

Takehito Kikuchi

List of Publications by Year in descending order

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94
papers

745
citations

759233

12
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713466

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g-index

95
all docs

95
docs citations

95
times ranked

483
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of magnetorheological damper with a combination of shear and squeeze modes. <i>Materials & Design</i> , 2014, 54, 87-95.	5.1	101
2	Development of a Compact Magnetorheological Fluid Clutch for Human-Friendly Actuator. <i>Advanced Robotics</i> , 2010, 24, 1489-1502.	1.8	54
3	Leg-Robot for Demonstration of Spastic Movements of Brain-Injured Patients with Compact Magnetorheological Fluid Clutch. <i>Advanced Robotics</i> , 2010, 24, 671-686.	1.8	35
4	Development of third-generation intelligently Controllable ankle-foot orthosis with compact MR fluid brake. , 2010, , .		34
5	Response time of magnetorheological fluid-based haptic device. <i>Journal of Intelligent Material Systems and Structures</i> , 2016, 27, 859-865.	2.5	31
6	Design and Development of Cylindrical MR Fluid Brake with Multi-Coil Structure. <i>Journal of System Design and Dynamics</i> , 2011, 5, 1471-1484.	0.3	28
7	Gap-Size Effect of Compact MR Fluid Brake. <i>Journal of Intelligent Material Systems and Structures</i> , 2011, 22, 1677-1683.	2.5	26
8	Magnetorheology of colloidal dispersion containing Fe nanoparticles synthesized by the arc-plasma method. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1868-1871.	2.3	25
9	Basic study on gait rehabilitation system with intelligently controllable walker (i-Walker). , 2010, , .		22
10	Evaluation of line-tracing controller of intelligently controllable walker. <i>Advanced Robotics</i> , 2013, 27, 493-502.	1.8	18
11	Twin-driven actuator with multi-layered disc magnetorheological fluid clutches for haptics. <i>Journal of Intelligent Material Systems and Structures</i> , 2021, 32, 1326-1335.	2.5	18
12	Characteristics of a magnetorheological fluid in high shear rate. <i>Smart Materials and Structures</i> , 2016, 25, 115021.	3.5	17
13	Intelligently controllable Ankle Foot Orthosis (I-AFO) and its application for a patient of Guillain-Barre syndrome. , 2009, , .		16
14	Leg-Robot with MR Clutch to Realize Virtual Spastic Movements. <i>Journal of Intelligent Material Systems and Structures</i> , 2010, 21, 1523-1529.	2.5	14
15	Magnetic circuit optimization in designing Magnetorheological damper. <i>Smart Structures and Systems</i> , 2014, 14, 869-881.	1.9	14
16	Automatic adjustment of initial drop speed of foot for intelligently controllable ankle foot orthosis. , 2013, , .		13
17	Haptic Interface with Twin-Driven MR Fluid Actuator for Teleoperation Endoscopic Surgery System. <i>Actuators</i> , 2021, 10, 245.	2.3	11
18	Development of isokinetic and iso-contractile exercise machine “MEM-MRB” using MR brake. , 2009, , .		10

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19	Magnetic field gradient and sample size effect on magnetomechanical response for magnetic elastomers. <i>Reactive and Functional Polymers</i> , 2017, 117, 25-33.	4.1	10
20	Elastic Properties of Magnetorheological Elastomers in a Heterogeneous Uniaxial Magnetic Field. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3045.	4.1	9
21	Development of leg-robot for simulation of spastic movement with Compact MR Fluid Clutch. , 2009, , .		8
22	Gait measurement system to develop control model of intelligently controllable ankle-foot orthosis. , 2011, , .		8
23	Development of a Compact Magnetorheological Fluid Clutch for Human-Friendly Actuator. <i>Advanced Robotics</i> , 2011, 25, 1362-1362.	1.8	8
24	Bioinspired Knee Joint for a Power-Assist Suit. <i>Journal of Robotics</i> , 2016, 2016, 1-8.	0.9	8
25	Magnetically Tunable Vibration Transmissibility for Polyurethane Magnetic Elastomers. <i>Polymers</i> , 2018, 10, 104.	4.5	8
26	POLISHING USING ER SLURRY ON ONE-SIDED PATTERNED ELECTRODES. <i>International Journal of Modern Physics B</i> , 2005, 19, 1682-1688.	2.0	7
27	Development of a 6-DOF force display system using ER actuators with high-safety. , 2006, , .		7
28	Development of cylindrical magnetorheological fluid brake for virtual cycling system. , 2011, , .		7
29	Ankle supporter with elastomer-embedded flexible joint. , 2016, , .		7
30	Upper limb training/assessment program using passive force controllable rehabilitation system. , 2017, 2017, 505-510.		7
31	Development of Rehabilitation System for Upper Limbs: PLEMO-P3 System for Hemiplegic Subject (Motor) Tj ETQq1 1 0.784314 rgBT of Robotics and Mechatronics, 2013, 25, 136-144.	1.0	7
32	3-D Rehabilitation Systems for Upper Limbs Using ER Actuators/Brakes with High Safety: "EMUL", "Robotherapist" and "PLEMO". , 2007, , .		6
33	“Hybrid-PLEMO“, rehabilitation system for upper limbs with active / passive force feedback, and its application for facilitation techniques. , 2009, , .		6
34	Development of Rehabilitation System for Upper Limbs; PLEMO-P3 System for Hemiplegic Subject : Motor Function Test for Assessment and Training, and Research for Development of Practical Type(Mechanical Systems). <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 2010, 76, 323-330.	0.2	6
35	Development of bio-inspired knee joint for power assist suit. , 2015, , .		6
36	Novel ankle orthosis with elastomer-embedded flexible joint. , 2017, 2017, 1124-1129.		6

