

Roberto Mantovan

List of Publications by Year in descending order

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93
papers

1,164
citations

471509

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477307

29
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94
all docs

94
docs citations

94
times ranked

1484
citing authors

#	ARTICLE	IF	CITATIONS
1	Low depinning fields in Ta-CoFeB-MgO ultrathin films with perpendicular magnetic anisotropy. Applied Physics Letters, 2013, 103, 182401.	3.3	90
2	Role of B diffusion in the interfacial Dzyaloshinskii-Moriya interaction in $\text{Ta}/\text{CoFeB}/\text{MgO}$ heterostructures. Physical Review B, 2015, 91, .	3.2	78
3	Towards a uniform and large-scale deposition of MoS_2 nanosheets via sulfurization of ultra-thin Mo-based solid films. Nanotechnology, 2016, 27, 175703.	2.6	59
4	Defect-related local magnetism at dilute Fe atoms in ion-implanted ZnO. Journal of Applied Physics, 2007, 102, 113915.	2.5	56
5	Enhancement of the Dzyaloshinskii-Moriya interaction and domain wall velocity through interface intermixing in Ta/CoFeB/MgO. Physical Review B, 2019, 99, .	3.2	56
6	Paramagnetism in Mn/Fe implanted ZnO. Applied Physics Letters, 2010, 97, .	3.3	45
7	Controlling magnetic domain wall motion in the creep regime in He ⁺ -irradiated CoFeB/MgO films with perpendicular anisotropy. Applied Physics Letters, 2015, 107, .	3.3	41
8	CVD synthesis of polycrystalline magnetite thin films: structural, magnetic and magnetotransport properties. Journal Physics D: Applied Physics, 2010, 43, 065002.	2.8	33
9	Low-temperature atomic layer deposition of MgO thin films on Si. Journal Physics D: Applied Physics, 2013, 46, 485304.	2.8	33
10	Fe/BaTiO ₃ interface: Band alignment and chemical properties. Applied Physics Letters, 2011, 99, 182905.	3.3	31
11	Local structure of Sn implanted in thin SiO ₂ films. Physical Review B, 2003, 68, .	3.2	25
12	Chemical vapor deposition growth of Fe ₃ O ₄ thin films and Fe/Fe ₃ O ₄ bi-layers for their integration in magnetic tunnel junctions. Thin Solid Films, 2012, 520, 4617-4621.	1.8	22
13	Atomic Layer Deposition of Magnetic Thin Films. Acta Physica Polonica A, 2007, 112, 1271-1280.	0.5	20
14	Large Spin- π Charge Conversion at Room Temperature in Extended Epitaxial Sb ₂ Te ₃ Topological Insulator Chemically Grown on Silicon. Advanced Functional Materials, 2022, 32, 2109361.	14.9	19
15	Temperature and dose dependence of defect complex formation with ion implanted Mn/Fe in ZnO. Physica B: Condensed Matter, 2009, 404, 4820-4822.	2.7	18
16	Synthesis of magnetic tunnel junctions with full in situ atomic layer and chemical vapor deposition processes. Thin Solid Films, 2012, 520, 4820-4822.	1.8	18
17	Observation of spin-lattice relaxations of dilute Fe ³⁺ in MgO by Mössbauer spectroscopy. Hyperfine Interactions, 2010, 197, 89-94.	0.5	17
18	Lattice locations and properties of Fe in Co/Fe co-implanted ZnO. Applied Physics Letters, 2012, 100, 042109.	3.3	17

