Zenji Horita

List of Publications by Year in Descending Order

336 papers	22,061 citations	76 h-index	139 g-index
344 ext. papers	23,664 ext. citations	3.8 avg, IF	7 L-index

#	Paper	IF	Citations
336	Phase transformations in Al-Ti-Mg powders consolidated by high-pressure torsion: Experiments and first-principles calculations. *Journal of Alloys and Compounds*, **2022**, 889, 161815	5.7	3
335	Nanomaterials by severe plastic deformation: review of historical developments and recent advances. *Materials Research Letters*, **2022**, 10, 163-256	7.4	26
334	Structural and thermoelectric properties of CH3NH3SnI3 perovskites processed by applying high pressure with shear strain. *Materials Research Letters*, **2022**, 10, 521-529	7.4	
333	Complex interactions between precipitation, grain growth and recrystallization in a severely deformed Al-Zn-Mg-Cu alloy and consequences on the mechanical behavior. *Materialia*, **2021**, 15, 101028	3.2	2
332	Synchrotron X-ray diffraction observation of phase transformation during annealing of Si processed by high-pressure torsion. *Philosophical Magazine Letters*, **2021**, 101, 223-231	1	3
331	Continuous high-pressure torsion of pure Al and Al-2 wt% Fe alloy using multi-wires. *Journal of Materials Science*, **2021**, 56, 8679-8688	4.3	0
330	In Situ Synchrotron X-ray Analysis: Application of High-Pressure Sliding Process to Ti Allotropic Transformation. *Materials Transactions*, **2021**, 62, 167-176	1.3	4
329	Homogeneous Strain Introduction Using Reciprocation Technique in High-Pressure Sliding. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 3860-3870	2.3	
328	Influence of High Pressure Sliding and Rotary Swaging on Creep Behavior of P92 Steel at 500 °C. *Metals*, **2021**, 11, 2044	2.3	0
327	The Effect of Predeformation on Creep Strength of 9% Cr Steel. *Materials*, **2020**, 13,	3.5	2
326	High-pressure torsion to induce oxygen vacancies in nanocrystals of magnesium oxide: Enhanced light absorbance, photocatalysis and significance in geology. *Materialia*, **2020**, 11, 100670	3.2	7
325	Severe Plastic Deformation under High Pressure: Upsizing Sample Dimensions. *Materials Transactions*, **2020**, 61, 1177-1190	1.3	21
324	Magnetic measurements of hydrogen desorption from palladium hydride PdH0.64 prepared by severe plastic deformation. *Journal of Applied Physics*, **2020**, 127, 215109	2.5	2
323	Improved Photocatalytic Hydrogen Evolution on Tantalate Perovskites CsTaO3 and LiTaO3 by Strain-Induced Vacancies. *ACS Applied Energy Materials*, **2020**, 3, 1710-1718	6.1	23
322	Photocatalytic hydrogen generation on low-bandgap black zirconia (ZrO2) produced by high-pressure torsion. *Journal of Materials Chemistry A*, **2020**, 8, 3643-3650	13	31
321	Fatigue Property and Cytocompatibility of a Biomedical Co□Cr□Mo Alloy Subjected to a High Pressure Torsion and a Subsequent Short Time Annealing. *Materials Transactions*, **2020**, 61, 361-367	1.3	4
320	Severe Plastic Deformation for Nanostructure Controls. *Materials Transactions*, **2020**, 61, 2241-2247	1.3	7

319	Effects of Grain Refinement and Predeformation Impact by Severe Plastic Deformation on Creep in P92 Martensitic Steel. *Advanced Engineering Materials*, **2020**, 22, 1900448	3.5	6
318	Phase transformations, vacancy formation and variations of optical and photocatalytic properties in TiO2-ZnO composites by high-pressure torsion. *International Journal of Plasticity*, **2020**, 124, 170-185	7.6	28
317	Enhanced photocatalytic hydrogen production on GaN□ZnO oxynitride by introduction of strain-induced nitrogen vacancy complexes. *Acta Materialia*, **2020**, 185, 149-156	8.4	28
316	High-pressure torsion of SiO2 quartz sand: Phase transformation, optical properties, and significance in geology. *Journal of the American Ceramic Society*, **2020**, 103, 6594-6602	3.8	6
315	Formation of metastable bc8 phase from crystalline Si0.5Ge0.5 by high-pressure torsion. *Materials Characterization*, **2020**, 169, 110590	3.9	6
