Tomoya Kawabata

List of Publications by Year
in descending order

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47	401	933447	839539
papers	citations	10 h-index	18 g-index

47	47	47	204
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Brittle crack propagation resistance inside grain and at high angle grain boundary in 3% Si-Fe alloy. Acta Materialia, 2018, 144, 768-776.	7.9	42
2	Proposal for a new CTOD calculation formula. Engineering Fracture Mechanics, 2016, 159, 16-34.	4.3	41
3	Comparison of CTOD standards: BS 7448-Part 1 and revised ASTM E1290. Engineering Fracture Mechanics, 2010, 77, 327-336.	4.3	35
4	Contribution of grain size to resistance against cleavage crack propagation in ferritic steel. Acta Materialia, 2019, 177, 96-106.	7.9	28
5	A new concept of digital twin of artifact systems: synthesizing monitoring/inspections, physical/numerical models, and social system models. Procedia CIRP, 2019, 79, 667-672.	1.9	28
6	Experimental measurements of deformed crack tips in different yield-to-tensile ratio steels. Engineering Fracture Mechanics, 2014, 128, 157-170.	4.3	23
7	Effect of dispersed retained Î³-Fe on brittle crack arrest toughness in 9% Ni steel in cryogenic temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 723, 238-246.	5.6	20
8	Numerical simulation of residual stress modification by reverse bending of notched fracture toughness test specimens of multipass welds. Theoretical and Applied Fracture Mechanics, 2017, 92, 214-222.	4.7	14
9	Plastic deformation behavior in SEB specimens with various crack length to width ratios. Engineering Fracture Mechanics, 2017, 178, 301-317.	4.3	12
10	Investigation on Î· and m factors for J integral in SE(B) specimens. Theoretical and Applied Fracture Mechanics, 2018, 97, 224-235.	4.7	12
11	Prediction of Charpy impact toughness of steel weld heat-affected zones by combined micromechanics and stochastic fracture model â€“ Part I: Model presentation. Engineering Fracture Mechanics, 2020, 230, 106965.	4.3	12
12	Applicability of new CTOD calculation formula to various a 0 / W conditions and B Ã— B configuration. Engineering Fracture Mechanics, 2017, 179, 375-390.	4.3	10
13	Effect of specimen size, applied stress and temperature gradient on brittle crack arrest toughness test. International Journal of Fracture, 2017, 204, 245-260.	2.2	9
14	Digital Twin of Artifact Systems: Models Assimilated with Monitoring Data from Material Microstructures to Social Systems. International Journal of Automation Technology, 2020, 14, 700-712.	1.0	9
15	Numerical model of brittle crack propagation considering fracture surface energy on high tensile strength steel. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2012, 16, 77-87.	0.2	8
16	Increase in micro-cracks beneath cleavage fracture surface in carbon steel ESSO specimens. Theoretical and Applied Fracture Mechanics, 2019, 101, 365-372.	4.7	8
17	Difference between ASTM E1290 and BS 7448 CTOD Estimation Procedures. Welding in the World, Le Soudage Dans Le Monde, 2010, 54, R182-R188.	2.5	7
18	Evaluation of the effect of strength mismatch in undermatched joints on the static tensile strength of welded joints by considering microstructure. Welding International, 2014, 28, 766-774.	0.7	6