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19	Chemical vapor deposition of polycrystalline Fe ₃ O ₄ thin films by using the cyclohexadiene iron tricarbonyl liquid precursor. <i>Journal of Applied Physics</i> , 2012, 111, 07B107.	2.5	17
20	Atomic-scale Magnetic Properties of Truly 3D Diluted ZnO. <i>Advanced Electronic Materials</i> , 2015, 1, 1400039.	5.1	17
21	Doping of silicon by phosphorus end-terminated polymers: drive-in and activation of dopants. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10229-10237.	5.5	17
22	Spin-lattice relaxations of paramagnetic Fe ³⁺ in ZnO. <i>Physica Scripta</i> , 2012, T148, 014006.	2.5	16
23	Fe ₃ O ₄ /MgO/Co magnetic tunnel junctions synthesized by full in situ atomic layer and chemical vapour deposition. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 102002.	2.8	16
24	Magnetic domain-wall racetrack memory for high density and fast data storage. , 2012, , .		15
25	Interface width evaluation in thin layered CoFeB/MgO multilayers including Ru or Ta buffer layer by X-ray reflectivity. <i>Thin Solid Films</i> , 2013, 533, 79-82.	1.8	15
26	Weak Antilocalization in Granular Sb ₂ Te ₃ Thin Films Deposited by MOCVD. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1800155.	2.4	15
27	Epitaxial and large area Sb ₂ Te ₃ thin films on silicon by MOCVD. <i>RSC Advances</i> , 2020, 10, 19936-19942.	3.6	15
28	Development of a parallel-plate avalanche counter to perform conversion electron Mössbauer spectroscopy at low temperatures. <i>Review of Scientific Instruments</i> , 2007, 78, 063902.	1.3	14
29	Mössbauer spectroscopy of ⁵⁷ Fe in \pm -Al ₂ O ₃ following implantation of ⁵⁷ Mn*. <i>Hyperfine Interactions</i> , 2010, 198, 5-13.	0.5	14
30	Atomic-scale study of the amorphous-to-crystalline phase transition mechanism in GeTe thin films. <i>Scientific Reports</i> , 2017, 7, 8234.	3.3	14
31	Pulsed laser deposition of ultrathin BaTiO ₃ /Fe bi-layers: Structural characterization and piezoelectric response. <i>Thin Solid Films</i> , 2012, 520, 4586-4589.	1.8	13
32	Perpendicular magnetic anisotropy in Ta/CoFeB/MgO systems synthesized on treated SiN/SiO ₂ substrates for magnetic memories. <i>Thin Solid Films</i> , 2013, 533, 75-78.	1.8	13
33	Defect annealing in Mn/Fe-implanted TiO ₂ (rutile). <i>Journal Physics D: Applied Physics</i> , 2014, 47, 065501.	2.8	13
34	Chemical, structural and magnetic properties of the Fe/Sb ₂ Te ₃ interface. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 474, 632-636.	2.3	13
35	Synthesis and characterization of Fe ₃ Si/SiO ₂ structures for spintronics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 1753-1757.	1.8	12
36	Fe charge state adjustment in ZnO upon ion implantation. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 485801.	1.8	12

