

Takeshi Iwamoto

List of Publications by Year in descending order

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120
papers

1,229
citations

567281

15
h-index

377865

34
g-index

122
all docs

122
docs citations

122
times ranked

665
citing authors

#	ARTICLE	IF	CITATIONS
1	Constitutive modeling of trip steel and its application to the improvement of mechanical properties. International Journal of Mechanical Sciences, 1995, 37, 1295-1305.	6.7	208
2	Investigation on deformation mode dependence of strain-induced martensitic transformation in trip steels and modelling of transformation kinetics. International Journal of Mechanical Sciences, 1998, 40, 173-182.	6.7	198
3	Computational simulation of the dependence of the austenitic grain size on the deformation behavior of TRIP steels. International Journal of Plasticity, 2000, 16, 791-804.	8.8	100
4	Computational prediction of deformation behavior of TRIP steels under cyclic loading. International Journal of Mechanical Sciences, 2001, 43, 2017-2034.	6.7	90
5	Multiscale computational simulation of deformation behavior of TRIP steel with growth of martensitic particles in unit cell by asymptotic homogenization method. International Journal of Plasticity, 2004, 20, 841-869.	8.8	71
6	Computational simulation on deformation behavior of CT specimens of TRIP steel under mode I loading for evaluation of fracture toughness. International Journal of Plasticity, 2002, 18, 1583-1606.	8.8	65
7	Effects of radial inertia and end friction in specimen geometry in split Hopkinson pressure bar tests: A computational study. Mechanics of Materials, 2012, 51, 97-109.	3.2	55
8	Experimental and computational investigations on strain rate sensitivity and deformation behavior of bulk materials made of epoxy resin structural adhesive. International Journal of Solids and Structures, 2010, 47, 175-185.	2.7	43
9	Stress analysis and strength evaluation of scarf adhesive joints subjected to static tensile loadings. International Journal of Adhesion and Adhesives, 2010, 30, 387-392.	2.9	39
10	An evaluation of fracture properties of type-304 austenitic stainless steel at high deformation rate using the small punch test. International Journal of Mechanical Sciences, 2018, 144, 249-261.	6.7	37
11	An experimental study on strain-induced martensitic transformation behavior in SUS304 austenitic stainless steel during higher strain rate deformation by continuous evaluation of relative magnetic permeability. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 774, 138927.	5.6	24
12	A STUDY ON IMPACT DEFORMATION AND TRANSFORMATION BEHAVIOR OF TRIP STEEL BY FINITE ELEMENT SIMULATION AND EXPERIMENT. International Journal of Modern Physics B, 2008, 22, 5985-5990.	2.0	21
13	Identification of Constitutive Equation for TRIP Steel and Its Application to Improve Mechanical Properties. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2001, 44, 443-452.	0.4	18
14	An experimental investigation on rate dependency of thermomechanical and Stress-induced martensitic transformation behavior in Fe-28Mn-6Si-5Cr shape memory alloy under compression. International Journal of Impact Engineering, 2019, 132, 103284.	5.0	17
15	A new method to measure volume resistivity during tension for strain rate sensitivity in deformation and transformation behavior of Fe-28Mn-6Si-5Cr shape memory alloy. International Journal of Mechanical Sciences, 2018, 146-147, 445-454.	6.7	16
16	Effect of normal scratch load and HF etching on the mechanical behavior of annealed and chemically strengthened aluminosilicate glass. Ceramics International, 2020, 46, 4813-4823.	4.8	15
17	An Experimental Study on Strain Rate Sensitivity of Strain-Induced Martensitic Transformation in SUS304 by Real-time Measurement of Relative Magnetic Permeability. Steel Research International, 2017, 88, 1700022.	1.8	14
18	An Experimental Investigation on Rate Sensitivity of Fracture-Mechanical Characteristics in 304 Austenitic Stainless Steel under Bending Deformation. ISIJ International, 2015, 55, 2661-2666.	1.4	12

