Isabel JÃ-menez Ferrer

List of Publications by Year
in descending order

83 papers	2,817 citations	159358 30 h-index	189595 50 g-index
85 all docs	85 docs citations	85 times ranked	3024 citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging the Kirkendall effect in pyrite (FeS2) thin films: Cross-sectional microstructure and chemical features. Acta Materialia, 2021, 205, 116582.	3.8	4
2	Integrating van der Waals materials on paper substrates for electrical and optical applications. Applied Materials Today, 2021, 23, 101012.	2.3	9
3	Borocarbonitride Layers on Titanium Dioxide Nanoribbons for Efficient Photoelectrocatalytic Water Splitting. Materials, 2021, 14, 5490.	1.3	4
4	Multi-terminal electronic transport in boron nitride encapsulated TiS₃ nanosheets. 2D Materials, 2020, 7, 015009.	2.0	14
5	Ultrathin Transparent Bâ€“Câ€“N Layers Grown on Titanium Substrates with Excellent Electrocatalytic Activity for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2020, 3, 1922-1932.	2.5	16
6	Raman Fingerprint of Pressure-Induced Phase Transitions in TiS₃ Nanoribbons: Implications for Thermal Measurements under Extreme Stress Conditions. ACS Applied Nano Materials, 2020, 3, 8794-8802.	2.4	15
7	Tunable Photodetectors via In Situ Thermal Conversion of TiS3 to TiO2. Nanomaterials, 2020, 10, 711.	1.9	14
8	A fast synthesis route of boronâ€“carbonâ€“nitrogen ultrathin layers towards highly mixed ternary Bâ€“Câ€“N phases. 2D Materials, 2019, 6, 035015.	2.0	10
9	Beyond Mono-, Di-, and Trisulfides: Synthesizing Vanadium Tetrasulfide (VS₄) Films for Energy Conversion. ACS Applied Energy Materials, 2018, 1, 2333-2340.	2.5	19
10	Chemical vapor deposition growth of boronâ€“carbonâ€“nitrogen layers from methylamine borane thermolysis products. Nanotechnology, 2018, 29, 025603.	1.3	21
11	Strain-induced band gap engineering in layered TiS3. Nano Research, 2018, 11, 225-232.	5.8	36
12	Polarizationâ€Sensitive and Broadband Photodetection Based on a Mixedâ€Dimensionality TiS₃/Si pâ€“n Junction. Advanced Optical Materials, 2018, 6, 1800351.	3.6	64
13	Improving the Efficiency of Thin Film Thermoelectric Generators under Constant Heat Flux by Using Substrates of Low Thermal Conductivity. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800277.	1.2	7
14	Large birefringence and linear dichroism in TiS₃ nanosheets. Nanoscale, 2018, 10, 12424-12429.	2.8	40
15	High Current Density Electrical Breakdown of TiS₃ Nanoribbonâ€Based Fieldâ€Effect Transistors. Advanced Functional Materials, 2017, 27, 1605647.	7.8	52
16	Electronics and optoelectronics of quasi-1D layered transition metal trichalcogenides. 2D Materials, 2017, 4, 022003.	2.0	146
17	Dielectrophoretic assembly of liquid-phase-exfoliated TiS₃ nanoribbons for photodetecting applications. Chemical Communications, 2017, 53, 6164-6167.	2.2	22
18	On the van der Pauwâ€™s method applied to the measurement of low thermal conductivity materials. Review of Scientific Instruments, 2016, 87, 084902.	0.6	4

