

Robert Chulist

List of Publications by Year in descending order

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papers

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docs citations

114
times ranked

1099
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#	ARTICLE	IF	CITATIONS
1	Structural properties of Ti/Al clads manufactured by explosive welding and annealing. <i>Materials and Design</i> , 2016, 91, 80-89.	3.3	158
2	Over 7% magnetic field-induced strain in a Ni-Mn-Ga five-layered martensite. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	82
3	Microstructure and kinetics of intermetallic phase growth of three-layered A1050/AZ31/A1050 clads prepared by explosive welding combined with subsequent annealing. <i>Materials and Design</i> , 2017, 130, 120-130.	3.3	65
4	Characterization of mobile type I and type II twin boundaries in 10M modulated Ni-Mn-Ga martensite by electron backscatter diffraction. <i>Acta Materialia</i> , 2013, 61, 1913-1920.	3.8	64
5	Microstructure and phase constitution in the bonding zone of explosively welded tantalum and stainless steel sheets. <i>Materials and Design</i> , 2018, 153, 177-189.	3.3	57
6	Large magnetic field-induced work output in a NiMnGa seven-layered modulated martensite. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	49
7	Change in microstructure during training of a Ni ₅₀ Mn ₂₉ Ga ₂₁ bicrystal. <i>Scripta Materialia</i> , 2010, 63, 548-551.	2.6	48
8	Controlled Grain Refinement of Biodegradable Zn-Mg Alloy: The Effect of Magnesium Alloying and Multi-Pass Hydrostatic Extrusion Preceded by Hot Extrusion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 6784-6796.	1.1	45
9	High-temperature magnetic shape memory actuation in a Ni-Mn-Ga single crystal. <i>Scripta Materialia</i> , 2014, 83, 29-32.	2.6	43
10	Microstructure Changes and Phase Growth Occurring at the Interface of the Al/Ti Explosively Welded and Annealed Joints. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 3211-3217.	1.2	43
11	Growth kinetics of TiAl 3 phase in annealed Al/Ti/Al explosively welded clads. <i>Materials Letters</i> , 2017, 198, 160-163.	1.3	40
12	The effect of severe plastic deformation on the Mg properties after CEC deformation. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 761-768.	5.5	39
13	Detwinning of a non-modulated Ni-Mn-Ga martensite: From self-accommodated microstructure to single crystal. <i>Acta Materialia</i> , 2015, 85, 67-73.	3.8	37
14	2019, 171, 107703.	3.3	37
15	Martensitic transition, structure and magnetic anisotropy of λ -martensite in Ni-Mn-Sn single crystal. <i>Acta Materialia</i> , 2016, 118, 213-220.	3.8	35
16	The Effect of Interface Morphology on the Electro-Mechanical Properties of Ti/Cu Clad Composites Produced by Explosive Welding. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 750-766.	1.1	34
17	Texture transformations near the bonding zones of the three-layer Al/Ti/Al explosively welded clads. <i>Materials Characterization</i> , 2017, 129, 242-246.	1.9	33
18	Interfacial reactions and microstructure related properties of explosively welded tantalum and steel sheets with copper interlayer. <i>Materials and Design</i> , 2021, 208, 109873.	3.3	31