#	ARTICLE	IF	CITATIONS
19	Finite Element Analysis on a Newly-Modified Method for the Taylor Impact Test to Measure the Stress-Strain Curve by the Only Single Test Using Pure Aluminum. Metals, 2018, 8, 642.	2.3	11
20	Effect of impact deformation on shape recovery behavior in Fe-Mn-Si shape memory alloy under shape memory training process with cyclic thermo-mechanical loading. Science China Technological Sciences, 2021, 64, 1389-1400.	4.0	11
21	Development of impact small punch test for investigating energy absorption. International Journal of Mechanical Sciences, 2021, 208, 106675.	6.7	11
22	Instrumented Taylor impact test for measuring stress-strain curve through single trial. International Journal of Impact Engineering, 2021, 157, 103980.	5.0	11
23	Finite Element Simulation of Martensitic Transformation in Single-Crystal TRIP Steel Based on Crystal Plasticity Theory with Cellular Automata Approach. Key Engineering Materials, 2004, 274-276, 679-684.	0.4	10
24	Study on capturing transformationâ€™thermomechanical behaviour of TRIP steel during impact compression. Materials Research Innovations, 2011, 15, s131-s134.	2.3	10
25	A Measurement of Volume Resistivity in Fe-Based Shape Memory Alloy under Tensile Deformation and its Evaluation of Strain Rate Sensitivity. Key Engineering Materials, 0, 725, 72-76.	0.4	8
26	Measurement of transient temperature at super-high-speed deformation. International Journal of Mechanical Sciences, 2021, 206, 106626.	6.7	8
27	A Computational Investigation on Bending Deformation Behavior at Various Deflection Rates for Enhancement of Absorbable Energy in TRIP Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3897-3911.	2.2	7
28	A Review on Experimental Investigations of Rate Sensitivity of Deformation Behavior in Fe-Based Shape Memory Alloys. Advanced Structured Materials, 2017, , 31-42.	0.5	7
29	A finite element-based level-set method of an interface motion driven by a diffusion field: Application to a phase transformation problem. Computational Materials Science, 2008, 44, 792-801.	3.0	6
30	New Analytical Approach to Predict Creep Void Growth in Heat-Affected Zone of High Cr Steel Weldments. , 2011, , .		6
31	A Study on Evaluation of Impact Strength of Adhesive Joints Subjected to Impact Shear Loadings. , 2008, , .		5
32	An Experimental Evaluation on Change in Impedance of TRIP Steel Subjected to Plastic Deformation at Various Strain Rates. Key Engineering Materials, 0, 535-536, 445-448.	0.4	5
33	An Estimation of Joint Strength by Using Fe-Based Shape Memory Alloy Subjected to Bending Deformation at Various Deformation Rate. Key Engineering Materials, 0, 626, 228-233.	0.4	5
34	AN EXPERIMENTAL STUDY ON THE IMPACT DEFORMATION AND THE STRAIN RATE SENSITIVITY IN SOME STRUCTURAL ADHESIVES. International Journal of Modern Physics B, 2008, 22, 5590-5595.	2.0	4
35	A Computational Simulation of Martensitic Transformation in Polycrystal TRIP Steel by Crystal Plasticity FEM with Voronoi Tessellation. Key Engineering Materials, 2019, 794, 71-77.	0.4	4
36	A Crystal Plasticity Simulation on Strain-Induced Martensitic Transformation in Crystalline TRIP Steel by Coupling with Cellular Automata. Metals, 2021, 11, 1316.	2.3	4

