

Roberto Mantovan

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Large Spin-charge Conversion at Room Temperature in Extended Epitaxial Sb ₂ Te ₃ Topological Insulator Chemically Grown on Silicon. <i>Advanced Functional Materials</i> , 2022, 32, 2109361.	14.9	19
2	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
3	Anisotropy of the Electric Field Gradient in Two-Dimensional $\hat{\Gamma}$ -MoO ₃ Investigated by ⁵⁷ Mn(⁵⁷ Fe) Emission Mössbauer Spectroscopy. <i>Crystals</i> , 2022, 12, 942.	2.2	2
4	Tailoring the Phase in Nanoscale MoTe ₂ Grown by Barrier-Assisted Chemical Vapor Deposition. <i>Crystal Growth and Design</i> , 2021, 21, 2970-2976.	3.0	5
5	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
6	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
7	Annealing studies combined with low temperature emission Mössbauer spectroscopy of short-lived parent isotopes: Determination of local Debye-Waller factors. <i>Review of Scientific Instruments</i> , 2021, 92, 013901.	1.3	0
8	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
9	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
10	Fe/Sb ₂ Te ₃ Interface Reconstruction through Mild Thermal Annealing. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000905.	3.7	5
11	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
12	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
13	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
14	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
15	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
16	Growth of 2D-molybdenum disulfide on top of magnetite and iron by chemical methods. <i>Thin Solid Films</i> , 2020, 701, 137943.	1.8	3
17	Enhancement of the Dzyaloshinskii-Moriya interaction and domain wall velocity through interface intermixing in Ta/CoFeB/MgO. <i>Physical Review B</i> , 2019, 99, .	3.2	56
18	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

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19	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
20	Polycrystalline magnetite (Fe ₃ O ₄) thin films from FeOx/Fe bilayers grown by pulsed laser depositions. Thin Solid Films, 2018, 652, 28-33.	1.8	9
21	Engineering Domain Wall Motion in Co/Fe Bilayers. Co/Fe Bilayers with Perpendicular Anisotropy Using Patterned Substrates with Subnanometer Step Modulation. Physical Review Applied, 2018, 10, 044004.	1.8	4
22	Weak Antilocalization in Granular Sb ₂ Te ₃ Thin Films Deposited by MOCVD. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800155.	2.4	15
23	Charge states and lattice sites of dilute implanted Sn in ZnO. Journal of Physics Condensed Matter, 2017, 29, 155701.	1.8	5
24	Atomic-scale study of the amorphous-to-crystalline phase transition mechanism in GeTe thin films. Scientific Reports, 2017, 7, 8234.	3.3	14
25	Atomic Layer Deposition of hexagonal ErFeO ₃ thin films on SiO ₂ /Si. Thin Solid Films, 2016, 604, 18-22.	1.8	6
26	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
27	Sensitivity of 57Fe emission Mössbauer spectroscopy to Ar and C induced defects in ZnO. Hyperfine Interactions, 2016, 237, 1.	0.5	2
28	Emission Mössbauer spectroscopy study of fluence dependence of paramagnetic relaxation in Mn/Fe implanted ZnO. Hyperfine Interactions, 2016, 237, 1.	0.5	1
29	Lattice sites, charge states and spin lattice relaxation of Fe ions in 57 Mn + implanted GaN and AlN. Journal of Magnetism and Magnetic Materials, 2016, 401, 1130-1138.	2.3	7
30	57 Fe Emission Mössbauer Study on Gd ₃ Ga ₅ O ₁₂ implanted with dilute 57 Mn. Hyperfine Interactions, 2016, 237, 1.	0.5	1
31	57Fe emission Mössbauer spectroscopy following dilute implantation of 57Mn into In ₂ O ₃ . Hyperfine Interactions, 2016, 237, 1.	0.5	2
32	Recent developments in the manipulation of magnetic domain walls in CoFeB/MgO wires for applications to high-density nonvolatile memories. , 2015, , 333-378.		5
33	Atomic Scale Magnetic Properties of Truly Diluted ZnO. Advanced Electronic Materials, 2015, 1, 1400039.	5.1	17
34	Role of B diffusion in the interfacial Dzyaloshinskii-Moriya interaction in $\text{Ta}/\text{Fe}/\text{MgO}$ bilayers. Physical Review B, 2015, 91, .	3.2	78
35	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
36	Damage annealing in low temperature Fe/Mn implanted ZnO. Hyperfine Interactions, 2015, 230, 175-180.	0.5	4