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19	Microstructure and texture in Ni ₅₀ Mn ₂₉ Ga ₂₁ deformed by high-pressure torsion. Scripta Materialia, 2010, 62, 650-653.	2.6	30
20	On the role of atomic shuffling in the 4O, 4M and 8M martensite structures in Ni-Mn-Sn single crystal. Scripta Materialia, 2020, 189, 106-111.	2.6	30
21	Microstructure-strength relationship of ultrafine-grained titanium manufactured by unconventional severe plastic deformation process. Journal of Alloys and Compounds, 2020, 837, 155576.	2.8	30
22	Orientation relationship between austenite and non-modulated martensite in Ni-Mn-Ga single crystals. Acta Materialia, 2016, 103, 836-843.	3.8	29
23	Effect of impact loading and heat treatment on microstructure and properties of multi-layered AZ31/AA1050 plates fabricated by single-shot explosive welding. Materials and Design, 2022, 214, 110411.	3.3	28
24	Modulation reorientation in 10M Ni-Mn-Ga martensite. Scripta Materialia, 2013, 68, 671-674.	2.6	26
25	Diffraction study of bending-induced polysynthetic twins in 10M modulated Ni-Mn-Ga martensite. Journal of Applied Physics, 2012, 112, .	1.1	25
26	Microstructure and properties of the interfacial region in explosively welded and post-annealed titanium-copper sheets. Materials Characterization, 2020, 167, 110520.	1.9	25
27	Towards a better understanding of the phase transformations in explosively welded copper to titanium sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 784, 139285.	2.6	25
28	High pressure torsion of Cu-Ag and Cu-Sn alloys: Limits for solubility and dissolution. Acta Materialia, 2020, 195, 184-198.	3.8	24
29	Cyclic fibre texture in hot extruded Ni ₅₀ Mn ₂₉ Ga ₂₁ . International Journal of Materials Research, 2012, 103, 575-579.	0.1	23
30	Structural modification and twinning stress reduction in a high-temperature Ni-Mn-Ga magnetic shape memory alloy. Applied Physics Letters, 2013, 103, .	1.5	23
31	Magnetostructural transition and magnetocaloric effect in highly textured Ni-Mn-Sn alloy. Journal of Applied Physics, 2016, 119, .	1.1	22
32	Structural and Mechanical Properties of Ti-Co Alloys Treated by High Pressure Torsion. Materials, 2019, 12, 426.	1.3	22
33	Microstructural and Phase Composition Differences Across the Interfaces in Al/Ti/Al Explosively Welded Clads. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4154-4165.	1.1	21
34	Twin boundaries in trained 10M Ni-Mn-Ga single crystals. Scripta Materialia, 2012, 67, 364-367.	2.6	20
35	Grain refinement of intermetallic compounds in the Cu-Sn system under high pressure torsion. Materials Letters, 2016, 179, 12-15.	1.3	20
36	Microstructural characterization and mechanical properties of in situ cast nanocomposites Al/TiC type. Journal of Materials Research and Technology, 2020, 9, 12707-12715.	2.6	20

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37	Processing Routes Toward Textured Polycrystals in Ferromagnetic Shape Memory Alloys. <i>Advanced Engineering Materials</i> , 2012, 14, 636-652.	1.6	19
38	Hierarchical twin microstructure in modulated 10M Ni-Mn-Ga single crystals. An analysis including shuffling of atomic layers. <i>International Journal of Plasticity</i> , 2020, 126, 102628.	4.1	19
39	Sn and Nb modified ultrafine Ti-based bulk alloys with high-strength and enhanced ductility. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	18
40	Phase transformations in a Cu Cr alloy induced by high pressure torsion. <i>Materials Characterization</i> , 2016, 114, 151-156.	1.9	18
41	Highly mobile twin boundaries in seven-layer modulated Ni-Mn-Ga-Fe martensite. <i>Scripta Materialia</i> , 2020, 178, 62-66.	2.6	18
42	Evolution of microstructure and crystallographic texture of Ni-Mn-Ga melt-spun ribbons exhibiting 1.15% magnetic field-induced strain. <i>Acta Materialia</i> , 2021, 219, 117237.	3.8	18
43	An in situ and ex situ study of β phase formation in a hypoeutectic Fe-based hardfacing alloy. <i>Materials and Design</i> , 2020, 188, 108438.	3.3	17
44	Self-accommodated and pre-strained martensitic microstructure in single-crystalline, metamagnetic Ni-Mn-Sn Heusler alloy. <i>Journal of Materials Science</i> , 2017, 52, 5600-5610.	1.7	16
45	Twin-induced stability and mechanical properties of pure magnesium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 749, 89-95.	2.6	15
46	Dissolution of Ag Precipitates in the Cu-8wt.%Ag Alloy Deformed by High Pressure Torsion. <i>Materials</i> , 2019, 12, 447.	1.3	15
47	Branched needle microstructure in Ni-Mn-Ga 10M martensite: EBSD study. <i>Acta Materialia</i> , 2017, 128, 113-119.	3.8	14
48	Superelastic behavior of a metamagnetic Ni-Mn-Sn single crystal. <i>Journal of Materials Science</i> , 2018, 53, 10383-10395.	1.7	14
49	Wetting of Sn-Zn-Ga and Sn-Zn-Na Alloys on Al and Ni Substrate. <i>Journal of Electronic Materials</i> , 2018, 47, 49-60.	1.0	14
50	Orthogonal shear process in Ni-Mn-Sn single crystal. <i>International Journal of Plasticity</i> , 2019, 114, 63-71.	4.1	14
51	Structural Properties of Interfacial Layers in Tantalum to Stainless Steel Clad with Copper Interlayer Produced by Explosive Welding. <i>Metals</i> , 2020, 10, 969.	1.0	14
52	Information on deformation mechanisms in nanocrystalline Pd-10% Au inferred from texture analysis. <i>Journal of Materials Science</i> , 2010, 45, 4571-4577.	1.7	13
53	Texture development in a nanocrystalline Pd-Au alloy studied by synchrotron radiation. <i>Scripta Materialia</i> , 2012, 66, 131-134.	2.6	13
54	Martensite stabilisation in single crystalline Ni-Mn-Ga and Ni-Mn-Sn magnetic shape memory alloys. <i>Materials Letters</i> , 2018, 230, 266-269.	1.3	13

