

Isabel JÃ-menez Ferrer

List of Publications by Year in descending order

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83
papers

2,817
citations

159358

30
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189595

50
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85
all docs

85
docs citations

85
times ranked

3024
citing authors

#	ARTICLE	IF	CITATIONS
1	TiS ₃ Transistors with Tailored Morphology and Electrical Properties. <i>Advanced Materials</i> , 2015, 27, 2595-2601.	11.1	193
2	Ultrahigh Photoresponse of Few-Layer TiS ₃ Nanoribbon Transistors. <i>Advanced Optical Materials</i> , 2014, 2, 641-645.	3.6	189
3	About the band gap nature of FeS ₂ as determined from optical and photoelectrochemical measurements. <i>Solid State Communications</i> , 1990, 74, 913-916.	0.9	158
4	Electronics and optoelectronics of quasi-1D layered transition metal trichalcogenides. <i>2D Materials</i> , 2017, 4, 022003.	2.0	146
5	Thermoelectric power of bulk black-phosphorus. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	135
6	Titanium trisulfide (TiS ₃): a 2D semiconductor with quasi-1D optical and electronic properties. <i>Scientific Reports</i> , 2016, 6, 22214.	1.6	107
7	Characterization of FeS ₂ thin films prepared by thermal sulfidation of flash evaporated iron. <i>Journal of Applied Physics</i> , 1991, 70, 2641-2647.	1.1	103
8	Temperature-Dependent Raman Spectroscopy of Titanium Trisulfide (TiS ₃) Nanoribbons and Nanosheets. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 24185-24190.	4.0	89
9	Optical properties of titanium trisulphide (TiS ₃) thin films. <i>Thin Solid Films</i> , 2013, 535, 398-401.	0.8	85
10	Polarization-Sensitive and Broadband Photodetection Based on a Mixed-Dimensionality TiS ₃ /Si p-n Junction. <i>Advanced Optical Materials</i> , 2018, 6, 1800351.	3.6	64
11	Electronic Bandgap and Exciton Binding Energy of Layered Semiconductor TiS ₃ . <i>Advanced Electronic Materials</i> , 2015, 1, 1500126.	2.6	59
12	Grain and crystallite size in polycrystalline pyrite thin films. <i>Thin Solid Films</i> , 2005, 480-481, 477-481.	0.8	54
13	Structural and microstructural features of pyrite FeS ₂ thin films obtained by thermal sulfuration of iron. <i>Journal of Materials Research</i> , 1996, 11, 211-220.	1.2	53
14	High Current Density Electrical Breakdown of TiS ₃ Nanoribbon-Based Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2017, 27, 1605647.	7.8	52
15	An investigation on palladium sulphide (PdS) thin films as a photovoltaic material. <i>Thin Solid Films</i> , 2007, 515, 5783-5786.	0.8	50
16	Attachment of <i>Thiobacillus ferrooxidans</i> on synthetic pyrite of varying structural and electronic properties. <i>Hydrometallurgy</i> , 1999, 51, 115-129.	1.8	49
17	Hydrogen Absorption/Desorption Mechanism in Potassium Alanate (KAlH ₄) and Enhancement by TiCl ₃ Doping. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6845-6851.	1.5	48
18	On the Photoelectrochemical Properties of TiS ₃ Films. <i>Energy Procedia</i> , 2012, 22, 48-52.	1.8	47

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19	Hydrogen Evolution Using Palladium Sulfide (PdS) Nanocorals as Photoanodes in Aqueous Solution. ACS Applied Materials & Interfaces, 2014, 6, 20544-20549.	4.0	42
20	Preparation of n-type doped FeS ₂ thin films. Solid State Communications, 1994, 89, 349-352.	0.9	41
21	Large birefringence and linear dichroism in TiS ₃ nanosheets. Nanoscale, 2018, 10, 12424-12429.	2.8	40
22	Titanium trisulphide (TiS ₃) nanoribbons for easy hydrogen photogeneration under visible light. Journal of Materials Chemistry A, 2015, 3, 7959-7965.	5.2	39
23	Hydrogen Photoassisted Generation by Visible Light and an Earth Abundant Photocatalyst: Pyrite (FeS ₂). Journal of Physical Chemistry C, 2016, 120, 9547-9552.	1.5	37
24	Strain-induced band gap engineering in layered TiS ₃ . Nano Research, 2018, 11, 225-232.	5.8	36
25	Photoluminescence and electroluminescence mechanisms at polycrystalline CdS in air and in contact with aqueous electrolytes. Journal of Applied Physics, 1989, 66, 2568-2577.	1.1	34
26	Reaction pathways for hydrogen desorption from magnesium hydride/hydroxide composites: bulk and interface effects. Physical Chemistry Chemical Physics, 2010, 12, 572-577.	1.3	34
27	Synthesis and characterization of a family of layered trichalcogenides for assisted hydrogen photogeneration. Physica Status Solidi - Rapid Research Letters, 2016, 10, 802-806.	1.2	34
28	Detection of surface states associated with adsorbed hydrogen peroxide on titanium dioxide by impedance and electrolyte electroreflectance measurements. The Journal of Physical Chemistry, 1986, 90, 2805-2807.	2.9	32
29	Evolution of the Seebeck coefficient during the formation and crystallization of pyrite thin films. Journal of Physics Condensed Matter, 1998, 10, 4281-4289.	0.7	31
30	Formation of n-type pyrite films from electrodeposited iron sulphides: effect of annealing temperature. Materials Research Bulletin, 2003, 38, 1123-1133.	2.7	31
31	Pyrite thin films: Improvements in their optical and electrical properties by annealing at different temperatures in a sulfur atmosphere. Journal of Applied Physics, 1993, 74, 4551-4556.	1.1	30
32	Marcasite revisited: Optical absorption gap at room temperature. Solid State Communications, 2016, 230, 20-24.	0.9	29
33	Photoelectrochemical response and optical absorption of pyrite (FeS ₂) natural single crystals. Solid State Communications, 1992, 81, 371-374.	0.9	27
34	Lattice intrinsic defects and electrical resistivity in pyrite thin films. Thin Solid Films, 2004, 451-452, 233-236.	0.8	27
35	Hydrogen desorption in nanocrystalline MgH ₂ thin films at room temperature. Journal of Alloys and Compounds, 2010, 495, 650-654.	2.8	27
36	A note on the Hall mobility and carrier concentration in pyrite thin films. Solar Energy Materials and Solar Cells, 2003, 76, 183-188.	3.0	26