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37	Interstitial Fe in MgO. Journal of Applied Physics, 2014, 115, 023508.	2.5	7
38	Defect annealing in Mn/Fe-implanted TiO ₂ (rutile). Journal Physics D: Applied Physics, 2014, 47, 065501.	2.8	13
39	Characterization of Fe states in dilute 57 Mn implanted SnO ₂ film. Hyperfine Interactions, 2014, 226, 389-396.	0.5	5
40	Synthesis of multiferroic Er-Fe-O thin films by atomic layer and chemical vapor deposition. Journal of Applied Physics, 2014, 115, .	2.5	4
41	Fe ₃ O ₄ /MgO/Co magnetic tunnel junctions synthesized by full in situ atomic layer and chemical vapour deposition. Journal Physics D: Applied Physics, 2014, 47, 102002.	2.8	16
42	Perpendicular magnetic anisotropy in Ta/CoFeB/MgO systems synthesized on treated SiN/SiO ₂ substrates for magnetic memories. Thin Solid Films, 2013, 533, 75-78.	1.8	13
43	Low-temperature atomic layer deposition of MgO thin films on Si. Journal Physics D: Applied Physics, 2013, 46, 485304.	2.8	33
44	Interface width evaluation in thin layered CoFeB/MgO multilayers including Ru or Ta buffer layer by X-ray reflectivity. Thin Solid Films, 2013, 533, 79-82.	1.8	15
45	Possible cage motion of interstitial Fe in $\hat{\Gamma}$ -Al ₂ O ₃ . Hyperfine Interactions, 2013, 219, 33-40.	0.5	2
46	Stability of the Fe ³⁺ state in ZnO. Hyperfine Interactions, 2013, 221, 45-51.	0.5	3
47	Low depinning fields in Ta-CoFeB-MgO ultrathin films with perpendicular magnetic anisotropy. Applied Physics Letters, 2013, 103, 182401.	3.3	90
48	Spin lattice relaxations of paramagnetic Fe ³⁺ in ZnO. Physica Scripta, 2012, T148, 014006.	2.5	16
49	Lattice locations and properties of Fe in Co/Fe co-implanted ZnO. Applied Physics Letters, 2012, 100, 042109.	3.3	17
50	Chemical vapor deposition of polycrystalline Fe ₃ O ₄ thin films by using the cyclohexadiene iron tricarbonyl liquid precursor. Journal of Applied Physics, 2012, 111, 07B107.	2.5	17
51	The effect of a ferromagnetic Gd marker on the effective work function of Fe in contact with Al ₂ O ₃ /Si. Journal of Applied Physics, 2012, 111, 07C506.	2.5	5
52	Magnetic domain-wall racetrack memory for high density and fast data storage., 2012, , .		15
53	Fe charge state adjustment in ZnO upon ion implantation. Journal of Physics Condensed Matter, 2012, 24, 485801.	1.8	12
54	Mössbauer study of 119 Sn in 119 In* implanted 3C-SiC. Hyperfine Interactions, 2012, 208, 71-74.	0.5	0

