

Rui C Vilao

List of Publications by Year in descending order

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papers

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citations

430442

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69
all docs

69
docs citations

69
times ranked

1002
citing authors

#	ARTICLE	IF	CITATIONS
1	Suppinfo: \hat{L}_{\pm} puzzle: Joint and density functional theory study. Physical Review B, 2021, 103, .	1.1	3
2	Modelling isolated hydrogen impurity in Lu ₂ O ₃ with muonium spectroscopy. EPJ Web of Conferences, 2020, 233, 04001.	0.1	0
3	Reply to "Comment on 'Role of the transition state in muon implantation' and 'Thermal spike in muon implantation'". Physical Review B, 2020, 101, .	1.1	3
4	Muon implantation experiments in films: Obtaining depth-resolved information. Review of Scientific Instruments, 2020, 91, 023906.	0.6	13
5	Optical spectroscopy of muon/hydrogen defects in 6H-SiC. Journal of Applied Physics, 2020, 127, 095702.	1.1	3
6	CdS versus ZnSnO buffer layers for a CIGS solar cell: a depth-resolved analysis using the muon probe. EPJ Web of Conferences, 2020, 233, 05004.	0.1	7
7	Thermal spike in muon implantation. Physical Review B, 2019, 99, .	1.1	11
8	Paramagnetic rare-earth oxide Nd ₂ O ₃ investigated by muon spin spectroscopy. Physical Review B, 2019, 100, .	1.1	4
9	Barrier model in muon implantation and application to Lu_2O_3 . Physical Review B, 2018, 98, .	1.1	10
10	Electronic structure and migration of interstitial hydrogen in the rutile phase of TiO ₂ . Journal of Physics Condensed Matter, 2018, 30, 425503.	0.7	8
11	Slow-muon study of quaternary solar-cell materials: Single layers and p-n junctions. Physical Review Materials, 2018, 2, .	0.1	2
12	Defect levels and hyperfine constants of hydrogen in beryllium oxide from hybrid-functional calculations and muonium spectroscopy. Philosophical Magazine, 2017, 97, 2108-2128.	0.7	13
13	Role of the transition state in muon implantation. Physical Review B, 2017, 96, .	1.1	19
14	Isolated hydrogen configurations in zirconia as seen by muon spin spectroscopy and <i>ab initio</i> calculations. Physical Review B, 2016, 94, .	1.1	24
15	Electronic structure of interstitial hydrogen in lutetium oxide from DFT^+ and comparison study with U^+ . Physical Review B, 2016, 94, .	1.1	21
16	Muonium donor in rutile TiO_2 comparison with hydrogen. Physical Review B, 2015, 92, .	1.1	11
17	Muonium states in $\text{Cu}_2\text{ZnSnS}_4$ solar cell material. Journal of Physics: Conference Series, 2014, 551, 012045.	0.3	8
18	Berimbau: A simple instrument for teaching basic concepts in the physics and psychoacoustics of music. American Journal of Physics, 2014, 82, 1149-1156.	0.3	3

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19	High-field study of muonium states in HfO ₂ and ZrO ₂ . Journal of Physics: Conference Series, 2014, 551, 012048.	0.3	7
20	Muon-Spin-Rotation study of yttria-stabilized zirconia (ZrO ₂ :Y): Evidence for muon and electron separate traps. Journal of Physics: Conference Series, 2014, 551, 012050.	0.3	6
21	The first 25 years of semiconductor muonics at ISIS, modelling the electrical activity of hydrogen in inorganic semiconductors and high- ϵ^r dielectrics. Physica Scripta, 2013, 88, 068503.	1.2	20
22	Electron polarization and formation probability of bound muonium in CdS and Si. Physical Review B, 2012, 86, .	1.1	12
23	Hydrogen impurity in yttria: <i>Ab initio</i> and μ SR perspectives. Physical Review B, 2012, 85, .	1.1	32
24	Hydrogen impurity in paratellurite μ SR studies. Physical Review B, 2011, 84, .	1.1	24
25	Microscopic study of carrier transport in the organic semiconductor zinc phthalocyanine. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 996-999.	0.8	2
26	Mechanisms of electron polarization of shallow muonium in CdTe and CdS. Physical Review B, 2010, 81, .	1.1	13
27	Detailed hyperfine structure of muoniated radicals in planar phthalocyanines. Physica B: Condensed Matter, 2009, 404, 933-935.	1.3	1
28	Delayed electron capture and formation in ZnSe. Physica B: Condensed Matter, 2009, 404, 888-891.	1.3	9
29	Spin-exchange of axially symmetric Mu states in polycrystalline media. Physica B: Condensed Matter, 2009, 404, 859-861.	1.3	2
30	Muonium in nano-crystalline II-VI semiconductors. Physica B: Condensed Matter, 2009, 404, 837-840.	1.3	2
31	Spin exchange of muonium in CdS. Physica B: Condensed Matter, 2009, 404, 834-836.	1.3	5
32	Low-energy muon [LEM] study of Zn-phthalocyanine and ZnO thin films. Physica B: Condensed Matter, 2009, 404, 870-872.	1.3	3
33	Possible donor and acceptor energies for Mu in ZnSe. Physica B: Condensed Matter, 2009, 404, 827-830.	1.3	5
34	Muonium as a probe of electron spin polarisation in CdTe. Physica B: Condensed Matter, 2009, 404, 5110-5112.	1.3	3
35	Shallow donor state of hydrogen in μ SR studies. Physical Review B, 2009, 80, .	1.1	135
36	Implications for conductivity. Physical Review B, 2009, 80, .	1.1	27
36	Acceptor level of interstitial muonium in ZnSe and ZnS. Physical Review B, 2008, 77, .	1.1	27

