

Jean-Yves Raty

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

1,211
citations

623734

14
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552781

26
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28
all docs

28
docs citations

28
times ranked

1137
citing authors

#	ARTICLE	IF	CITATIONS
1	Relevance of Ge incorporation to control the physical behaviour of point defects in kesterite. Journal of Materials Chemistry A, 2022, 10, 4355-4365.	10.3	7
2	Opto-electronic properties and solar cell efficiency modelling of Cu_2ZnXS_4 ($X = \text{Sn}, \text{Ge}, \text{Si}$) kesterites. JPhys Energy, 2021, 3, 035005.	5.3	9
3	Metavalent Bonding in Crystalline Solids: How Does It Collapse?. Advanced Materials, 2021, 33, e2102356.	21.0	65
4	Subpicosecond Nonequilibrium States in the Amorphous Phase of GeTe Phase-Change Material Thin Films. Advanced Materials, 2021, 33, e2102721.	21.0	8
5	How to Identify Lone Pairs, Van der Waals Gaps, and Metavalent Bonding Using Charge and Pair Density Methods: From Elemental Chalcogens to Lead Chalcogenides and Phase-Change Materials. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000534.	2.4	19
6	Ovonic Threshold Switching in Se-Rich $\text{Ge}_x\text{Se}_{1-x}$ Glasses from an Atomistic Point of View: The Crucial Role of the Metavalent Bonding Mechanism. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900581.	2.4	14
7	Chalcogenide Films: Laser Generation of Submicrometer Wrinkles in a Chalcogenide Glass Film as Physical Unclonable Functions (Adv. Mater. 38/2020). Advanced Materials, 2020, 32, 2070287.	21.0	1
8	Ovonic Threshold Switching in Se-Rich $\text{Ge}_x\text{Se}_{1-x}$ Glasses from an Atomistic Point of View: The Crucial Role of the Metavalent Bonding Mechanism. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2070024.	2.4	3
9	Lead Chalcogenides: Discovering Electron-Transfer-Driven Changes in Chemical Bonding in Lead Chalcogenides (PbX , where $X = \text{Te}, \text{Se}, \text{S}, \text{O}$) (Adv. Mater. 49/2020). Advanced Materials, 2020, 32, 2070370.	21.0	1
10	Laser Generation of Submicrometer Wrinkles in a Chalcogenide Glass Film as Physical Unclonable Functions. Advanced Materials, 2020, 32, e2003032.	21.0	18
11	Discovering Electron-Transfer-Driven Changes in Chemical Bonding in Lead Chalcogenides (PbX , where) Tj ETQq1 1 0.784314 rgBT /Overlock	21.0	56
12	Local structure of $[(\text{GeTe})_2/(\text{Sb}_2\text{Te}_3)_m]_n$ super-lattices by x-ray absorption spectroscopy. Journal Physics D: Applied Physics, 2020, 53, 404002.	2.8	9
13	The interplay between Peierls distortions and metavalent bonding in IV-VI compounds: comparing GeTe with related monochalcogenides. Journal Physics D: Applied Physics, 2020, 53, 234002.	2.8	43
14	Toward ultimate nonvolatile resistive memories: The mechanism behind ovonic threshold switching revealed. Science Advances, 2020, 6, eaay2830.	10.3	89
15	Understanding the Structure and Properties of Sesquichalcogenides (i.e.,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 187 Td (V	21.0	98
16	Aging in Phase Change Materials: Getting Insight from Simulation. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800590.	2.4	11
17	A Quantum-Mechanical Map for Bonding and Properties in Solids. Advanced Materials, 2019, 31, e1806280.	21.0	206
18	Phase-change materials for non-volatile memory devices: from technological challenges to materials science issues. Semiconductor Science and Technology, 2018, 33, 013002.	2.0	180

#	ARTICLE	IF	CITATIONS
19	Incipient Metals: Functional Materials with a Unique Bonding Mechanism. <i>Advanced Materials</i> , 2018, 30, e1803777.	21.0	255
20	<i>Ab initio</i> density functional theory study of the electronic, dynamic, and thermoelectric properties of the crystalline pseudobinary chalcogenide $(\text{GeTe})_x$. <i>Physical Review B</i> , 2018, 97, .	3.2	18
21	Phase-change materials and rigidity. <i>MRS Bulletin</i> , 2017, 42, 45-49.	3.5	9
22	Universal amorphous-amorphous transition in $\text{Ge}_{100-x}\text{Se}_x$ glasses under pressure. <i>Scientific Reports</i> , 2016, 6, 27317.	3.3	9
23	Amorphous Phase Change Materials: Structure, Stability and Relation with Their Crystalline Phase. <i>Springer Series in Materials Science</i> , 2015, , 485-509.	0.6	3
24	Vibrational properties and stabilization mechanism of the amorphous phase of doped GeTe. <i>Physical Review B</i> , 2013, 88, .	3.2	24
25	Amorphous structure and electronic properties of the $\text{Ge}_1\text{Sb}_2\text{Te}_4$ phase change material. <i>Solid State Sciences</i> , 2010, 12, 193-198.	3.2	36
26	Structural and vibrational study of the negative thermal expansion in liquid As_2 . <i>Physical Review B</i> , 2010, 82, .	3.2	20