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55	57Fe Mössbauer studies on 57Mn ⁺ -implanted InP and InAs. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 414-417.	1.4	7
56	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
57	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
58	Pulsed laser deposition of ultrathin BaTiO ₃ /Fe bi-layers: Structural characterization and piezoelectric response. Thin Solid Films, 2012, 520, 4586-4589.	1.8	13
59	Stability of the Fe ³⁺ state in ZnO. , 2012, , 139-145.		0
60	Fe/BaTiO ₃ interface: Band alignment and chemical properties. Applied Physics Letters, 2011, 99, 182905.	3.3	31
61	Mössbauer spectroscopy of 57Fe in $\hat{\pm}$ -Al ₂ O ₃ following implantation of 57Mn*. Hyperfine Interactions, 2010, 198, 5-13.	0.5	14
62	Magnetism in iron implanted oxides: a status report. Hyperfine Interactions, 2010, 197, 43-52.	0.5	7
63	Observation of spin-lattice relaxations of dilute Fe ³⁺ in MgO by Mössbauer spectroscopy. Hyperfine Interactions, 2010, 197, 89-94.	0.5	17
64	Mössbauer study of 57Fe in GaAs and GaP following 57Mn+ implantation. Hyperfine Interactions, 2010, 198, 15-22.	0.5	3
65	Paramagnetism in Mn/Fe implanted ZnO. Applied Physics Letters, 2010, 97, .	3.3	45
66	CVD synthesis of polycrystalline magnetite thin films: structural, magnetic and magnetotransport properties. Journal Physics D: Applied Physics, 2010, 43, 065002.	2.8	33
67	Magnetism in iron implanted oxides: a status report. , 2010, , 43-52.		0
68	Observation of spin-lattice relaxations of dilute Fe ³⁺ in MgO by Mössbauer spectroscopy. , 2010, , 89-94.		0
69	Mössbauer spectroscopy of 57Fe in $\hat{\pm}$ -Al ₂ O ₃ following implantation of 57Mn*. , 2010, , 351-359.		0
70	57Fe Mössbauer investigations in p-type Silicon Germanium single crystals. Hyperfine Interactions, 2009, 188, 11-17.	0.5	2
71	Isothermal defect annealing in semiconductors investigated by time-delayed Mössbauer spectroscopy: application to ZnO. Hyperfine Interactions, 2009, 188, 85-89.	0.5	9
72	Mössbauer study of Fe in GaAs following 57Mn ⁺ implantation. Hyperfine Interactions, 2009, 191, 115-120.		2

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73	Mössbauer spectroscopy study of interfaces for spintronics. <i>Hyperfine Interactions</i> , 2009, 191, 41-46.	0.5	4
74	Temperature and dose dependence of defect complex formation with ion implanted Mn/Fe in ZnO. <i>Physica B: Condensed Matter</i> , 2009, 404, 4820-4822.	2.7	18
75	Dehydrogenation at the Fe/Lu ₂ O ₃ interface upon rapid thermal annealing. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 2350-2353.	2.3	0
76	Growth and study of ultrathin insulating SiO ₂ and MgO layers on the ferromagnetic electrode surface. <i>Journal of Surface Investigation</i> , 2009, 3, 173-178.	0.5	1
77	Mössbauer spectroscopy study of interfaces for spintronics. , 2009, , 371-376.		0
78	Mössbauer study of Fe in 3C-SiC following ⁵⁷ Mn implantation. <i>Hyperfine Interactions</i> , 2008, 184, 207-211.	0.5	4
79	Disordered chromite in the Martian meteorite Allan Hills 84001. <i>Hyperfine Interactions</i> , 2008, 186, 9-14.	0.5	3
80	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
81	Size dependence of the Mössbauer recoilless fraction in ¹¹⁹ Sr nanocrystals. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 385201.	1.8	2
82	Isothermal defect annealing in semiconductors investigated by time-delayed Mössbauer spectroscopy: application to ZnO. , 2008, , 1319-1323.		0
83	⁵⁷ Fe Mössbauer investigations in p-type Silicon Germanium single crystals. , 2008, , 1245-1251.		0
84	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
85	Defect-related local magnetism at dilute Fe atoms in ion-implanted ZnO. <i>Journal of Applied Physics</i> , 2007, 102, 113915.	2.5	56
86	Low temperature CEMS of Sn-implanted SiO ₂ . <i>Hyperfine Interactions</i> , 2007, 165, 69-73.	0.5	3
87	CEMS characterisation of Fe/high- ¹¹⁹ Sr oxide interfaces. <i>Hyperfine Interactions</i> , 2007, 169, 1349-1353.	0.5	4
88	Mössbauer study of ⁵⁷ Fe in CVD diamond following ⁵⁷ Mn implantation. <i>Hyperfine Interactions</i> , 2007, 179, 17-22.	0.5	3
89	Atomic Layer Deposition of Magnetic Thin Films. <i>Acta Physica Polonica A</i> , 2007, 112, 1271-1280.	0.5	20
90	Low temperature CEMS of Sn-implanted SiO ₂ . , 2006, , 69-73.		0

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91	Acceleration of Diffusional Jumps of Interstitial Fe with Increasing Ge Concentration in Si _{1-x} Ge _x Alloys Observed by Mössbauer Spectroscopy. Hyperfine Interactions, 2004, 158, 417-421.	0.5	5
92	Local structure of Sn implanted in thin SiO ₂ films. Physical Review B, 2003, 68, .	3.2	25
93	Compositional Dependence of Epitaxial Mn _{1-x} 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