Kazuki Shibanuma

List of Publications by Year
in descending order

60 papers	520 citations	687220 13 h-index	713332 21 g-index
61 all docs	61 docs citations	61 times ranked	235 citing authors

#	Article	IF	Citations
1	Brittle crack propagation/arrest behavior in steel plate â€“ Part I: Model formulation. Engineering Fracture Mechanics, 2016, 162, 324-340.	2.0	38
2	A strategy to predict the fracture toughness of steels with a banded ferriteâ€“pearlite structure based on the micromechanics of brittle fracture initiation. Acta Materialia, 2018, 144, 386-399.	3.8	34
3	Reformulation of XFEM based on PUFEM for solving problem caused by blending elements. Finite Elements in Analysis and Design, 2009, 45, 806-816.	1.7	32
4	Brittle crack propagation/arrest behavior in steel plate â€“ Part II: Experiments and model validation. Engineering Fracture Mechanics, 2016, 162, 341-360.	2.0	32
5	Model for predicting fatigue life and limit of steels based on micromechanics of small crack growth. Materials and Design, 2018, 139, 269-282.	3.3	29
6	Crack tip opening angle during unstable ductile crack propagation of a high-pressure gas pipeline. Engineering Fracture Mechanics, 2018, 204, 434-453.	2.0	29
7	Contribution of grain size to resistance against cleavage crack propagation in ferritic steel. Acta Materialia, 2019, 177, 96-106.	3.8	28
8	Prediction model on cleavage fracture initiation in steels having ferriteâ€“cementite microstructures â€“ Part I: Model presentation. Engineering Fracture Mechanics, 2016, 151, 161-180.	2.0	27
9	Prediction model on cleavage fracture initiation in steels having ferriteâ€“cementite microstructures â€“ Part II: Model validation and discussions. Engineering Fracture Mechanics, 2016, 151, 181-202.	2.0	22
10	Local stress in the vicinity of the propagating cleavage crack tip in ferritic steel. Materials and Design, 2018, 144, 361-373.	3.3	22
11	Observation and Quantification of Crack Nucleation in Ferrite-Cementite Steel. ISIJ International, 2014, 54, 1719-1728.	0.6	17
12	A model of cleavage crack propagation in a BCC polycrystalline solid based on the extended finite element method. Acta Materialia, 2019, 176, 232-241.	3.8	15
13	Multiscale Model Synthesis to Clarify the Relationship between Microstructures of Steel and Macroscopic Brittle Crack Arrest Behavior - Part I: Model Presentation. ISIJ International, 2016, 56, 341-349.	0.6	14
14	Brittle crack propagation/arrest behavior in steel plate â€“ Part III: Discussions on arrest design. Engineering Fracture Mechanics, 2018, 190, 104-119.	2.0	13
15	Multiscale Model Synthesis to Clarify the Relationship between Microstructures of Steel and Macroscopic Brittle Crack Arrest Behavior - Part II: Application to Crack Arrest Test. ISIJ International, 2016, 56, 350-358.	0.6	11
16	Numerical model for unstable ductile crack propagation and arrest in pipelines using finite difference method. Engineering Fracture Mechanics, 2016, 162, 179-192.	2.0	11
17	Evaluation on reproduction of priori knowledge in XFEM. Finite Elements in Analysis and Design, 2011, 47, 424-433.	1.7	9
18	Dependence of Cleavage Facet Size in Ferrite Steel on Temperature. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2012, 98, 184-189.	0.1	9

#	Article	IF	Citations
19	Development of Numerical Model to Predict Cleavage Fracture Toughness of Ferrite-Pearlite Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2015, 101, 384-393.	0.1	9
20	Nonlinear Dynamic Response and Structural Evaluation of Container Ship in Large Freak Waves. Journal of Offshore Mechanics and Arctic Engineering, 2015, 137, .	0.6	9
21	Observation and Quantification of Crack Nucleation in Ferrite-Cementite Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 582-591.	0.1	8
22	Probabilistic Fracture Mechanics Analysis on the Scatter of Critical CTOD. , 2014, 3, 1447-1452.		7
23	3D Observation of Micro-cracks as Cleavage Fracture Initiation Site in Ferrite-pearlite Steel. ISIJ International, 2017, 57, 746-754.	0.6	7
24	Development of Numerical Model to Predict Cleavage Fracture Toughness of Ferrite Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 40-49.	0.1	7
25	An explicit application of partition of unity approach to XFEM approximation for precise reproduction of<i>a priori</i>knowledge of solution. International Journal for Numerical Methods in Engineering, 2014, 97, 551-581.	1.5	6
26	Fracture Toughness Prediction Model for Low-carbon Bainite Steels Containing Inter-lath Martensite. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2016, 102, 320-329.	0.1	6
27	Multiscale modelling strategy for predicting fatigue lives and limits of steels based on a generalised evaluation method of grain boundaries effects. International Journal of Fatigue, 2022, 158, 106749.	2.8	6
28	CURVED-CRACK MODELING BY X-FEM AND ITS APPLICATION FOR SIMULATION OF CRACK GROWTH. Doboku Gakkai Ronbunshuu A, 2007, 63, 108-121.	0.3	5
29	PROPOSAL ON APPROXIMATION OF PATH-INDEPENDENT M-INTEGRAL BY MAPPING AND ANALYSES OF KINKED OR CURVED CRACK USING X-FEM. Doboku Gakkai Ronbunshuu A, 2008, 64, 303-316.	0.3	5
30	A model to evaluate unstable ductile crack arrestability of offshore pipeline. Engineering Fracture Mechanics, 2017, 178, 126-147.	2.0	5
31	Investigation of Micro-crack Initiation as a Trigger of Cleavage Fracture in Ferrite-pearlite Steels. ISIJ International, 2017, 57, 365-373.	0.6	5
32	Underwater burst tests for evaluating unstable ductile crack arrestability in offshore pipelines. Engineering Fracture Mechanics, 2018, 195, 142-161.	2.0	5
33	Numerical Simulation of Fracture Toughness Testing by Prediction Model of Cleavage Fracture Toughness. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 50-59.	0.1	5
34	A Two-Dimensional Hydroelastoplasticity Method of a Container Ship in Extreme Waves. Journal of Offshore Mechanics and Arctic Engineering, 2015, 137, .	0.6	4
35	EVALUATION OF BLENDING ELEMENTS IN XFEM ON CRACK ANALYSIS AND PROPOSAL FOR IMPROVEMENT OF ANALYTICAL ACCURACY. Doboku Gakkai Ronbunshuu A, 2008, 64, 970-981.	0.3	3
36	Multiscale modeling to clarify the relationship between microstructures of steel and macroscopic brittle crack propagation/arrest behavior. Procedia Structural Integrity, 2016, 2, 2389-2396.	0.3	3