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37	Effect of deformation rate on the axial joint strength made of Fe-SMA. Journal of Constructional Steel Research, 2022, 191, 107193.	3.9	4
38	A Numerical Investigation of Interface Dynamics during Martensitic Transformation in a Shape Memory Alloy Using the Level-Set Method. Key Engineering Materials, 2007, 340-341, 1199-1204.	0.4	3
39	FEM Stress Analysis and Sealing Performance Evaluation in Pipe Flange Connections With Spiral Wound Gaskets Subjected to External Bending Moments: Case Where Internal Fluid is Liquid. , 2008, , .		3
40	Deformation Mode Dependency on Strain Rate Sensitivity of Volume Resistivity in TRIP Steel. Key Engineering Materials, 0, 535-536, 473-476.	0.4	3
41	A Study on Reduction of Friction in Impact Compressive Test Based on the Split Hopkinson Pressure Bar Method by Using a Hollow Specimen. Applied Mechanics and Materials, 2014, 566, 548-553.	0.2	3
42	An Experimental Study on Rate-sensitive Tensile Deformation Behaviour of Fe-based Shape Memory Alloy. MATEC Web of Conferences, 2015, 33, 04003.	0.2	3
43	An Experimental Study on Axial Joint Strength Made of Fe-28Mn-6Si-5Cr Shape Memory Alloy at Various Deformation Speeds. Key Engineering Materials, 0, 725, 99-104.	0.4	3
44	A Proposition of a Kinetics Model for Stress-induced Martensitic Transformation in Fe-28Mn-6Si-5Cr Shape Memory Alloy. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2015, 101, 378-383.	0.4	3
45	Assessment of Geometrical Orientation of Martensitic Particles in TRIP Steel by Fourier and Wavelet Transformation Image Analysis. Key Engineering Materials, 2003, 233-236, 627-636.	0.4	2
46	Macroscopic Constitutive Modeling of TRIP Steel Using Green Function and Computational Simulation of Its Deformation Behavior. Zairyo/Journal of the Society of Materials Science, Japan, 2004, 53, 1365-1370.	0.2	2
47	Two-Dimensional Stress Analysis of Adhesive Butt Joints Filled With Elastic Circular Fillers in the Adhesive Subjected to Static Tensile Loadings. Journal of Adhesion Science and Technology, 2009, 23, 195-214.	2.6	2
48	On Strain Rate Sensitivity of Deformation Behavior of Bulk Epoxy Resin Structural Adhesive : 2nd Report, Three Dimensional Constitutive Formulation and Finite Element Simulation. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 1402-1408.	0.2	2
49	A Finite Element Stress Analysis of Adhesive Joint Bonded by Epoxy Resin Structural Adhesive under Impact Loading. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 1141-1147.	0.2	2
50	A Three-Dimensional Finite Element Stress Analysis and Strength Prediction of Stepped-Lap Adhesive Joints of Dissimilar Adherends Subjected to Tensile Loadings. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 279-286.	0.2	2
51	An Evaluation of Energy Absorption under Three-Point Bending Deformation at Higher Deflection Rate for TRIP Steel. Key Engineering Materials, 2014, 626, 340-346.	0.4	2
52	An experimental investigation of energy absorption in TRIP steel under impact three-point bending deformation. EPJ Web of Conferences, 2015, 94, 02004.	0.3	2
53	Review on Spatio-Temporal Multiscale Phenomena in TRIP Steels and Enhancement of Its Energy Absorption. Advanced Structured Materials, 2015, , 143-161.	0.5	2
54	A Computational Investigation on Small Punch Test for Evaluating Fracture Toughness of TRIP Steel at Higher Deformation Rate. Key Engineering Materials, 0, 725, 66-71.	0.4	2

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55	A Study on Tensile Deformation Behavior in Fe-Based Shape Memory Alloy by Rate Sensitive Transformation Kinetics Model. Key Engineering Materials, 0, 725, 77-81.	0.4	2
56	An Experimental Evaluation for Rate Sensitivity of Fe-28Mn-6Si-5Cr Shape Memory Alloy under Bending Deformation. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2015, 101, 400-405.	0.4	2
57	A Numerical Study on an Impact Deformation Behavior of TRIP Steel. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 404-409.	0.2	1
58	Bending deformation behaviour of TRIP steel at several deflection rates. Materials Research Innovations, 2011, 15, s122-s125.	2.3	1
59	An Experimental Evaluation on Rate Sensitivity of Absorption Energy Evaluated by Measurement of J-integral in Austenitic Stainless Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 322-328.	0.4	1
60	An Experimental Evaluation of Energy Absorption of TRIP Steel by Small Punch Test. Key Engineering Materials, 0, 725, 60-65.	0.4	1
61	3D IN VIVO IDENTIFICATION SYSTEM FOR CONSTITUTIVE PARAMETERS OF SKIN. Biomechanisms, 2000, 15, 17-30.	0.1	0
62	Ductility and Brittleness Simulation during Micro Void Evolution Process of Ductile Material Using Rigid Plastic FEM Based on Gurson Type Yield Function. Key Engineering Materials, 2000, 177-180, 213-218.	0.4	0
63	201 Computational Simulation of Deformation Behavior of TRIP Steel in Microscopic Region with Growth of Elliptic Martensite. The Proceedings of Conference of Chugoku-Shikoku Branch, 2001, 2001.39, 41-42.	0.0	0
64	An in Vivo State Identification System of Constitutive Parameters in Active and Passive Mechanical Properties of Facial Muscle.. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2002, 68, 730-737.	0.2	0
65	Micro-Morphology Generation in In-Vessel and Twin-Roll Castings under Magnetic Excitation by the Cellular Automaton Approach. Key Engineering Materials, 2003, 233-236, 521-528.	0.4	0
66	Micro Damage Evolution Analysis of Target Impacted by Projectile.. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2003, 46, 109-118.	0.4	0
67	A Finite Element Simulation of Interface Motion Driven by Diffusion Field in Solid Materials Based on the Level-set Method. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2008, 74, 1191-1197.	0.2	0
68	On Strain Rate Sensitivity of Deformation Behavior of Bulk Epoxy Resin Structural Adhesive : 1st Report, Formulation of Plastic Shear Strain Rate. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 1395-1401.	0.2	0
69	Numerical Study of Effects of Inertia Force and Friction Applied to Cylindrical Specimens in Split Hopkinson Pressure Bar Technique. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1596-1602.	0.2	0
70	Verification of Taylor Impact Test by Using Force Sensing Block. Key Engineering Materials, 0, 626, 444-449.	0.4	0
71	An Evaluation on Strain Dependency and Strain Rate Sensitivity of Martensitic Transformation Generated in TRIP Steel by Measurement of Magnetic Permeability. Key Engineering Materials, 0, 626, 432-437.	0.4	0
72	A Study on Rate Sensitivity of Impedance in TRIP Steel during Deformation at Various Strain Rate under Two Kinds of Deformation Mode<sup></sup>. Applied Mechanics and Materials, 0, 566, 140-145.	0.2	0