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37	Magnetotransport and ARPES studies of the topological insulators Sb ₂ Te ₃ and Bi ₂ Te ₃ grown by MOCVD on large-area Si substrates. <i>Scientific Reports</i> , 2022, 12, 3891.	3.3	12
38	Spin-Charge Conversion in Fe/Au/Sb ₂ Te ₃ Heterostructures as Probed By Spin Pumping Ferromagnetic Resonance. <i>Advanced Materials Interfaces</i> , 2021, 8, 2101244.	3.7	11
39	Experimental and Theoretical Study of Electronic and Hyperfine Properties of Hydrogenated Anatase (TiO ₂): Defect Interplay and Thermal Stability. <i>Journal of Physical Chemistry C</i> , 2020, 124, 7511-7522.	3.1	10
40	ALD growth of ultra-thin Co layers on the topological insulator Sb ₂ Te ₃ . <i>Nano Research</i> , 2020, 13, 570-575.	10.4	10
41	Isothermal defect annealing in semiconductors investigated by time-delayed Mössbauer spectroscopy: application to ZnO. <i>Hyperfine Interactions</i> , 2009, 188, 85-89.	0.5	9
42	Polycrystalline magnetite (Fe ₃ O ₄) thin films from FeOx/Fe bilayers grown by pulsed laser depositions. <i>Thin Solid Films</i> , 2018, 652, 28-33.	1.8	9
43	Ferromagnetic resonance of Co thin films grown by atomic layer deposition on the Sb ₂ Te ₃ topological insulator. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 509, 166885.	2.3	9
44	Large-Area MOVPE Growth of Topological Insulator Bi ₂ Te ₃ Epitaxial Layers on i-Si(111). <i>Crystal Growth and Design</i> , 2021, 21, 4023-4029.	3.0	9
45	Effect of Substrates and Thermal Treatments on Metalorganic Chemical Vapor Deposition-Grown Sb ₂ Te ₃ Thin Films. <i>Crystal Growth and Design</i> , 2021, 21, 5135-5144.	3.0	8
46	Magnetism in iron implanted oxides: a status report. <i>Hyperfine Interactions</i> , 2010, 197, 43-52.	0.5	7
47	⁵⁷ Fe Mössbauer studies on ⁵⁷ Mn-implanted InP and InAs. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 272, 414-417.	1.4	7
48	Interstitial Fe in MgO. <i>Journal of Applied Physics</i> , 2014, 115, 023508.	2.5	7
49	Lattice sites, charge states and spin-lattice relaxation of Fe ions in ⁵⁷ Mn implanted GaN and AlN. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 401, 1130-1138.	2.3	7
50	Atomic Layer Deposition of hexagonal ErFeO ₃ thin films on SiO ₂ /Si. <i>Thin Solid Films</i> , 2016, 604, 18-22.	1.8	6
51	Metal-insulator transition in crystalline V ₂ O ₃ thin films probed at atomic-scale using emission Mössbauer spectroscopy. <i>Thin Solid Films</i> , 2020, 714, 138389.	1.8	6
52	Acceleration of Diffusional Jumps of Interstitial Fe with Increasing Ge Concentration in Si _{1-x} Ge _x Alloys Observed by Mössbauer Spectroscopy. <i>Hyperfine Interactions</i> , 2004, 158, 417-421.	0.5	5
53	The effect of a ferromagnetic Gd marker on the effective work function of Fe in contact with Al ₂ O ₃ /Si. <i>Journal of Applied Physics</i> , 2012, 111, 07C506.	2.5	5
54	Characterization of Fe states in dilute ⁵⁷ Mn implanted SnO ₂ film. <i>Hyperfine Interactions</i> , 2014, 226, 389-396.	0.5	5

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55	Recent developments in the manipulation of magnetic domain walls in CoFeB/MgO wires for applications to high-density nonvolatile memories. , 2015, , 333-378.		5
56	Charge states and lattice sites of dilute implanted Sn in ZnO. Journal of Physics Condensed Matter, 2017, 29, 155701.	1.8	5
57	Fe/Sb ₂ Te ₃ Interface Reconstruction through Mild Thermal Annealing. Advanced Materials Interfaces, 2020, 7, 2000905.	3.7	5
58	Tailoring the Phase in Nanoscale MoTe ₂ Grown by Barrier-Assisted Chemical Vapor Deposition. Crystal Growth and Design, 2021, 21, 2970-2976.	3.0	5
59	CEMS characterisation of Fe/high- $\hat{\nu}$ oxide interfaces. Hyperfine Interactions, 2007, 169, 1349-1353.	0.5	4
60	Mössbauer study of Fe in 3C-SiC following 57Mn implantation. Hyperfine Interactions, 2008, 184, 207-211.	0.5	4
61	Mössbauer spectroscopy study of interfaces for spintronics. Hyperfine Interactions, 2009, 191, 41-46.	0.5	4
62	Synthesis of multiferroic Er-Fe-O thin films by atomic layer and chemical vapor deposition. Journal of Applied Physics, 2014, 115, .	2.5	4
63	Damage annealing in low temperature Fe/Mn implanted ZnO. Hyperfine Interactions, 2015, 230, 175-180.	0.5	4
64	Bonding Character and Magnetism at the Interface Between Fe and MoS ₂ Nanosheets. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800015.	1.8	4
65	Engineering Domain-Wall Motion in $\langle \text{Co} \rangle \langle \text{Fe} \rangle \langle \text{B} \rangle \langle \text{Mg} \rangle \langle \text{O} \rangle$ Ultrathin Films with Perpendicular Anisotropy Using Patterned Substrates with Subnanometer Step Modulation. Physical Review Applied, 2018, 10, .		4
66	Low temperature CEMS of Sn-implanted SiO ₂ . Hyperfine Interactions, 2007, 165, 69-73.	0.5	3
67	Mössbauer study of 57Fe in CVD diamond following 57Mn implantation. Hyperfine Interactions, 2007, 179, 17-22.	0.5	3
68	Disordered chromite in the Martian meteorite Allan Hills 84001. Hyperfine Interactions, 2008, 186, 9-14.	0.5	3
69	Mössbauer study of 57Fe in GaAs and GaP following 57Mn+ implantation. Hyperfine Interactions, 2010, 198, 15-22.	0.5	3
70	Stability of the Fe ³⁺ state in ZnO. Hyperfine Interactions, 2013, 221, 45-51.	0.5	3
71	Growth of 2D-molybdenum disulfide on top of magnetite and iron by chemical methods. Thin Solid Films, 2020, 701, 137943.	1.8	3
72	Size dependence of the Mössbauer recoilless fraction in $\hat{\nu}$ -Sn nanocrystals. Journal of Physics Condensed Matter, 2008, 20, 385201.	1.8	2

