Teresa CastÃ¡n

List of Publications by Year
in descending order

44 papers	1,001 citations	516710 16 h-index	434195 31 g-index
46 all docs	46 docs citations	46 times ranked	835 citing authors

#	Article	IF	Citations
1	Spin-glass nature of tweed precursors in martensitic transformations. Physical Review Letters, 1991, 67, 3630-3633.	7.8	167
2	Influence of Elastic Anisotropy on Structural Nanoscale Textures. Physical Review Letters, 2008, 100, 165707.	7.8	141
3	Modeling premartensitic effects inNi2MnGa: A mean-field and Monte Carlo simulation study. Physical Review B, 1999, 60, 7071-7084.	3.2	76
4	Multicaloric materials and effects. MRS Bulletin, 2018, 43, 295-299.	3.5	76
5	Giant multicaloric response of bulk <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mn>49</mml:mn></mml Physical Review B, 2017, 95, .	3.2	60
6	Ferroelastic Nanostructures and Nanoscale Transitions: Ferroics with Point Defects. MRS Bulletin, 2009, 34, 838-846.	3.5	49
7	Glassy behavior in martensites: Interplay between elastic anisotropy and disorder in zero-field-cooling/field-cooling simulation experiments. Physical Review B, 2009, 80, .	3.2	41
8	Degenerate Blume-Emery-Griffiths model for the martensitic transformation. Physical Review B, 1996, 53, 8915-8921.	3.2	33
9	Interfaces in ferroelastics: Fringing fields, microstructure, and size and shape effects. Physical Review B, 2009, 79, .	3.2	30
10	Thermodynamics of ferrotoroidic materials: Toroidocaloric effect. Physical Review B, 2012, 85, .	3.2	26
11	Tweed in martensites: a potential new spin glass. Physica Scripta, 1992, T42, 214-219.	2.5	24
12	Monte Carlo study of the growth ofL12-ordered domains in fccA3B binary alloys. Physical Review B, 1997, 55, 212-225.	3.2	23
13	Thermodynamics of multicaloric effects in multiferroic materials: application to metamagnetic shape-memory alloys and ferrotoroidics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150304.	3.4	23
14	Kinetics of domain growth, theory, and Monte Carlo simulations: A two-dimensional martensitic phase transition model system. Physical Review B, 1989, 40, 5069-5083.	3.2	20
15	State equation for shapeâ€memory alloys: Application to Cuâ€Znâ€Al. Journal of Applied Physics, 1989, 66, 2342-2348.	2.5	20
16	Monte Carlo study of the domain growth in nonstoichiometric two-dimensional binary alloys. Physical Review B, 1996, 54, 166-177.	3.2	16
17	Unified mean-field study of ferro- and antiferromagnetic behavior of the Ising model with external field. American Journal of Physics, 1997, 65, 907-913.	0.7	16
18	Comment on â€˜â€˜Kinetics of spinodal decomposition in the Ising model with vacancy diffusionâ€™â€™. Physical Review B, 1996, 53, 2886-2889.	3.2	15

#	Article	IF	Citations
19	Vacancy-assisted domain growth in asymmetric binary alloys: A Monte Carlo study. Physical Review B, 1999, 60, 3920-3927.	3.2	14
20	Effect of the vacancy interaction on antiphase domain growth in a two-dimensional binary alloy. Physical Review B, 1997, 56, 5261-5270.	3.2	11
21	Thermodynamics of stress-induced ferroelastic transitions: Influence of anisotropy and disorder. Physical Review B, 2010, 81, .	3.2	11
22	Magnetocaloric and barocaloric responses in magnetovolumic systems. Physical Review B, 2015, 91, .	3.2	11
23	Magnetic phase separation in ordered alloys. Physical Review B, 2001, 63, .	3.2	9
24	Intermittent dynamics in externally driven ferroelastics and strain glasses. Physical Review E, 2018, 98, .	2.1	9
25	Domain-growth kinetics and aspects of pinning: A Monte Carlo simulation study. Physical Review B, 1991, 43, 956-964.	3.2	8
26	Precursor nanoscale modulations in ferromagnets: Modeling and thermodynamic characterization. Physical Review B, 2005, 72, .	3.2	8
27	Ginzburgâ€"Landau modelling of precursor nanoscale textures in ferroelastic materials. Continuum Mechanics and Thermodynamics, 2012, 24, 619-627.	2.2	8
28	Diffusionless first-order phase transitions in systems with frozen configurational degrees of freedom. Physical Review B, 1991, 44, 6715-6722.	3.2	7
29	Development of a tight-binding potential for bcc Zr: Application to the study of vibrational properties. Physical Review B, 2001, 63, .	3.2	7
30	Precursor Nanoscale Textures in Ferroelastic Martensites. Springer Series in Materials Science, 2012, , 227-247.	0.6	7
31	Modelling magnetostructural textures in magnetic shapeâ€memory alloys: Strain and magnetic glass behaviour. Physica Status Solidi (B): Basic Research, 2014, 251, 2080-2087.	1.5	6
32	Kinetics of slow domain growth: Then=1/4 universality class. Physical Review B, 1990, 41, 4659-4662.	3.2	4
33	Monte Carlo simulation of interface alloying. Physical Review B, 1995, 51, 11369-11375.	3.2	4
34	Magnetostructural tweed in ferromagnetic Heusler shape-memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 916-918.	5.6	4
35	Recent progress in the thermodynamics of ferrotoroidic materials. Multiferroic Materials, 2015, 1, .	0.0	4
36	Precursor Nanoscale Textures in Ferroelastics: Interplay between Anisotropy and Disorder. Materials Science Forum, 2013, 738-739, 155-159.	0.3	3

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37	Modelling Shape-Memory Effects in Ferromagnetic Alloys. Shape Memory and Superelasticity, 2015, 1, 347-358.	2.2	3
38	Spatially correlated disorder in self-organized precursor magnetic nanostructures. Physical Review B, 2007, 76, .	3.2	2
39	Thermodynamics of Multiferroic Materials. Springer Series in Materials Science, 2014, , 73-108.	0.6	2
40	Statisticoâ€thermodynamic properties of a binary alloy. American Journal of Physics, 1995, 63, 261-267.	0.7	1
41	Spatially correlated disorder in striped precursor magnetic modulations. Journal of Magnetism and Magnetic Materials, 2007, 310, 2641-2643.	2.3	1
42	Multiferroic and Related Hysteretic Behavior in Ferromagnetic Shape Memory Alloys. Physica Status Solidi (B): Basic Research, 2018, 255, 1700327.	1.5	1
43	Ordering Processes in FCC and BCC Binary Alloys: A Comparative Study. Materials Science Forum, 1998, 269-272, 675-680.	0.3	0
44	Precursor Nanoscale Strain Textures: From Cross-Hatched to Mottled Structure. , 0, , 543-548.		0