314	Correlation between TEM, SAXS and DSC to investigate the influence of SPD on precipitation mechanisms of an Al-Zn-Mg-Cu alloy. *MATEC Web of Conferences*, **2020**, 326, 08006	0.3	
313	Phase Transformations in MgH2□TiH2 Hydrogen Storage System by High-Pressure Torsion Process. *Advanced Engineering Materials*, **2020**, 22, 1900027	3.5	19
312	Microstructural details of hydrogen diffusion and storage in Ti□V□Cr alloys activated through surface and bulk severe plastic deformation. *International Journal of Hydrogen Energy*, **2020**, 45, 5326-5336	6.7	13
311	Microstructures and the Mechanical Properties of the Al□Li□Cu Alloy Strengthened by the Combined Use of Accumulative Roll Bonding and Aging. *Advanced Engineering Materials*, **2020**, 22, 1900561	3.5	3
310	Grain refinement and superplasticity of pipes processed by high-pressure sliding. *Materials Science and Technology*, **2020**, 36, 877-886	1.5	5
309	Photocatalytic activity of aluminum oxide by oxygen vacancy generation using high-pressure torsion straining. *Scripta Materialia*, **2019**, 173, 120-124	5.6	15
308	Structure and mechanical behavior of ultrafine-grained aluminum-iron alloy stabilized by nanoscaled intermetallic particles. *Acta Materialia*, **2019**, 167, 89-102	8.4	32
307	Hydrostatic pressure effects on superconducting transition of nanostructured niobium highly strained by high-pressure torsion. *Journal of Applied Physics*, **2019**, 125, 125901	2.5	6
306	Impact of TiO2-II phase stabilized in anatase matrix by high-pressure torsion on electrocatalytic hydrogen production. *Materials Research Letters*, **2019**, 7, 334-339	7.4	15
305	Production of Superplastic Ti□Al□Nb Alloy Using High-Pressure Sliding Process. *Materials Transactions*, **2019**, 60, 1785-1791	1.3	3
304	Hydrostatic Compression Effects on Fifth-Group Element Superconductors V, Nb, and Ta Subjected to High-Pressure Torsion. *Materials Transactions*, **2019**, 60, 1472-1483	1.3	10
303	Multi-pass high-pressure sliding (MP-HPS) for grain refinement and superplasticity in metallic round rods. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 748, 108-118	5.3	14
302	Critical Temperature in Bulk Ultrafine-Grained Superconductors of Nb, V, and Ta Processed by High-Pressure Torsion. *Materials Transactions*, **2019**, 60, 1367-1376	1.3	9

301	Low-temperature anatase-to-rutile phase transformation and unusual grain coarsening in titanium oxide nanopowders by high-pressure torsion straining. *Scripta Materialia*, **2019**, 162, 341-344	5.6	17
300	Microstructure and phase transformations of silica glass and vanadium oxide by severe plastic deformation via high-pressure torsion straining. *Journal of Alloys and Compounds*, **2019**, 779, 394-398	5.7	14
299	High-pressure torsion of iron with various purity levels and validation of Hall-Petch strengthening mechanism. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 743, 597-605	5.3	27
298	Design and synthesis of a magnesium alloy for room temperature hydrogen storage. *Acta Materialia*, **2018**, 149, 88-96	8.4	101
297	Incremental Feeding High-Pressure Sliding for Grain Refinement of Large-Scale Sheets: Application to Inconel 718. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 1830-1840	2.3	19
296	High-pressure torsion for new hydrogen storage materials. *Science and Technology of Advanced Materials*, **2018**, 19, 185-193	7.1	32
295	Grain growth in nanograined aluminum oxide by high-pressure torsion: Phase transformation and plastic strain effects. *Scripta Materialia*, **2018**, 152, 11-14	5.6	16
294	Effect of gradient-structure versus uniform nanostructure on hydrogen storage of Ti-V-Cr alloys: Investigation using ultrasonic SMAT and HPT processes. *Journal of Alloys and Compounds*, **2018**, 737, 337-346	5.7	21
293	Effect of temperature rise on microstructural evolution during high-pressure torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 714, 167-171	5.3	50