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37	The effect of Ni impurities on some structural properties of pyrite thin films. <i>Journal of Physics Condensed Matter</i> , 1995, 7, 2115-2121.	0.7	22
38	Majority carriers in pyrite thin films: an analysis based on Seebeck and Hall coefficient measurements. <i>Thin Solid Films</i> , 2003, 431-432, 511-513.	0.8	22
39	Dielectrophoretic assembly of liquid-phase-exfoliated TiS_3 nanoribbons for photodetecting applications. <i>Chemical Communications</i> , 2017, 53, 6164-6167.	2.2	22
40	Cubic Pd_{16}S_7 as a Precursor Phase in the Formation of Tetragonal PdS by Sulfuration of Pd Thin Films. <i>Journal of Physical Chemistry C</i> , 2009, 113, 5329-5335.	1.5	21
41	Chemical vapor deposition growth of boron-carbon-nitrogen layers from methylamine borane thermolysis products. <i>Nanotechnology</i> , 2018, 29, 025603.	1.3	21
42	Influence of temperature on thermoelectric properties of $\text{Fe}_x\text{Co}_{1-x}\text{S}_2$ thin films: A semiconductor to semimetal conversion. <i>Thin Solid Films</i> , 2016, 600, 19-24.	0.8	20
43	Temperature dependence of the optical absorption edge of pyrite FeS_2 thin films. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 10177-10183.	0.7	19
44	Beyond Mono-, Di-, and Trisulfides: Synthesizing Vanadium Tetrasulfide (VS_4) Films for Energy Conversion. <i>ACS Applied Energy Materials</i> , 2018, 1, 2333-2340.	2.5	19
45	Electrical resistance evolution of Fe thin films during their sulphuration process. <i>Applied Surface Science</i> , 2004, 234, 355-361.	3.1	18
46	Co distribution through n-type pyrite thin films. <i>Thin Solid Films</i> , 2008, 516, 7116-7119.	0.8	18
47	Non-isothermal desorption process of hydrogenated nanocrystalline Pd-capped Mg films investigated by Ion Beam Techniques. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 2587-2596.	3.8	18
48	Application of Mössbauer spectroscopy to study the formation of iron pyrite thin films. <i>Journal of Materials Science</i> , 1993, 28, 389-393.	1.7	17
49	Ultrasonic irradiation as a tool to modify the H-desorption from hydrides: MgH_2 suspended in decane. <i>Ultrasonics Sonochemistry</i> , 2009, 16, 810-816.	3.8	17
50	Thermal decomposition of non-catalysed MgH_2 films. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9865-9870.	3.8	17
51	A methodology to reduce error sources in the determination of thin film chemical composition by EDAX. <i>Thin Solid Films</i> , 2004, 450, 207-210.	0.8	16
52	Ultrathin Transparent C_xN Layers Grown on Titanium Substrates with Excellent Electrocatalytic Activity for the Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020, 3, 1922-1932.	2.5	16
53	Growth of pyrite thin-films investigated by thermoelectric measurements. <i>Thin Solid Films</i> , 2001, 387, 97-99.	0.8	15
54	On the growth and doping of Fe/Ti chalcogenide thin films. <i>Solar Energy Materials and Solar Cells</i> , 2005, 87, 575-582.	3.0	15