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73	57Fe Mössbauer investigations in p-type Silicon Germanium single crystals. Hyperfine Interactions, 2009, 188, 11-17.	0.5	2
74	Mössbauer study of Fe in GaAs following 57Mn implantation. Hyperfine Interactions, 2009, 191, 115-120.	0.5	2
75	Possible cage motion of interstitial Fe in Al_2O_3 . Hyperfine Interactions, 2013, 219, 33-40.	0.5	2
76	Sensitivity of 57Fe emission Mössbauer spectroscopy to Ar and C induced defects in ZnO. Hyperfine Interactions, 2016, 237, 1.	0.5	2
77	57Fe emission Mössbauer spectroscopy following dilute implantation of 57Mn into In_2O_3 . Hyperfine Interactions, 2016, 237, 1.	0.5	2
78	Anisotropy of the Electric Field Gradient in Two-Dimensional In_2MoO_3 Investigated by 57Mn(57Fe) Emission Mössbauer Spectroscopy. Crystals, 2022, 12, 942.	2.2	2
79	Growth and study of ultrathin insulating SiO_2 and MgO layers on the ferromagnetic electrode surface. Journal of Surface Investigation, 2009, 3, 173-178.	0.5	1
80	Emission Mössbauer spectroscopy study of fluence dependence of paramagnetic relaxation in Mn/Fe implanted ZnO. Hyperfine Interactions, 2016, 237, 1.	0.5	1
81	57Fe Emission Mössbauer Study on $\text{Gd}_3\text{Ga}_5\text{O}_{12}$ implanted with dilute 57Mn. Hyperfine Interactions, 2016, 237, 1.	0.5	1
82	Dehydrogenation at the Fe/Lu $_2\text{O}_3$ interface upon rapid thermal annealing. Journal of Magnetism and Magnetic Materials, 2009, 321, 2350-2353.	2.3	0
83	Mössbauer study of 119 Sn in 119 In* implanted 3C-SiC. Hyperfine Interactions, 2012, 208, 71-74.	0.5	0
84	Annealing studies combined with low temperature emission Mössbauer spectroscopy of short-lived parent isotopes: Determination of local Debye-Waller factors. Review of Scientific Instruments, 2021, 92, 013901.	1.3	0
85	Isothermal defect annealing in semiconductors investigated by time-delayed Mössbauer spectroscopy: application to ZnO. , 2008, , 1319-1323.		0
86	57Fe Mössbauer investigations in p-type Silicon Germanium single crystals. , 2008, , 1245-1251.		0
87	Mössbauer spectroscopy study of interfaces for spintronics. , 2009, , 371-376.		0
88	Magnetism in iron implanted oxides: a status report. , 2010, , 43-52.		0
89	Observation of spin-lattice relaxations of dilute Fe^{3+} in MgO by Mössbauer spectroscopy. , 2010, , 89-94.		0
90	Mössbauer spectroscopy of 57Fe in Al_2O_3 following implantation of 57Mn*. , 2010, , 351-359.		0

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91	Stability of the Fe ³⁺ state in ZnO. , 2012, , 139-145.		0
92	Low temperature CEMS of Sn-implanted SiO ₂ . , 2006, , 69-73.		0
93	Compositional Dependence of Epitaxial $\text{Mn}_{1-x}\text{Ga}_x$ Magnetic Properties as Probed by ⁵⁷ Mn/Fe and ¹¹⁹ In/Sn Emission Mössbauer Spectroscopy. Physica Status Solidi (B): Basic Research, 0, , .	1.5	0