292	Transition from poor ductility to room-temperature superplasticity in a nanostructured aluminum alloy. *Scientific Reports*, **2018**, 8, 6740	4.9	37
291	Hydrolytic Hydrogen Production on Al?Sn?Zn Alloys Processed by High-Pressure Torsion. *Materials*, **2018**, 11,	3.5	11
290	The Effect of Ultrafine-Grained Microstructure on Creep Behaviour of 9% Cr Steel. *Materials*, **2018**, 11,	3.5	12
289	Combination of High-Pressure Torsion with Incremental Feeding for Upsizing Sample. *Materials Transactions*, **2018**, 59, 1009-1012	1.3	7
288	Thermal Conductivity Reduction of Bulk GaAs using Giant Strain. *The Proceedings of the Thermal Engineering Conference*, **2018**, 2018, 0176	0	
287	PM-22Microstructure observation of HPT processed Al-2.5mass%Li(-2.0mass%Cu) alloy. *Microscopy (Oxford, England)*, **2018**, 67, i46-i46	1.3	
286	Low-Temperature and High-Strain-Rate Superplasticity of Ultrafine-Grained A7075 Processed by High-Pressure Torsion. *Materials Transactions*, **2018**, 59, 1341-1347	1.3	2
285	Developing high-performance light metallic materials through microstructural refinement using severe plastic deformation. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2018**, 68, 407-417	0.3	
284	Incremental Feeding High-Pressure Sliding for Achieving Large Area of Severe Plastic Deformation. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2018**, 82, 25-31	0.4	9

283	New MgVCr BCC Alloys Synthesized by High-Pressure Torsion and Ball Milling. *Materials Transactions*, **2018**, 59, 741-746	1.3	12
282	Crystal and electronic structural changes during annealing in severely deformed Si containing metastable phases formed by high-pressure torsion. *Applied Physics Letters*, **2018**, 113, 101904	3.4	9
281	Long-time stability of metals after severe plastic deformation: Softening and hardening by self-annealing versus thermal stability. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 729, 340-348	5.3	31
280	High-resolution transmission electron microscopy analysis of bulk nanograined silicon processed by high-pressure torsion. *Materials Characterization*, **2017**, 129, 163-168	3.9	17
279	Room-Temperature Superplasticity in an Ultrafine-Grained Magnesium Alloy. *Scientific Reports*, **2017**, 7, 2662	4.9	68
278	Hydrogen diffusion in ultrafine-grained iron with the body-centered cubic crystal structure. *Philosophical Magazine Letters*, **2017**, 97, 158-168	1	2
277	Electrical resistivity mapping of titanium and zirconium discs processed by high-pressure torsion for homogeneity and phase transformation evaluation. *Journal of Materials Science*, **2017**, 52, 6778-6788	4.3	10
276	Phase transformation of germanium by processing through high-pressure torsion: strain and temperature effects. *Philosophical Magazine Letters*, **2017**, 97, 27-34	1	17
275	Extra Strengthening and Superplasticity of Ultrafine-Grained A2024 Alloy Produced by High-Pressure Sliding. *Materials Transactions*, **2017**, 58, 1647-1655	1.3	5
274	High-resolution transmission electron microscopy analysis of nanograined germanium produced by high-pressure torsion. *Materials Characterization*, **2017**, 132, 132-138	3.9	16
273	High-pressure zinc oxide phase as visible-light-active photocatalyst with narrow band gap. *Journal of Materials Chemistry A*, **2017**, 5, 20298-20303	13	76
272	Strengthening of A2024 alloy by high-pressure torsion and subsequent aging. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 704, 112-118	5.3	27
271	Contactless measurement of electrical conductivity for bulk nanostructured silver prepared by high-pressure torsion: A study of the dissipation process of giant strain. *Journal of Applied Physics*, **2017**, 122, 125105	2.5	2
270	Ultra-severe plastic deformation: Evolution of microstructure, phase transformation and hardness in immiscible magnesium-based systems. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 701, 158-166	5.3	45