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73	Effect of Deflection Rate on Bending Deformation Behavior of Fe-Based Shape Memory Alloy. Applied Mechanics and Materials, 0, 566, 116-121.	0.2	0
74	3D finite element simulation of effects of deflection rate on energy absorption for TRIP steel. EPJ Web of Conferences, 2015, 94, 04012.	0.3	0
75	Comparison of Stress-induced Martensitic Transformation Under Tension and Compression in Fe-28Mn-6Si-Cr Shape Memory Alloy. EPJ Web of Conferences, 2018, 183, 02025.	0.3	0
76	Deformation Behavior of the Alloys under Simple and Combined Loading Conditions at Various Deformation Rate. Metals, 2018, 8, 733.	2.3	0
77	A Study on Measuring Distribution of Temperature for Instrumented Taylor Impact Test. EPJ Web of Conferences, 2021, 250, 01028.	0.3	0
78	An Evaluation on Fracture Toughness in SUS304 at High Strain Rate Considering Process Zone. EPJ Web of Conferences, 2021, 250, 03013.	0.3	0
79	117 Modeling of Transformation Kinetics by Fraction Tensor and Estimation of Orientation of Strain-induced Martensite. The Proceedings of Conference of Chugoku-Shikoku Branch, 2000, 005.1, 33-34.	0.0	0
80	302 MODELING OF TONGUE KINETIC MODEL FOR VOCALIZING, AND SIMULATION FOR VOWEL GENERATION IN FLOWING FIELD. The Proceedings of Conference of Chugoku-Shikoku Branch, 2000, 005.1, 83-84.	0.0	0
81	Creep remodeling analysis for facial permanent wrinkling and their degeneration under Lorenz force excitation. Proceedings of the JSME Bioengineering Conference and Seminar, 2000, 2000.11, 35-36.	0.0	0
82	118 Experiment and Computational simulation on the Fracture Toughness of TRIP Steel under mode I loading. The Proceedings of Conference of Chugoku-Shikoku Branch, 2000, 005.1, 35-36.	0.0	0
83	119 Computational Simulation of Deformation Behavior of Microscopic Unit Cell Embedded Elliptic Martensite in TRIP Steel and Comparison of Micromechanics. The Proceedings of Conference of Chugoku-Shikoku Branch, 2000, 005.1, 37-38.	0.0	0
84	K-0335 Computational Simulation of Deformation Behavior of TRIP steel Based on Homogenization Method. The Proceedings of the JSME Annual Meeting, 2001, I.01.1, 65-66.	0.0	0
85	315 Simulation of vocals movement when it is generating glottal source sound.. The Proceedings of Conference of Chugoku-Shikoku Branch, 2001, 2001.39, 109-110.	0.0	0
86	K-0336 Computational Simulation of Impact Deformation Behavior of TRIP Steel by Dynamic- Explicit Elasto-Viscoplastic FEM. The Proceedings of the JSME Annual Meeting, 2001, I.01.1, 67-68.	0.0	0
87	Computational Simulation of Martensitic Transformation Process in TRIP Steel based on Crystal Plasticity. The Proceedings of Conference of Chugoku-Shikoku Branch, 2002, 2002.40, 107-108.	0.0	0
88	FEM Simulation of generating glottal source sound with Vocal model and making Vowel by considering Breathing Flow. The Proceedings of Conference of Chugoku-Shikoku Branch, 2002, 2002.40, 37-38.	0.0	0
89	Finite Element Simulation of Strain-induced Martensitic Transformation Process in TRIP Steel based on Crystal Plasticity. The Proceedings of the JSME Annual Meeting, 2002, 2002.2, 71-72.	0.0	0
90	Computational Simulation of Deformation Behavior of TRIP Steel under high velocity deformation. The Proceedings of the Computational Mechanics Conference, 2002, 2002.15, 107-108.	0.0	0