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37	FORMULATION OF XFEM BASED ON PUFEM FOR AVOIDING PROBLEM CAUSED BY BLENDING ELEMENTS. Doboku Gakkai Ronbunshuu A, 2009, 65, 228-242.	0.3	2
38	Numerical Simulation of Cleavage Fracture Formation in Grain of Ferrite Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2012, 98, 190-196.	0.1	2
39	Quantitative Prediction of Cleavage Fracture Toughness of Ferrite Steel without Adjustable Parameters. , 2014, 3, 1238-1243.		2
40	Measurement of local brittle fracture stress for dynamic crack propagation in steel. Procedia Structural Integrity, 2016, 2, 395-402.	0.3	2
41	Finite element model to simulate crack propagation based on local fracture stress criterion. Procedia Structural Integrity, 2016, 2, 2558-2565.	0.3	2
42	Modeling of Brittle Crack Propagation/Arrest Behavior in Steel Plates. Procedia Structural Integrity, 2016, 2, 2598-2605.	0.3	2
43	Quantitative Evaluation of Microstructural Influence on the Brittle Fracture Toughness of Ferrite-Pearlite Steels. International Journal of Offshore and Polar Engineering, 2016, 26, 287-295.	0.3	2
44	Numerical Simulation of Brittle Crack Propagation and Arrest in Steels Considering Shear-Lip Formation. International Journal of Offshore and Polar Engineering, 2015, 25, .	0.3	2
45	Multiscale Model Synthesis to Clarify the Relationship between Microstructures of Steel and Macroscopic Brittle Crack Arrest Behavior â€" Part I: Model Presentation. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2016, 102, 347-355.	0.1	2
46	Development of New Formulation and Likelihood Function on Probabilistic Fracture Initiation Model. Procedia Structural Integrity, 2016, 2, 2463-2470.	0.3	1
47	Prediction model for fatigue life considering microstructures of steel. Procedia Structural Integrity, 2016, 2, 2575-2582.	0.3	1
48	FUNDAMENTAL STUDY ON THE SIMULATION OF FAST CRACK PROPAGATION BY FINITE ELEMENT METHOD. Journal of Japan Society of Civil Engineers Ser A2 (Applied Mechanics (AM)), 2015, 71, I_29-I_38.	0.1	1
49	Investigation of Micro-crack Initiation as a Trigger of Cleavage Fracture in Ferrite-pearlite Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2016, 102, 330-339.	0.1	1
50	Evaluation on Dependence of Ductile Crack Propagation Resistance on Crack Velocity. , 2012, , .		0
51	Underwater Pipe Rupture disk Tests Simulating Fractures in Offshore Pipelines and Development of Numerical Model for Gas Decompression. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2016, 23, 115-128.	0.2	0
52	A new model to simulate crack arrest behavior in steel plates used for naval structures. , 2016, , .		0
53	Experimental and numerical investigation on relationship between grain size and arrest toughness in steels. Procedia Structural Integrity, 2016, 2, 2230-2237.	0.3	0
54	Monte Carlo Simulation to Predict Fracture Initiation in Mild Steel. Procedia Structural Integrity, 2016, 2, 2495-2503.	0.3	0

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55	A STUDY ON REPRODUCIBILITY OF PRIORI KNOWLEDGE IN CRACK ANNALISIS BY THE XFEM. Doboku Gakkai Ronbunshuu A, 2009, 65, 955-960.	0.3	0
56	Evaluation on the Brittle Crack Branching in a Steel with Focusing on a Material Texture. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2014, 19, 139-148.	0.2	0
57	Brittle Fracture. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2014, 83, 540-543.	0.0	0
58	A Stochastic method to estimate fracture toughness scatter of inhomogeneous materials based on the weakest-link assumption. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 180-186.	0.1	0
59	Multiscale Model Synthesis to Clarify the Relationship between Microstructures of Steel and Macroscopic Brittle Crack Arrest Behavior â€" Part II: Application to Crack Arrest Test. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2016, 102, 356-364.	0.1	0
60	Development of Cleavage Fracture Initiation Model for Bainite Steels Based on Micromechanism. International Journal of Offshore and Polar Engineering, 2016, 26, 278-286.	0.3	0