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19	Through Process Modeling of the Fracture Toughness Test of Multipass Welds Incorporating Residual Stress Distribution. Procedia Structural Integrity, 2018, 13, 1804-1810.	0.8	6
20	A simplified method for evaluation of brittle crack arrest toughness of steels in scaled-down bending tests. Engineering Fracture Mechanics, 2019, 215, 99-111.	4.3	6
21	Controlling factors for roughness increases on cleavage fracture surfaces and crack branching in polycrystalline steel. Theoretical and Applied Fracture Mechanics, 2019, 100, 171-180.	4.7	6
22	Effect of the stress field on crack branching in brittle material. Theoretical and Applied Fracture Mechanics, 2020, 108, 102583.	4.7	6
23	Plastic rotational factors in three point bending test of steels with various crack length to width ratio. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 242-252.	0.5	5
24	An Observation of Brittle Crack Propagation in Coarse Grained 3% Silicon Steel. Procedia Structural Integrity, 2016, 2, 493-500.	0.8	5
25	Evaluation of rotational deformation in compact specimens for CTOD fracture toughness testing. Procedia Structural Integrity, 2017, 5, 286-293.	0.8	5
26	Historical review of research on brittle crack propagation arresting technology for large welded steel structures developed in Japan with the application of Kca parameters. Marine Structures, 2020, 71, 102737.	3.8	5
27	Clarification of micromechanism on Brittle Fracture Initiation Condition of TMCP Steel with MA as the trigger point. Procedia Structural Integrity, 2018, 13, 1845-1854.	0.8	4
28	Critical Condition of Ductile Crack Extension and Its Critical Condition of Subsequent Brittle Fracture for High Strength Steel. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2007, 5, 235-243.	0.2	3
29	Micro-processes of brittle fracture initiation in bainite steel manufactured by ausforming. Procedia Structural Integrity, 2016, 2, 3668-3675.	0.8	3
30	Prediction of steel weld HAZ Charpy impact property based on stochastic fracture model incorporating microstructural parameters. Procedia Structural Integrity, 2018, 13, 198-203.	0.8	3
31	Assessment of finite element analyses of load mode (bending vs. tension) effects for mitigation of judgment on pop-ins caused by splits. Engineering Fracture Mechanics, 2019, 205, 28-39.	4.3	3
32	Investigation on Enhancement of Property of Ductile Crack Initiation in 780MPa Class High Tensile Strength Steel Plate-Studies of Safety against Fracture on 780MPa Class High Tensile Strength Steel Plate after Prestrain (Report 4)-. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2005, 23, 319-328.	0.5	3
33	Measurement of local brittle fracture stress for dynamic crack propagation in steel. Procedia Structural Integrity, 2016, 2, 395-402.	0.8	2
34	Formulation of CTOD design curve considering the yield to tensile ratio. Procedia Structural Integrity, 2017, 5, 279-285.	0.8	2
35	An experimental study on Kca value to arrest a running brittle crack in structural model specimens with steel plate of 100Âmm thickness for container ships. Journal of Marine Science and Technology, 2020, 25, 943-963.	2.9	2
36	Brittle crack arrest behavior and its interpretation in an isothermal crack arrest test. Engineering Fracture Mechanics, 2020, 235, 107130.	4.3	2

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37	Effect of Stress Reflection on Dynamic Stress Intensity Factor in Crack Arrest Toughness Testing. International Journal of Offshore and Polar Engineering, 2020, 30, 375-381.	0.8	2
38	Effect of stress field around running crack tip on fracture surface energy during brittle crack propagation. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2015, 21, 63-73.	0.2	1
39	Consideration on the toughness difference depending on the direction of brittle crack propagation in very thick steel. Procedia Structural Integrity, 2019, 21, 173-184.	0.8	1
40	Investigation on Enhancement of Uniform Elongation in 780 MPa Class High Tensile Strength Steel Plate-Studies of Safety Against Fracture on 780 MPa Class High Tensile Strength Steel Plate after Prestrain (Report 2)-. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2003, 21, 433-441.	0.5	1
41	Numerical simulation and experiment on brittle fracture surface morphologies in steel. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 134-146.	0.5	1
42	Computer simulation of cleavage fracture surface morphologies in steel plates. Procedia Structural Integrity, 2018, 13, 104-109.	0.8	0
43	Effect of triaxial stress distribution upon roughness of brittle fracture surface. MATEC Web of Conferences, 2019, 300, 11007.	0.2	0
44	Reproducibility of pop-in using heterogeneous welded joint specimen and cohesive surface model. MATEC Web of Conferences, 2019, 300, 19004.	0.2	0
45	Effects of residual stress by EB welds on assessment of crack arrest temperature (CAT). Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 1161-1174.	2.5	0
46	Low cycle fatigue property of 1000N class steel and performances of H-section Column-to-Beam Welded Joints. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2011, 29, 125-134.	0.5	0
47	Coalescence judgment criteria for the interaction between two close surface cracks by WES2805 and its safety margin for brittle fracture assessment. AIMS Materials Science, 2016, 3, 1665-1682.	1.4	0