Engineering</i> , 2011, 5, 128-137.	0.5	3

#	ARTICLE	IF	CITATIONS
19	OS13F017 Fracture Criterion for Cracking along the Cu/Si Interface in Nanoscale Thin Films by Cohesive Zone Model. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, OS13F017- OS13F017-.	0.0	0
20	OS2404 Analysis of local strain in Cu micro-interconnection based on crystallographic plasticity. The Proceedings of the Materials and Mechanics Conference, 2011, 2011, OS2404-1- OS2404-3-.	0.0	0
21	OS1608 Deformation and fracture of nano-component with dissimilar interface. The Proceedings of the Materials and Mechanics Conference, 2011, 2011, OS1608-1- OS1608-3-.	0.0	0
22	OS06-1-3 In-situ TEM observation on fracture of dissimilar interface in nanoscale component. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, OS06-1-3-.	0.0	0
23	OS13-1-2 Fracture Criterion for Cracking along the Cu/Si Interface in Nanoscale Thin Films by Cohesive Zone Model. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, OS13-1-2-.	0.0	0
24	Development of in-situ TEM Observation Method on Plasticity in Nanoscale Component. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1713-1720.	0.2	1
25	Mechanical Instability Criterion of Dislocation Structures Based on Discrete Dislocation Dynamics. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1721-1728.	0.2	1
26	1504 Fatigue of Copper Film in Nanometer Scale. The Proceedings of the Materials and Mechanics Conference, 2010, 2010, 82-83.	0.0	0
27	109 éŠ...â¼¼®ç°æŽŸâ•éƒˆã®âŸæ€Šã²ãšãŸâ±€ãœˆã€–ã«é–ãšªã,«è\$ƒæžçš„æœœèŽ(OS-1 ç²'ç•€ãƒf»è»ã½/2). The Proceedings of Conference on Experimental Mechanics, 2011, 2011.10, OS13F017- OS13F017-.	0.0	0
28	Fracture Nano-Mechanics : 1st Report, Interface Strength of Nano-Components(<Special Issue>Thermal) Tj ETQq0 0 0 rgBT /Overlock 10 Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 778-783.	0.2	0
29	Fracture Nano-Mechanics : 2nd Report, Strength of Nano-Elements(<Special Issue>Thermal and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 784-791.	0.2	0
30	T0301-1-2 Strength of Crack Initiation at Nano-thickness Cu Film and Si Substrate Interface Edge. The Proceedings of the JSME Annual Meeting, 2009, 2009.8, 35-36.	0.0	0
31	OS1107 Crack Initiation at the center of Interface between Cu Thin Film and Si Substrate in Nano-sized Component. The Proceedings of the Materials and Mechanics Conference, 2009, 2009, 113-114.	0.0	0
32	535 Analysis for stress distribution near interface edge between nanostructured thin film and solid body. The Proceedings of the Materials and Mechanics Conference, 2007, 2007, 405-406.	0.0	0