269	High-pressure torsion of aluminum with ultrahigh purity (99.9999%) and occurrence of inverse Hall-Petch relationship. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 679, 428-434	5.3	51
268	Superplasticity of Inconel 718 after processing by high-pressure sliding (HPS). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 682, 603-612	5.3	20
267	Development of ultra high strength (1GPa) aluminum alloy using severe plastic deformation under high pressure. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2017**, 67, 519-520	0.3	
266	Fabrication of high-strength and high-ductility laminated A2024 aluminum alloy/aluminum composite by severe plastic deformation under high pressure. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2017**, 67, 179-185	0.3	

265	Thermal conductivity reduction of bulk Si and Si/Ge material prepared by HPT process. *The Proceedings of Conference of Kyushu Branch*, **2017**, 2017.70, 104	0	
264	Allotropic phase transformation and photoluminescence of germanium nanograins processed by high-pressure torsion. *Journal of Materials Science*, **2016**, 51, 138-143	4.3	16
263	Optimization of Microstructure and Mechanical Properties of Co□Cr□Mo Alloys by High-Pressure Torsion and Subsequent Short Annealing. *Materials Transactions*, **2016**, 57, 1887-1896	1.3	7
262	Visible-Light-Driven Photocatalytic Hydrogen Generation on Nanosized TiO2-II Stabilized by High-Pressure Torsion. *ACS Catalysis*, **2016**, 6, 5103-5107	13.1	56
261	Severe Plastic Deformation under High Pressure for Production of Superplastic Materials. *Materials Science Forum*, **2016**, 838-839, 287-293	0.4	2
260	A review on high-pressure torsion (HPT) from 1935 to 1988. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 652, 325-352	5.3	315
259	New nanostructured phases with reversible hydrogen storage capability in immiscible magnesium□irconium system produced by high-pressure torsion. *Acta Materialia*, **2016**, 108, 293-303	8.4	54
258	Microstructural evolution and mechanical properties of biomedical Co-Cr-Mo alloy subjected to high-pressure torsion. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 59, 226-235	4.1	18
257	Producing Bulk Ultrafine-Grained Materials by Severe Plastic Deformation: Ten Years Later. *Jom*, **2016**, 68, 1216-1226	2.1	268
256	Solid-state reactions and hydrogen storage in magnesium mixed with various elements by high-pressure torsion: experiments and first-principles calculations. *RSC Advances*, **2016**, 6, 11665-11674	3.7	15
255	Cytocompatibility of Ti□Al□Nb through High-Pressure Torsion Processing. *Materials Transactions*, **2016**, 57, 2020-2025	1.3	5
254	Grain Refinement Mechanism and Evolution of Dislocation Structure of Co□Cr□Mo Alloy Subjected to High-Pressure Torsion. *Materials Transactions*, **2016**, 57, 1109-1118	1.3	12
253	Hydrogen Embrittlement of Ultrafine-grained Austenitic Stainless Steels Processed by High-pressure Torsion at Moderate Temperature. *ISIJ International*, **2016**, 56, 1083-1090	1.7	6
252	Scaling up of High-Pressure Sliding (HPS) for Grain Refinement and Superplasticity. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2016**, 47, 4669-4681	2.3	30
251	Large enhancement of superconducting transition temperature in single-element superconducting rhenium by shear strain. *Scientific Reports*, **2016**, 6, 36337	4.9	24
250	Real Hydrostatic Pressure in High-Pressure Torsion Measured by Bismuth Phase Transformations and FEM Simulations. *Materials Transactions*, **2016**, 57, 533-538	1.3	29
249	Hydrogen generation from pure water using Al-Sn powders consolidated through high-pressure torsion. *Journal of Materials Research*, **2016**, 31, 775-782	2.5	13
248	Activation of titanium-vanadium alloy for hydrogen storage by introduction of nanograins and edge dislocations using high-pressure torsion. *International Journal of Hydrogen Energy*, **2016**, 41, 8917-8924	6.7	34