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55	Iron Pyrite from Iron Thin Films: Identification of Intermediate Phases and Associated Conductivity-type Transitions. <i>Journal of Physical Chemistry C</i> , 2014, 118, 26440-26446.	1.5	15
56	Raman Fingerprint of Pressure-Induced Phase Transitions in TiS ₃ Nanoribbons: Implications for Thermal Measurements under Extreme Stress Conditions. <i>ACS Applied Nano Materials</i> , 2020, 3, 8794-8802.	2.4	15
57	Multi-terminal electronic transport in boron nitride encapsulated TiS ₃ nanosheets. <i>2D Materials</i> , 2020, 7, 015009.	2.0	14
58	Tunable Photodetectors via In Situ Thermal Conversion of TiS ₃ to TiO ₂ . <i>Nanomaterials</i> , 2020, 10, 711.	1.9	14
59	Comparison of pyrite thin films obtained from Fe and natural pyrite powder. <i>Applied Surface Science</i> , 1991, 50, 505-509.	3.1	12
60	Photoetching of polycrystalline n-CdS film electrodes in a photoelectrochemical cell: An electrolyte electroreflectance study. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1987, 91, 374-378.	0.9	10
61	N-Type Pyrite Thin Films Obtained by Doping with Titanium. <i>Solid State Phenomena</i> , 2001, 80-81, 281-286.	0.3	10
62	Cu _{Al} xGa _{1-x} Se ₂ thin films for photovoltaic applications: Structural, electrical and morphological analysis. <i>Materials Research Bulletin</i> , 2012, 47, 2518-2524.	2.7	10
63	A fast synthesis route of boron-carbon-nitrogen ultrathin layers towards highly mixed ternary B-C-N phases. <i>2D Materials</i> , 2019, 6, 035015.	2.0	10
64	Open circuit photopotentials in n-FeS ₂ natural single-crystal/aqueous electrolyte junctions. <i>Solar Energy Materials and Solar Cells</i> , 1991, 22, 127-135.	0.4	9
65	Hysteresis-like behaviour of the thermoelectric voltage in photovoltaic materials. <i>Thin Solid Films</i> , 2006, 511-512, 177-181.	0.8	9
66	Role of cation diffusion in the formation mechanism and properties of cobalt-doped n-type pyrite thin films. <i>Journal of Materials Science</i> , 2013, 48, 4914-4924.	1.7	9
67	Integrating van der Waals materials on paper substrates for electrical and optical applications. <i>Applied Materials Today</i> , 2021, 23, 101012.	2.3	9
68	Electronic structure of copper nitrides as a function of nitrogen content. <i>Thin Solid Films</i> , 2013, 531, 588-591.	0.8	8
69	Improving the Efficiency of Thin Film Thermoelectric Generators under Constant Heat Flux by Using Substrates of Low Thermal Conductivity. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1800277.	1.2	7
70	Luminescence and photoelectrochemistry of CdS thin film electrodes. <i>Thin Solid Films</i> , 1985, 127, 305-312.	0.8	6
71	Nanocrystalline magnetite thin films grown by dual ion-beam sputtering. <i>Journal of Alloys and Compounds</i> , 2015, 636, 150-155.	2.8	6
72	Near room temperature power factor of metal sulfides films. <i>AIP Conference Proceedings</i> , 2012, , .	0.3	5

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73	On the van der Pauw's method applied to the measurement of low thermal conductivity materials. Review of Scientific Instruments, 2016, 87, 084902.	0.6	4
74	Imaging the Kirkendall effect in pyrite (FeS ₂) thin films: Cross-sectional microstructure and chemical features. Acta Materialia, 2021, 205, 116582.	3.8	4
75	Borocarbonitride Layers on Titanium Dioxide Nanoribbons for Efficient Photoelectrocatalytic Water Splitting. Materials, 2021, 14, 5490.	1.3	4
76	In situ electrical resistivity measurements during the sulphuration of pyrite and Fe thin films. Journal of Physics Condensed Matter, 1994, 6, 899-906.	0.7	3
77	A kinetic investigation of MgH ₂ formation/decomposition in non-catalysed MgO-Mg thin films. Journal of Alloys and Compounds, 2015, 645, S505-S508.	2.8	3
78	Hydrogen Storage by Titanium Based Sulfides: Nanoribbons (TiS ₃) and Nanoplates (TiS ₂). J of Electrical Engineering, 2015, 3, .	0.1	3
79	Optical properties of pyrite thin films annealed at different temperatures. , 1992, 1729, 172.		1
80	Thermoelectric figure of merit of M-sulphides (M=Fe, Co, Ni, Pd) thin films. , 0, , .		1
81	Design and construction of a thermoelectric module based on natural pyrite. , 2012, , .		1
82	Apparatus for measurements of transport properties of thin films under sulfur atmosphere at moderate temperatures. Measurement Science and Technology, 2015, 26, 045902.	1.4	1
83	Polynomial-interpolation algorithm for van der Pauw Hall measurement in a metal hydride film. Measurement Science and Technology, 2008, 19, 105106.	1.4	0