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37	The development and clinical evaluation of an intelligent ankle foot orthosis using compact type MR fluid brakes. Journal of the Society of Biomechanisms, 2010, 34, 124-131.	0.0	6
38	Development of High-Speed/High-Torque MR Actuator Using Silicon Steel Sheet. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2004, 70, 2886-2893.	0.2	5
39	Design and Development of Compact Magnetorheological Fluid Clutch (CMRFC) with Multi-layered Disks and Micro-sized Gaps. Nihon Reorogi Gakkaishi, 2010, 38, 17-22.	1.0	5
40	Design and evaluation of unit for haptic device on foot. , 2012, , .		5
41	Development of control model for intelligently controllable ankle-foot orthosis. , 2013, 2013, 330-3.		5
42	Gait Analysis with Automatic Speed-Controlled Treadmill. Journal of Robotics and Mechatronics, 2015, 27, 528-534.	1.0	5
43	Development of Ankle Support Shoes with Elastomer-Embedded Flexible Joints. Journal of Robotics and Mechatronics, 2020, 32, 1080-1087.	1.0	5
44	Development of virtual reality bike with cylindrical MR fluid brake. , 2012, , .		4
45	Motor function assessment for upper limb with virtual wiping program of rehabilitation system SEMUL. , 2015, , .		4
46	Durability test device for MR fluids with permanent magnet and V-shaped groove. Smart Materials and Structures, 2017, 26, 054004.	3.5	4
47	Effects of Field Strength and Sample Size on Magnetomechanical Response for Magnetic Elastomers by Using Permanent Magnets. Chemistry Letters, 2017, 46, 547-549.	1.3	4
48	Design of Polycentric Assistive Device for Knee Joint. , 2021, , .		4
49	Isokinetic Exercise Training and Evaluation System Using Particle-Type ER Fluid.. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2002, 68, 2418-2424.	0.2	3
50	Isokinetic Exercise Training and Evaluation System Aimed High Velocity Training (The System Using ER) Tj ETQq0 0 0 rgBT /Overlock 10 T Engineers, Part C, 2003, 69, 2723-2728.	0.2	3
51	Quasi-3DOF Active / Passive Hybrid Rehabilitation System for Upper Limbs: "Hybrid-PLEMO". Journal of System Design and Dynamics, 2009, 3, 768-780.	0.3	3
52	Preliminary experimental evaluation using a leg-shaped haptic simulator to quantify the diagnosing technique of ankle clonus. , 2010, , .		3
53	Particle sedimentation in magnetorheological fluid and its effect. , 2017, , .		3
54	Development of rehabilitation robot for hand âœœReRoHâœ•, , 2017, , .		3