247	Strengthening of AA7075 alloy by processing with high-pressure sliding (HPS) and subsequent aging. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 628, 56-61	5.3	29
246	Ultrafine-grained magnesium–lithium alloy processed by high-pressure torsion: Low-temperature superplasticity and potential for hydroforming. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 640, 443-448	5.3	66
245	High-pressure torsion of metastable austenitic stainless steel at moderate temperatures. *Philosophical Magazine Letters*, **2015**, 95, 269-276	1	5
244	Aging Behavior of Al 6061 Alloy Processed by High-Pressure Torsion and Subsequent Aging. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 2664-2673	2.3	22
243	Age Hardening in Ultrafine-Grained Al-2 Pct Fe Alloy Processed by High-Pressure Torsion. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 2614-2624	2.3	11
242	Plastic Deformation of BaTiO3 Ceramics by High-pressure Torsion and Changes in Phase Transformations, Optical and Dielectric Properties. *Materials Research Letters*, **2015**, 3, 216-221	7.4	52
241	Grain refinement and high strain rate superplasticity in alumunium 2024 alloy processed by high-pressure torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 622, 139-145	5.3	52
240	Achieving Superplasticity of Ultrafine-Grained Rod-Like AZ61 Alloy Using High-Pressure Sliding. *Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals*, **2015**, 80, 128-133	0.4	5
239	High Resolution TEM Observation of Nanocrystalline Silicon Fabricated by High Pressure Torsion (HPT). *Microscopy and Microanalysis*, **2015**, 21, 1783-1784	0.5	
238	High Strength and Electrical Conductivity of Al-Fe Alloys Produced by Synergistic Combination of High-Pressure Torsion and Aging. *Advanced Engineering Materials*, **2015**, 17, 1792-1803	3.5	21
237	High-pressure torsion of thick Cu and Al–Mg–Sc ring samples. *Journal of Materials Science*, **2015**, 50, 4888-4897	2.3	5
236	High Strength and High Uniform Ductility in a Severely Deformed Iron Alloy by Lattice Softening and Multimodal-structure Formation. *Materials Research Letters*, **2015**, 3, 197-202	7.4	24
235	Formation of metastable phases in magnesium–titanium system by high-pressure torsion and their hydrogen storage performance. *Acta Materialia*, **2015**, 99, 150-156	8.4	52
234	Age hardening and thermal stability of Al–Cu alloy processed by high-pressure torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 627, 111-118	5.3	60
233	Influence of dislocation–solute atom interactions and stacking fault energy on grain size of single-phase alloys after severe plastic deformation using high-pressure torsion. *Acta Materialia*, **2014**, 69, 68-77	8.4	138
232	Nanograin formation of GaAs by high-pressure torsion. *Philosophical Magazine Letters*, **2014**, 94, 1-8	1	22
231	Thermal conductivity reduction of crystalline silicon by high-pressure torsion. *Nanoscale Research Letters*, **2014**, 9, 326	5	18
230	High-pressure torsion for fabrication of high-strength and high-electrical conductivity Al micro-wires. *Journal of Materials Science*, **2014**, 49, 6550-6557	4.3	28

229	Fabrication of nanograined silicon by high-pressure torsion. *Journal of Materials Science*, **2014**, 49, 6565-6569	4.5	26
228	Application of high-pressure torsion to Al-6 %Cu-0.4 %Zr alloy for ultrafine-grain refinement and superplasticity. *Journal of Materials Science*, **2014**, 49, 6689-6695	4.3	5
227	Strengthening of Cu□Ni□Si alloy using high-pressure torsion and aging. *Materials Characterization*, **2014**, 90, 62-70	3.9	39
226	High strength and superconductivity in nanostructured niobium□titanium alloy by high-pressure torsion and annealing: Significance of elemental decomposition and supersaturation. *Acta Materialia*, **2014**, 80, 149-158	8.4	22
225	Softening by severe plastic deformation and hardening by annealing of aluminum□zinc alloy: Significance of elemental and spinodal decompositions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 610, 17-27	5.3	35