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55	Influence of Dynamic Recrystallisation on Texture Formation in ECAP deformed Nickel. <i>Materials Science Forum</i> , 2007, 558-559, 575-580.	0.3	12
56	Effect of initial plastic strain on mechanical training of non-modulated Ni-Mn-Ga martensite structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 611, 313-319.	2.6	12
57	Residual stresses distribution, correlated with bending tests, within explosively welded Ti gr. 2/A1050 bimetal. <i>Materials Characterization</i> , 2018, 144, 461-468.	1.9	12
58	The effect of heat treatment on the precipitation hardening in FeNiCoAlTa single crystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 784, 139327.	2.6	12
59	Texture Heterogeneity in ECAP Deformed Copper. <i>Solid State Phenomena</i> , 0, 160, 47-54.	0.3	11
60	Structural behavior and magnetic properties of a Ni-Mn-Ga single crystal across the martensite/austenite two-phase region. <i>Acta Materialia</i> , 2015, 89, 32-40.	3.8	11
61	Non-conventional twins in five-layer modulated Ni-Mn-Ga martensite. <i>Scripta Materialia</i> , 2019, 162, 497-502.	2.6	11
62	Twinning Behaviour of Textured Polycrystalline Ni-Mn-Ga Alloy after Hot Extrusion. <i>Materials Science Forum</i> , 0, 635, 195-199.	0.3	10
63	Self-accommodation in polycrystalline 10M Ni-Mn-Ga martensite. <i>Journal of Materials Science</i> , 2014, 49, 3951-3955.	1.7	10
64	The ϵ phase transformations and thermal stability of Ti Co alloy treated by high pressure torsion. <i>Materials Characterization</i> , 2021, 173, 110937.	1.9	10
65	Microstructure and Magnetic Properties of Selected Laser Melted Ni-Mn-Ga and Ni-Mn-Ga-Fe Powders Derived from as Melt-Spun Ribbons Precursors. <i>Metals</i> , 2021, 11, 903.	1.0	10
66	Phase Transformation in 316L Austenitic Steel Induced by Fracture at Cryogenic Temperatures: Experiment and Modelling. <i>Materials</i> , 2021, 14, 127.	1.3	10
67	New Insights into the Intermartensitic Transformation and Over 11% Magnetic Field-Induced Strain in 14Ni-Mn-Ga Martensite. <i>Advanced Engineering Materials</i> , 2021, 23, 2100131.	1.6	9
68	The Effect of a Multiphase Microstructure on the Inverse Magnetocaloric Effect in Ni-Mn-Cr-Sn Metamagnetic Heusler Alloys. <i>Magnetochemistry</i> , 2017, 3, 24.	1.0	8
69	The intermetallics growth at the interface of explosively welded A1050/Ti gr. 2/A1050 clads in relation to the explosive material. <i>Archives of Civil and Mechanical Engineering</i> , 2018, 18, 1679-1685.	1.9	8
70	Origins of superparamagnetism in self-accommodated and trained Ni ₅₀ Mn _{37.5} Sn _{12.5} single crystal. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 514, 167190.	1.0	8
71	Microstructure and catalytic activity for selective hydrogenation of phenylacetylene of intermetallic Ni ₇₀ Ga ₃₀ , Ni ₇₀ In ₃₀ , and Ni ₇₀ Sn ₃₀ melt-spun alloys. <i>Intermetallics</i> , 2020, 122, 106797.	1.8	8
72	Dynamic Recrystallization and Its Effect on Superior Plasticity of Cold-Rolled Bioabsorbable Zinc-Copper Alloys. <i>Materials</i> , 2021, 14, 3483.	1.3	8