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37	Information on hydrogen states in II–VI semiconductor compounds from a study of their muonium analogues. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 580, 438-441.	0.7	9
38	Muonium states in II–VI zinc chalcogenide semiconductors. Physica B: Condensed Matter, 2006, 374-375, 383-386.	1.3	2
39	Muonium diffusion dynamics in mercury oxide. Physica B: Condensed Matter, 2006, 374-375, 423-425.	1.3	1
40	Dynamics of muoniated radical states in phthalocyanines. Physica B: Condensed Matter, 2006, 374-375, 426-429.	1.3	2
41	g-Sign determination with circularly polarised RF fields. Physica B: Condensed Matter, 2006, 374-375, 475-479.	1.3	3
42	Location of the H level: Experimental limits for muonium. Physica B: Condensed Matter, 2006, 376-377, 587-590.	1.3	21
43	Oxide muonics: A new compendium. Physica B: Condensed Matter, 2006, 374-375, 379-382.	1.3	4
44	Oxide muonics and the 3- model for deep and shallow hydrogen states in dielectric and semiconducting oxides. Physica B: Condensed Matter, 2006, 376-377, 385-388.	1.3	6
45	Oxide muonics: II. Modelling the electrical activity of hydrogen in wide-gap and high-permittivity dielectrics. Journal of Physics Condensed Matter, 2006, 18, 1079-1119.	0.7	70
46	Muoniated radical states in the organic semiconductor phthalocyanine. Physical Review B, 2006, 73, .	1.1	7
47	Muonium In ZnTe As A Model For Isolated Hydrogen. AIP Conference Proceedings, 2005, , .	0.3	1
48	Hydrogen In Oxides, Modelled By Muonium. AIP Conference Proceedings, 2005, , .	0.3	7
49	Muonium spectroscopy in ZnSe: Metastability and conversion. Physical Review B, 2005, 72, .	1.1	30
50	Hyperfine Parameters for Muonium in Copper (I), Silver (I) and Cadmium Oxides. Hyperfine Interactions, 2004, 158, 313-316.	0.2	3
51	Double-resonance determination of electron-g-factors in muonium shallow-donor states. Journal of Physics Condensed Matter, 2004, 16, S4707-S4720.	0.7	20
52	Hydrogen states in CuInSe ₂ a μ SR study. Physica B: Condensed Matter, 2003, 340-342, 965-968.	1.3	10
53	Muoniated radicals in the organic semiconductor zinc-phthalocyanine. Physica B: Condensed Matter, 2003, 326, 94-96.	1.3	13
54	Shallow donor versus deep acceptor state in II–VI semiconductor compounds. Physica B: Condensed Matter, 2003, 326, 124-127.	1.3	19

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55	Muon diffusion and trapping in chalcopyrite semiconductors. <i>Physica B: Condensed Matter</i> , 2003, 326, 181-184.	1.3	14
56	Muon and hydrogen states in II-VI semiconductor compounds. A μ SR study. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 711-714.	0.8	4
57	Shallow donor muonium states in II-VI semiconductor compounds. <i>Physical Review B</i> , 2001, 64, .	1.1	68
58	Experimental Confirmation of the Predicted Shallow Donor Hydrogen State in Zinc Oxide. <i>Physical Review Letters</i> , 2001, 86, 2601-2604.	2.9	415
59	Shallow versus deep hydrogen states in ZnO and HgO. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 9001-9010.	0.7	29
60	Nuclear inelastic scattering with ^{161}Dy . <i>Physical Review B</i> , 2001, 63, .	1.1	15
61	Probing the shallow-donor muonium wave function in ZnO and CdS via transferred hyperfine interactions. <i>Physica B: Condensed Matter</i> , 2001, 308-310, 920-923.	1.3	12
62	Powder Pattern Hyperfine Spectroscopy of Shallow- Donor Muonium Centres. <i>Hyperfine Interactions</i> , 2001, 136/137, 471-477.	0.2	7
63	Muonium states in HgO. <i>Journal of Physics Condensed Matter</i> , 2001, 13, L613-L618.	0.7	16
64	Shallow-level muonium centre in CdS. <i>Physica B: Condensed Matter</i> , 2000, 289-290, 563-566.	1.3	2
65	High-temperature trapping of muons in CuInSe_2 and CuInS_2 . <i>Physica B: Condensed Matter</i> , 2000, 289-290, 567-569.	1.3	6
66	Novel Muonium State in CdS. <i>Physical Review Letters</i> , 1999, 83, 5294-5297.	2.9	61
67	Modeling hydrogen in CuInSe_2 and CuInS_2 solar cell materials using implanted muons. <i>Physical Review B</i> , 1999, 59, 1912-1916.	1.1	20
68	Hydrogen states in mixed-cation $\text{CuIn}_{(1-x)}\text{Ga}_x\text{Se}_2$ chalcopyrite alloys: a combined study by first-principles density-functional calculations and muon-spin spectroscopy. <i>Philosophical Magazine</i> , 0, , 1-23.	0.7	5
69	Characterization of the Interfacial Defect Layer in Chalcopyrite Solar Cells by Depth-Resolved Muon Spin Spectroscopy. <i>Advanced Materials Interfaces</i> , 0, , 2200374.	1.9	2