224	Aging Behavior of Ultrafine-Grained Al–Mg–Si–X (X = Cu, Ag, Pt, Pd) Alloys Produced by High-Pressure Torsion. *Materials Transactions*, **2014**, 55, 640-645	1.3	4
223	Formation of FeNi with L10-ordered structure using high-pressure torsion. *Philosophical Magazine Letters*, **2014**, 94, 639-646	1	58
222	Effect of temperature on solid-state formation of bulk nanograined intermetallic Al3Ni during high-pressure torsion. *Philosophical Magazine*, **2014**, 94, 876-887	1.6	12
221	High-pressure torsion of titanium at cryogenic and room temperatures: Grain size effect on allotropic phase transformations. *Acta Materialia*, **2014**, 68, 207-213	8.4	62
220	Graphite to diamond-like carbon phase transformation by high-pressure torsion. *Applied Physics Letters*, **2013**, 103, 034108	3.4	17
219	Strengthening of Al through addition of Fe and by processing with high-pressure torsion. *Journal of Materials Science*, **2013**, 48, 4713-4722	4.3	24
218	Methods for Designing Concurrently Strengthened Severely Deformed Age-Hardenable Aluminum Alloys by Ultrafine-Grained and Precipitation Hardenings. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 3921-3933	2.3	37
217	Enhancement of Strength and Ductility of Al-Ag Alloys Processed by High-Pressure Torsion and Aging. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 3221-3231	2.3	8
216	Mechanism of activation of TiFe intermetallics for hydrogen storage by severe plastic deformation using high-pressure torsion. *Applied Physics Letters*, **2013**, 103, 143902	3.4	53
215	Superconducting properties in bulk nanostructured niobium prepared by high-pressure torsion. *Physica C: Superconductivity and Its Applications*, **2013**, 493, 132-135	1.3	21
214	Evolution of lattice defects, disordered/ordered phase transformations and mechanical properties in Ni□Al□Ti intermetallics by high-pressure torsion. *Journal of Alloys and Compounds*, **2013**, 563, 221-228	5.7	18
213	Maximizing Performance of Al-Fe Alloys Processed by High-Pressure Torsion with Optimized Initial Microstructure and Processing Route **2013**, 3323-3328		
212	Work Hardening Behavior of Aluminum over a Wide Range of Strain **2013**, 567-574		1

211	Developing Superplasticity at High Strain Rates through ECAP Processing **2013**, 459-468		
210	High-pressure torsion for enhanced atomic diffusion and promoting solid-state reactions in the aluminum□copper system. *Acta Materialia*, **2013**, 61, 3482-3489	8.4	132
209	High-pressure torsion of TiFe intermetallics for activation of hydrogen storage at room temperature with heterogeneous nanostructure. *International Journal of Hydrogen Energy*, **2013**, 38, 4622-4627	6.7	92
208	High-pressure torsion of pure cobalt: hcp-fcc phase transformations and twinning during severe plastic deformation. *Applied Physics Letters*, **2013**, 102, 181902	3.4	52
207	Dynamic recrystallization and recovery during high-pressure torsion: Experimental evidence by torque measurement using ring specimens. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 559, 506-509	5.3	29
206	Hydrogen behavior in ultrafine-grained palladium processed by high-pressure torsion. *International Journal of Hydrogen Energy*, **2013**, 38, 14879-14886	6.7	7
205	Grain Refinement of Copper Based Alloys Using ECAP **2013**, 447-458		
204	Processing of an Aluminum-6061 Metal Matrix Composite by Equal-Channel Angular Pressing **2013**, 173-182		
203	Application of High-Pressure Torsion to WC–Co Ceramic-Based Composites for Improvement of Consolidation, Microstructure and Hardness. *Materials Transactions*, **2013**, 54, 1540-1548	1.3	14
202	Effects of High-Pressure Torsion on the Pitting Corrosion Resistance of Aluminum–Iron Alloys. *Materials Transactions*, **2013**, 54, 1642-1649	1.3	10
201	Continuous high-pressure torsion using wires. *Journal of Materials Science*, **2012**, 47, 473-478	4.3	35