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91	The multi-body dynamics analysis of trunk motion with muscle contraction in the case of the lifting work for care. The Proceedings of Conference of Chugoku-Shikoku Branch, 2002, 2002.40, 15-16.	0.0	0
92	The Muscles-Skin Coupled FEM Analysis of Human Facial Expression by The 3D Mesh Generation System. The Proceedings of Conference of Chugoku-Shikoku Branch, 2002, 2002.40, 35-36.	0.0	0
93	Self-Excitation Vocalization Analyses of Vocal Chord Under Breathing Flow and Wide Frequency Change by Muscle Activation. , 2002, , .		0
94	Estimation of geometrical orientation of strain-induced martensitic particles by Fourier and wavelet transformation image analysis. Proceedings of the 1992 Annual Meeting of JSME/MMD, 2002, 2002, 45-46.	0.0	0
95	Computational Simulation of Deformation Behavior of TRIP steel Based on Homogenization Method. The Proceedings of Conference of Chugoku-Shikoku Branch, 2002, 2002.40, 105-106.	0.0	0
96	Constitutive Equation and Computational Prediction of Deformation Behavior of TRIP Steels under Monotonic and Cyclic Loading. Solid Mechanics and Its Applications, 2002, , 9-18.	0.2	0
97	Finite Element Simulation of Deformation and Transformation Behaviors of TRIP Steel Based on Crystal Plasticity with Nonlocality. The Proceedings of the Computational Mechanics Conference, 2004, 2004.17, 51-52.	0.0	0
98	Formulation of Asymptotic Homogenization Method Based on Transformation-Thermo-Crystal Plasticity in TRIP Steel. The Proceedings of the Computational Mechanics Conference, 2004, 2004.17, 53-54.	0.0	0
99	229 Numerical Simulation of Interface Motion Coupled with Stress and Concentration Fields by Level-set Method. The Proceedings of the Computational Mechanics Conference, 2006, 2006.19, 135-136.	0.0	0
100	241 Numerical Simulation on Propagation Process of Martensitic Band in Shape Memory Alloy by Level-set Method. The Proceedings of the Computational Mechanics Conference, 2006, 2006.19, 379-380.	0.0	0
101	1101 Numerical Simulation of Solid-Solid Phase Transformation Depending on Stress and Diffusion Fields by Using Level-set Method. The Proceedings of the Computational Mechanics Conference, 2007, 2007.20, 673-674.	0.0	0
102	905 A numerical simulation of deformation behavior of TRIP steels under impact loading. The Proceedings of the Computational Mechanics Conference, 2007, 2007.20, 509-510.	0.0	0
103	F01(6) Numerical Simulation of Phase Transformation in Solid Materials by Using Level-set Method. The Reference Collection of Annual Meeting, 2007, 2007.8, 157-158.	0.0	0
104	Constitutive Modeling of Single Crystal TRIP Steel Based on Transformation “ Crystal Plasticity Theory and Computational Simulation of Its Transformation and Deformation Behavior by Cellular Automata Approach. Zairyo/Journal of the Society of Materials Science, Japan, 2008, 57, 219-224.	0.2	0
105	A Three-Dimensional Finite Element Stress Analysis of Plain-Woven CFRP Adhesive Laminated Plates and Hollow Cylinder Under Out-of-Plane Loading. , 2008, , .		0
106	OS0914 A study on the impact deformation behavior and the strain rate sensitivity in some structural adhesives using split Hopkinson pressure bar method. The Proceedings of the Materials and Mechanics Conference, 2008, 2008, _OS0914-1_- _OS0914-2_.	0.0	0
107	An Analysis of Geometrical Orientation of Martensite in TRIP Steel by Using Fourier Transformation Image Analysis. Zairyo/Journal of the Society of Materials Science, Japan, 2008, 57, 590-595.	0.2	0
108	A Numerical Study of Fibrous Tissue Formation of Type I Collagen under Mechanical Stimuli by Reaction - Diffusion Equations with Motion of Fibroblasts~!2008-03-31~!2008-05-29~!2008-06-12~!. Open Mechanics Journal, 2008, 2, 47-56.	0.5	0