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19	Influence of temperature on thermoelectric properties of FexCo1â^'xS2 thin films: A semiconductor to semimetal conversion. Thin Solid Films, 2016, 600, 19-24.	0.8	20
20	Hydrogen Photoassisted Generation by Visible Light and an Earth Abundant Photocatalyst: Pyrite (FeS₂). Journal of Physical Chemistry C, 2016, 120, 9547-9552.	1.5	37
21	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
22	Titanium trisulfide (TiS3): a 2D semiconductor with quasi-1D optical and electronic properties. Scientific Reports, 2016, 6, 22214.	1.6	107
23	Marcasite revisited: Optical absorption gap at room temperature. Solid State Communications, 2016, 230, 20-24.	0.9	29
24	Electronic Bandgap and Exciton Binding Energy of Layered Semiconductor TiS₃. Advanced Electronic Materials, 2015, 1, 1500126.	2.6	59
25	Titanium trisulphide (TiS₃) nanoribbons for easy hydrogen photogeneration under visible light. Journal of Materials Chemistry A, 2015, 3, 7959-7965.	5.2	39
26	A kinetic investigation of MgH2 formation/decomposition in non-catalysed MgOâ€"Mg thin films. Journal of Alloys and Compounds, 2015, 645, S505-S508.	2.8	3
27	Thermoelectric power of bulk black-phosphorus. Applied Physics Letters, 2015, 106, .	1.5	135
28	Nanocrystalline magnetite thin films grown by dual ion-beam sputtering. Journal of Alloys and Compounds, 2015, 636, 150-155.	2.8	6
29	TiS₃ Transistors with Tailored Morphology and Electrical Properties. Advanced Materials, 2015, 27, 2595-2601.	11.1	193
30	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
31	Temperature-Dependent Raman Spectroscopy of Titanium Trisulfide (TiS₃) Nanoribbons and Nanosheets. ACS Applied Materials & Interfaces, 2015, 7, 24185-24190.	4.0	89
32	Hydrogen Storage by Titanium Based Sulfides: Nanoribbons (TiS3) and Nanoplates (TiS2). J of Electrical Engineering, 2015, 3, .	0.1	3
33	Ultrahigh Photoresponse of Fewâ€Layer TiS₃ Nanoribbon Transistors. Advanced Optical Materials, 2014, 2, 641-645.	3.6	189
34	Iron Pyrite from Iron Thin Films: Identification of Intermediate Phases and Associated Conductivity-type Transitions. Journal of Physical Chemistry C, 2014, 118, 26440-26446.	1.5	15
35	Hydrogen Evolution Using Palladium Sulfide (PdS) Nanocorals as Photoanodes in Aqueous Solution. ACS Applied Materials & Interfaces, 2014, 6, 20544-20549.	4.0	42
36	Non-isothermal desorption process ofÂhydrogenated nanocrystalline Pd-capped MgÂfilms investigated by Ion Beam Techniques. International Journal of Hydrogen Energy, 2014, 39, 2587-2596.	3.8	18

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37	Thermal decomposition of non-catalysed MgH2 films. International Journal of Hydrogen Energy, 2014, 39, 9865-9870.	3.8	17
38	Role of cation diffusion in the formation mechanism and properties of cobalt-doped n-type pyrite thin films. Journal of Materials Science, 2013, 48, 4914-4924.	1.7	9
39	Optical properties of titanium trisulphide (TiS3) thin films. Thin Solid Films, 2013, 535, 398-401.	0.8	85
40	Electronic structure of copper nitrides as a function of nitrogen content. Thin Solid Films, 2013, 531, 588-591.	0.8	8
41	Design and construction of a thermoelectric module based on natural pyrite. , 2012, , .		1
42	Near room temperature power factor of metal sulfides films. AIP Conference Proceedings, 2012, , .	0.3	5
43	On the Photoelectrochemical Properties of TiS3 Films. Energy Procedia, 2012, 22, 48-52.	1.8	47
44	CuAlxGa1â^’xSe2 thin films for photovoltaic applications: Structural, electrical and morphological analysis. Materials Research Bulletin, 2012, 47, 2518-2524.	2.7	10
45	Hydrogen desorption in nanocrystalline MgH2 thin films at room temperature. Journal of Alloys and Compounds, 2010, 495, 650-654.	2.8	27
46	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
47	Ultrasonic irradiation as a tool to modify the H-desorption from hydrides: MgH2 suspended in decane. Ultrasonics Sonochemistry, 2009, 16, 810-816.	3.8	17
48	Cubic Pd₁₆S₇ as a Precursor Phase in the Formation of Tetragonal PdS by Sulfuration of Pd Thin Films. Journal of Physical Chemistry C, 2009, 113, 5329-5335.	1.5	21
49	Hydrogen Absorption/Desorption Mechanism in Potassium Alanate (KAlH₄) and Enhancement by TiCl₃ Doping. Journal of Physical Chemistry C, 2009, 113, 6845-6851.	1.5	48
50	Co distribution through n-type pyrite thin films. Thin Solid Films, 2008, 516, 7116-7119.	0.8	18
51	Polynomial-interpolation algorithm for van der Pauw Hall measurement in a metal hydride film. Measurement Science and Technology, 2008, 19, 105106.	1.4	0
52	An investigation on palladium sulphide (PdS) thin films as a photovoltaic material. Thin Solid Films, 2007, 515, 5783-5786.	0.8	50
53	Hysteresis-like behaviour of the thermoelectric voltage in photovoltaic materials. Thin Solid Films, 2006, 511-512, 177-181.	0.8	9
54	Grain and crystallite size in polycrystalline pyrite thin films. Thin Solid Films, 2005, 480-481, 477-481.	0.8	54