200	Effects of ball milling and high-pressure torsion for improving mechanical properties of Al□Al2O3 nanocomposites. *Journal of Materials Science*, **2012**, 47, 7821-7827	4.3	19
199	Ultrahigh strength and high plasticity in TiAl intermetallics with bimodal grain structure and nanotwins. *Scripta Materialia*, **2012**, 67, 814-817	5.6	83
198	Powder consolidation of Al□10 wt% Fe alloy by High-Pressure Torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 558, 462-471	5.3	54
197	Mechanical Properties and Microstructures of Al-Fe Alloys Processed by High-Pressure Torsion. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 5182-5192	2.3	40
196	Effect of Equal-Channel Angular Pressing on Pitting Corrosion of Pure Aluminum. *International Journal of Corrosion*, **2012**, 2012, 1-9	2	12
195	Production of Al/Al2O3 Nanocomposites through Consolidation by High-Pressure Torsion. *Materials Transactions*, **2012**, 53, 13-16	1.3	25
194	Phase transformation and nanograin refinement of silicon by processing through high-pressure torsion. *Applied Physics Letters*, **2012**, 101, 121908	3.4	50

193	Simultaneous strengthning due to grain refinement and fine precipitation. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2012**, 62, 398-405	0.3	6
192	Aging behavior of ultrafine-grained Al^|^ndash;Mg^|^ndash;Si^|^ndash;X (X=Cu, Ag, Pt, Pd) alloys produced by high-pressure torsion. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2012**, 62, 448-453	0.3	1
191	Grain refinement and high strengthening of 7075 aluminum alloy by high-pressure sliding. *Keikinzoku/Journal of Japan Institute of Light Metals*, **2012**, 62, 454-458	0.3	10
190	Equal-Channel Angular Pressing and High-Pressure Torsion of Pure Copper: Evolution of Electrical Conductivity and Hardness with Strain. *Materials Transactions*, **2012**, 53, 123-127	1.3	65
189	Strengthening via Microstructure Refinement in Bulk Al–4 mass% Fe Alloy Using High-Pressure Torsion. *Materials Transactions*, **2012**, 53, 46-55	1.3	21
188	Hydrogen Effects on Ultrafine-Grained Steels Processed by High-Pressure Torsion. *Materials Transactions*, **2012**, 53, 773-785	1.3	17
187	High-Pressure Torsion for Pure Chromium and Niobium. *Materials Transactions*, **2012**, 53, 38-45	1.3	38
186	Effects of Low Rotational Speed on Crystal Orientation of Bi2Te3-Based Thermoelectric Semiconductors Deformed by High-Pressure Torsion. *Materials Transactions*, **2012**, 53, 588-591	1.3	5
185	Microstructures and Mechanical properties of Al-Al2O3 Composites Processed by Disk-HPT and Ring-HPT **2012**, 1011-1016		
184	Correlations between hardness and atomic bond parameters of pure metals and semi-metals after processing by high-pressure torsion. *Scripta Materialia*, **2011**, 64, 161-164	5.6	53
183	High-pressure torsion of pure magnesium: Evolution of mechanical properties, microstructures and hydrogen storage capacity with equivalent strain. *Scripta Materialia*, **2011**, 64, 880-883	5.6	196
182	Plastic deformation and allotropic phase transformations in zirconia ceramics during high-pressure torsion. *Scripta Materialia*, **2011**, 65, 974-977	5.6	78
181	High-pressure torsion of pure metals: Influence of atomic bond parameters and stacking fault energy on grain size and correlation with hardness. *Acta Materialia*, **2011**, 59, 6831-6836	8.4	161
180	Microstructural evolution in an aluminum solid solution alloy processed by ECAP. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 6059-6065	5.3	58
179	Significance of homologous temperature in softening behavior and grain size of pure metals processed by high-pressure torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 7514-7523	5.3	137
178	Effect of Hydrogen on Tensile Properties of Ultrafine-Grained Type 310S Austenitic Stainless Steel Processed by High-Pressure Torsion. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 1619-1629	2.3	15
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