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55	Ankle-foot orthosis using elastomer-embedded flexible joint. , 2017, 2017, 4499-4502.		3
56	Sensibility Assessment For User Interface And Training Program Of An Upper-Limb Rehabilitation Robot, D-SEMUL. , 2018, 2018, 3028-3031.		3
57	Low inertia torque controllable device using magnetorheological fluid & umbrella-shaped rotor. Engineering Research Express, 2019, 1, 025022.	1.6	3
58	Gait Measurement for Walking Support Shoes with Elastomer-Embedded Flexible Joint. , 2019, , .		3
59	ER EFFECT OF LOW MOLECULAR LIQUID CRYSTAL ON ONE-SIDED PATTERNED ELECTRODES. International Journal of Modern Physics B, 2007, 21, 4988-4995.	2.0	2
60	3-D/Quasi-3-D rehabilitation systems for upper limbs using ER actuators with high safety. , 2007, , .		2
61	Quasi-3 DOF Active-Passive Hybrid Rehabilitation System for Upper Limbs "Hybrid-PLEMO". Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2008, 74, 2099-2106.	0.2	2
62	Basic study on prediction of initial contact for intelligently controlled Ankle Foot Orthosis (I-AFO). , 2009, , .		2
63	Torque control of Virtual Bike with magnetorheological fluid brake and sensory evaluation for difference threshold of pedal resistance. , 2012, , .		2
64	Framework and software to build large scale digital city for virtual walking / cycling system. , 2014, , .		2
65	Development of ankle supporter with elastomer-embedded flexible joint. Transactions of the JSME (in) Tj ETQq1 1 0,784314 rgBT /Over	0.2	2
66	Torque-controllable device using a magnetorheological fluid with nano-sized iron particles for a haptic device. , 2017, , .		2
67	Scissors-Type Haptic Device Using Magnetorheological Fluid Containing Iron Nanoparticles. Technologies, 2019, 7, 26.	5.1	2
68	Velocity Control of Brake Using Particle-Type ER Fluid and Its Application to Isokinetic Exercise System. The Proceedings of the International Conference on Motion and Vibration Control, 2002, 6.2, 837-842.	0.0	2
69	How to Use Magnetorheological Fluid for Robotics and Mechatronics. Journal of the Robotics Society of Japan, 2013, 31, 469-472.	0.1	2
70	Frequency spectra of vibration transmissibility for magnetic elastomers with various plasticizer contents. AIMS Materials Science, 2018, 5, 44-53.	1.4	2
71	TOTAL FORCE CALCULATION METHOD FOR ER EFFECT OF LIQUID CRYSTALLINE POLYMER ON ONE-SIDED PATTERNED ELECTRODE SYSTEM. International Journal of Modern Physics B, 2005, 19, 1256-1262.	2.0	1
72	Development of the needle-insertion system for path-error correction in liver environment using a CMTD(Curved Multi-Tubed Device). , 2008, , .		1

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73	Development of isokinetic exercise system using high performance MR fluid brake. , 2009, , .		1
74	Simulation of clonic movement with leg-robot driven by Compact MR Fluid Clutch. , 2009, , .		1
75	Evaluation System of Tracking Training for Upper Limbs Using 3D Rehabilitation Robot "EMUL" and Near Infrared Spectroscopy "NIRS"(Mechanical Systems). Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2010, 76, 942-948.	0.2	1
76	Dynamics simulation of a neuromuscular model of ankle clonus for neurophysiological education by a leg-shaped haptic simulator. , 2010, , .		1
77	Intelligently Controllable Walker with Magnetorheological Fluid Brake. Transactions of the Society of Instrument and Control Engineers, 2012, 48, 37-44.	0.2	1
78	Contribution of senses of foot for identification of shape, elasticity and tilt angle of ground. , 2013, , .		1
79	Adjustable sheet for intelligent seating system. , 2014, , .		1
80	Burden-Reducing Shoes with Elastomer-Embedded Flexible Joint. , 2018, , .		1
81	Development of Leg Robot for Simulation of Spastic Movement with Compact MR Fluid Clutch. Journal of the Robotics Society of Japan, 2009, 27, 933-941.	0.1	1
82	Seating System with Adjustable Sheet and Body Surface Measurement. Journal of Robotics and Mechatronics, 2016, 28, 79-85.	1.0	1
83	Development of Durability Test Device for Magnetorheological Fluids with Two Types of Rotors and Their Long-Term Torque Characteristics. Actuators, 2022, 11, 142.	2.3	1
84	Selective Polishing Using Liquid Crystalline Polymer on One-Sided Patterned Electrodes (1st Report, ER) Tj ETQq0 0 0 rgBT /Overlock 10 Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2005, 71, 2629-2634.	0.2	0
85	ER Effect of Low Molecular Liquid Crystal on One-sided Patterned Electrodes. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2006, 72, 1967-1973.	0.2	0
86	Development of the needle-insertion system for path-error correction using a CMTD(Curved) Tj ETQq0 0 0 rgBT /Overlock 10 Jf 50 222 T		
87	Effect of High-Stiffness Timing Belt for Oscillation Damping in Position Control of Robotic Arm. Journal of the Japan Society for Precision Engineering, 2010, 76, 1043-1048.	0.1	0
88	GAP-SIZE EFFECT OF THE COMPACT MR FLUID BRAKE. , 2011, , .		0
89	Measurement of plantar pressure and development of prototype for haptic device on sole of foot with magnetic field sensitive elastomer. , 2012, , .		0
90	Experimental Investigation of Multiple Coils Magnetorheological Damper under Dynamic Loadings. Applied Mechanics and Materials, 0, 660, 863-867.	0.2	0

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91	Human-Friendly Mechatronics Systems with Functional Fluids and Elastomers. Advances in Bioinformatics and Biomedical Engineering Book Series, 0, , 94-101.	0.4	0
92	Human-Friendly Mechatronics Systems with Functional Fluids and Elastomers. , 0, , 1292-1299.		0
93	Evaluation system for haptic MR fluid device for teleoperation endoscopic surgery system. The Proceedings of JSME Annual Conference on Robotics and Mechatronics (Robomec), 2021, 2021, 1P2-C02.	0.0	0
94	Light weight Multi-layered Discal MR Fluid Clutch for Handheld Haptic Device. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2021, 2021.7, GS3-2.	0.0	0