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73	Direction of modulation during twin boundary motion. <i>Scripta Materialia</i> , 2010, 62, 235-237.	2.6	7
74	Stage B workâ€hardening of magnesium single crystals. <i>Crystal Research and Technology</i> , 2011, 46, 439-442.	0.6	7
75	Asymmetric distribution of martensitic variants in non-modulated NiMnGa single crystals. <i>Journal of Materials Science</i> , 2016, 51, 10943-10948.	1.7	7
76	Synergistic effect of Mg addition and hydrostatic extrusion on microstructure and texture of biodegradable low-alloyed zinc. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 375, 012008.	0.3	7
77	Interfacial Phenomena between Liquid Ga-Based Alloys and Ni Substrate. <i>Journal of Electronic Materials</i> , 2019, 48, 5941-5947.	1.0	7
78	Studies on the Two-Step Aging Process of Fe-Based Shape Memory Single Crystals. <i>Materials</i> , 2020, 13, 1724.	1.3	7
79	Thermal stability and microhardness of metastable β' -phase in the Ti-3.3At.% Co alloy subjected to high pressure torsion. <i>Journal of Alloys and Compounds</i> , 2020, 834, 155132.	2.8	7
80	Omega Phase Formation in Tiâ€3wt.%Nb Alloy Induced by High-Pressure Torsion. <i>Materials</i> , 2021, 14, 2262.	1.3	6
81	Characterization of rapidly solidified Al-Mg-Sc alloys with Li addition. <i>Materials Characterization</i> , 2021, 178, 111290.	1.9	6
82	Flow softening, twinning and dynamic evolution of second phase particles in a rolled Mgâ€Y-Nd-Zr alloy under shear deformation mode. <i>Journal of Materials Research and Technology</i> , 2022, 18, 2368-2383.	2.6	6
83	Texture Evolution of HPT-Processed Ni₅₀Mn₂₉Ga₂₁. <i>Materials Science Forum</i> , 0, 702-703, 169-172.	0.3	5
84	Texture and microstructure of HPT-processed Fe-based shape memory alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 375, 012006.	0.3	5
85	Effect of B addition on the superelasticity in FeNiCoAlTa single crystals. <i>Materials and Design</i> , 2021, 197, 109225.	3.3	5
86	Texture-Based Optimization of Crystal Plasticity Parameters: Application to Zinc and Its Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 3257-3273.	1.1	5
87	Texture-Governed Cell Response to Severely Deformed Titanium. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 114-121.	2.6	5
88	Surface hardening of high- and medium-entropy alloys by mechanical attrition at room and cryogenic temperatures. <i>Applied Physics Letters</i> , 2021, 119, 201912.	1.5	5
89	Deformation twinning in polycrystalline NiMnGa alloys. <i>Journal of Physics: Conference Series</i> , 2010, 240, 012024.	0.3	4
90	Microstructure evolution and magnetic properties in Mn-rich Ni-(Co, Cu, Fe)-Mn-Sn Heusler base shape memory alloys. <i>Materials Chemistry and Physics</i> , 2019, 235, 121720.	2.0	4