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55	On the growth and doping of Fe/Ti chalcogenide thin films. Solar Energy Materials and Solar Cells, 2005, 87, 575-582.	3.0	15
56	Lattice intrinsic defects and electrical resistivity in pyrite thin films. Thin Solid Films, 2004, 451-452, 233-236.	0.8	27
57	A methodology to reduce error sources in the determination of thin film chemical composition by EDAX. Thin Solid Films, 2004, 450, 207-210.	0.8	16
58	Electrical resistance evolution of Fe thin films during their sulphuration process. Applied Surface Science, 2004, 234, 355-361.	3.1	18
59	Formation of n-type pyrite films from electrodeposited iron sulphides: effect of annealing temperature. Materials Research Bulletin, 2003, 38, 1123-1133.	2.7	31
60	Majority carriers in pyrite thin films: an analysis based on Seebeck and Hall coefficient measurements. Thin Solid Films, 2003, 431-432, 511-513.	0.8	22
61	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
62	Growth of pyrite thin-films investigated by thermoelectric measurements. Thin Solid Films, 2001, 387, 97-99.	0.8	15
63	N-Type Pyrite Thin Films Obtained by Doping with Titanium. Solid State Phenomena, 2001, 80-81, 281-286.	0.3	10
64	Attachment of Thiobacillus ferrooxidans on synthetic pyrite of varying structural and electronic properties. Hydrometallurgy, 1999, 51, 115-129.	1.8	49
65	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
66	Structural and microstructural features of pyrite FeS_{2âˆ’<i>x</i>} thin films obtained by thermal sulfuration of iron. Journal of Materials Research, 1996, 11, 211-220.	1.2	53
67	The effect of Ni impurities on some structural properties of pyrite thin films. Journal of Physics Condensed Matter, 1995, 7, 2115-2121.	0.7	22
68	Temperature dependence of the optical absorption edge of pyrite FeS2thin films. Journal of Physics Condensed Matter, 1994, 6, 10177-10183.	0.7	19
69	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
70	Preparation of n-type doped FeS2 thin films. Solid State Communications, 1994, 89, 349-352.	0.9	41
71	Application of MÃ¶ssbauer spectroscopy to study the formation of iron pyrite thin films. Journal of Materials Science, 1993, 28, 389-393.	1.7	17
72	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

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73	Optical properties of pyrite thin films annealed at different temperatures. , 1992, 1729, 172.		1
74	Photoelectrochemical response and optical absorption of pyrite (FeS2) natural single crystals. Solid State Communications, 1992, 81, 371-374.	0.9	27
75	Open circuit photopotentials in n-FeS2 natural single-crystal/aqueous electrolyte junctions. Solar Energy Materials and Solar Cells, 1991, 22, 127-135.	0.4	9
76	Comparison of pyrite thin films obtained from Fe and natural pyrite powder. Applied Surface Science, 1991, 50, 505-509.	3.1	12
77	Characterization of FeS2thin films prepared by thermal sulfidation of flash evaporated iron. Journal of Applied Physics, 1991, 70, 2641-2647.	1.1	103
78	About the band gap nature of FeS2 as determined from optical and photoelectrochemical measurements. Solid State Communications, 1990, 74, 913-916.	0.9	158
79	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
80	Photoetching of polycrystalline nâ€CdS film electrodes in a photoelectrochemical cell: An electrolyte electroreflectance study. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1987, 91, 374-378.	0.9	10
81	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
82	Luminescence and photoelectrochemistry of CdS thin film electrodes. Thin Solid Films, 1985, 127, 305-312.	0.8	6
83	Thermoelectric figure of merit of M-sulphides (M=Fe, Co, Ni, Pd) thin films. , 0, , .		1