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91	Microstructural response on nickel addition in rapidly solidified $\frac{1}{4}$ Fe-25Cr-xNi-5Mo-0.8C [x \in = 0, 6, 11, 15, 21 wt. %] hardfacing alloys. Journal of Alloys and Compounds, 2019, 787, 186-195.	2.8	4
92	Effect of heat treatment on the precipitation hardening in FeNiCoAlTaB shape memory alloys. International Journal of Materials Research, 2019, 110, 70-74.	0.1	4
93	Suppression and Recovery of Martensitic Transformation and Magnetism in Mechanically and Thermally Treated Magnetic Shape Memory Ni \sim Mn \sim Ga Melt Spun Ribbons. Advanced Engineering Materials, 0, , 2100075.	1.6	4
94	Microstructure Development in the Bonding Zone of Explosively Welded Ti and Cu Sheets. Materials Science Forum, 0, 1016, 1114-1120.	0.3	4
95	Titania coating formation on hydrostatically extruded pure titanium by micro-arc oxidation method. Journal of Materials Science and Technology, 2022, 111, 224-235.	5.6	4
96	Crystallographic characterization of catastrophic shear in submicron nickel at low temperatures. Journal of Physics: Conference Series, 2010, 240, 012150.	0.3	3
97	Influence of Additives on Texture Development of Submicro- and Nanocrystalline Nickel. Materials Science Forum, 0, 702-703, 928-931.	0.3	3
98	Influence of deformation temperature on texture evolution in HPT deformed NiAl. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012154.	0.3	3
99	Grain Refinement of AZ61 Alloy after ECAP Processing. Materials Science Forum, 0, 891, 372-376.	0.3	3
100	The Phase Transformations Induced by High-Pressure Torsion in Ti \in Nb-Based Alloys. Microscopy and Microanalysis, 2022, 28, 946-952.	0.2	3
101	Temperature dependence of twinning stress in Ni $_{49.5}$ Mn $_{38.4}$ Sn $_{12.2}$ single crystal. Journal of Applied Physics, 2019, 126, 145107.	1.1	2
102	Interfacial reactions and structural properties of explosively welded titanium/copper plates. IOP Conference Series: Materials Science and Engineering, 2020, 770, 012033.	0.3	2
103	Interfacial Reactions in the Bonding Zones of Explosively Welded Tantalum to Stainless Steel Sheets. Advanced Engineering Materials, 2021, 23, 2001521.	1.6	2
104	Low temperature deformation mechanisms of polycrystalline CoZr and Co $_{39}$ Ni $_{11}$ Zr $_{50}$ B2-type intermetallic compounds. Acta Materialia, 2022, 223, 117489.	3.8	2
105	Formation and Thermal Stability of the β -Phase in Ti \in Nb and Ti \in Mo Alloys Subjected to HPT. Materials, 2022, 15, 4136.	1.3	2
106	Equal-Channel Angular Pressing of NiAl. Materials Science Forum, 2010, 667-669, 39-44.	0.3	1
107	Influence of hydrostatic pressure on texture evolution in HPT deformed NiAl. IOP Conference Series: Materials Science and Engineering, 2015, 82, 012026.	0.3	1
108	Multiphase Microstructure and Extended Martensitic Phase Transformation in Directionally Solidified and Heat Treated Ni $_{44}$ Co $_{6}$ Mn $_{39}$ Sn $_{11}$ Metamagnetic Shape Memory Alloy. Minerals, Metals and Materials Series, 2018, , 263-267.	0.3	1

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109	A special single variant zone in directionally solidified Ni-Mn-Ga alloy. Scripta Materialia, 2019, 167, 105-109.	2.6	1
110	Fe-Co-B Soft Magnetic Ribbons: Crystallization Process, Microstructure and Coercivity. Materials, 2020, 13, 1639.	1.3	1
111	TiAl-based semi-finished material produced by reaction annealing of Ti/Al layered composite sheets. Materials Today Communications, 2022, 30, 103083.	0.9	1
112	Gradient microstructure in the bonding zone of explosively welded sheets. Procedia Manufacturing, 2020, 50, 689-695.	1.9	0
113	Suppression of β phase and its effect on mechanical behavior of melt-spun and annealed Ni-Mn-Ga high-temperature shape memory alloys. Materials Today Communications, 2020, 24, 101165.	0.9	0