Klaus Ellmer

List of Publications by Year
in descending order

52 papers	3,906 citations	279798 23 h-index	182427 51 g-index
54 all docs	54 docs citations	54 times ranked	5925 citing authors

#	Article	IF	Citations
1	Thin film transition metal dichalcogenide photoelectrodes for solar hydrogen evolution: a review. Journal of Materials Chemistry A, 2022, 10, 9327-9347.	10.3	16
2	Electrical and Optical Properties of Amorphous SnO2:Ta Films, Prepared by DC and RF Magnetron Sputtering: A Systematic Study of the Influence of the Type of the Reactive Gas. Coatings, 2020, 10, 204.	2.6	11
3	Elucidating the Pulsed Laser Deposition Process of BiVO₄ Photoelectrodes for Solar Water Splitting. Journal of Physical Chemistry C, 2020, 124, 4438-4447.	3.1	35
4	Evaluation of Pt, Rh, SnO2, (NH4)2Mo3S13, BaSO4 protection coatings on WSe2 photocathodes for solar hydrogen evolution. International Journal of Hydrogen Energy, 2020, 45, 19112-19120.	7.1	14
5	Evidence for the AlZn-Oi defect-complex model for magnetron-sputtered aluminum-doped zinc oxide: A combined X-ray absorption near edge spectroscopy, X-ray diffraction and electronic transport study. Journal of Applied Physics, 2019, 126, 045106.	2.5	10
6	Passivation of recombination active PdSex centers in (001)-textured photoactive WSe2 films. Materials Science in Semiconductor Processing, 2019, 93, 284-289.	4.0	20
7	Energy-Dependent RBS Channelling Analysis of Epitaxial ZnO Layers Grown on ZnO by RF-Magnetron Sputtering. Crystals, 2019, 9, 290.	2.2	5
8	Efficient charge transfer at a homogeneously distributed (NH₄)₂Mo₃S₁₃/WSe₂ heterojunction for solar hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 10769-10780.	10.3	35
9	Energy-Band Alignment of BiVO₄ from Photoelectron Spectroscopy of Solid-State Interfaces. Journal of Physical Chemistry C, 2018, 122, 20861-20870.	3.1	38
10	In Situ Structural Study of MnP_i-Modified BiVO₄ Photoanodes by Soft X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 19668-19676.	3.1	26
11	A multifunctional plasma and deposition sensor for the characterization of plasma sources for film deposition and etching. Journal of Applied Physics, 2017, 122, 044503.	2.5	4
12	Highly (001)-textured p-type WSe2 Thin Films as Efficient Large-Area Photocathodes for Solar Hydrogen Evolution. Scientific Reports, 2017, 7, 16003.	3.3	39
13	Defect analysis by transmission electron microscopy of epitaxial Al-doped ZnO films grown on (0001) ZnO and <i>a</i>-sapphire by RF magnetron sputtering. Journal of Applied Physics, 2016, 120, .	2.5	10
14	Voltage-controlled reactive magnetron sputtering of Nb-doped TiO2 films: electrical and optical properties. MRS Advances, 2016, 1, 3139-3144.	0.9	0
15	BiVO4 photoanodes for water splitting with high injection efficiency, deposited by reactive magnetron co-sputtering. AIP Advances, 2016, 6, .	1.3	45
16	Analysis of the early stages of the rapid, nickel-assisted crystallization of WS2 films. Journal of Applied Physics, 2016, 120, 165307.	2.5	3
17	Intrinsic and extrinsic doping of ZnO and ZnO alloys. Journal Physics D: Applied Physics, 2016, 49, 413002.	2.8	146
18	Reactive magnetron sputtering of Nb-doped TiO2 films: Relationships between structure, composition and electrical properties. Thin Solid Films, 2016, 605, 44-52.	1.8	44

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19	Toward efficient Cu(In,Ga)Se₂ solar cells prepared by reactive magnetron coâ€sputtering from metallic targets in an Ar:H₂Se atmosphere. Progress in Photovoltaics: Research and Applications, 2015, 23, 1793-1805.	8.1	5
20	Microstructure evolution of Al-doped zinc oxide and Sn-doped indium oxide deposited by radio-frequency magnetron sputtering: A comparison. Journal of Applied Physics, 2015, 117, 155301.	2.5	13
21	Reactive magnetron co-sputtering of Cu(In,Ga)Se 2 absorber layers by a 2-stage process: Role of substrate type and Na-doping. Thin Solid Films, 2015, 582, 95-99.	1.8	4
22	Research Update: Inhomogeneous aluminium dopant distribution in magnetron sputtered ZnO:Al thin films and its influence on their electrical properties. APL Materials, 2015, 3, .	5.1	17
23	Morphology and structure evolution of tin-doped indium oxide thin films deposited by radio-frequency magnetron sputtering: The role of the sputtering atmosphere. Journal of Applied Physics, 2014, 115, .	2.5	7
24	Analytical model of electron transport in polycrystalline, degenerately doped ZnO films. Journal of Applied Physics, 2014, 116, .	2.5	50
25	Morphology and structure evolution of Cu(In,Ga)S2 films deposited by reactive magnetron co-sputtering with electron cyclotron resonance plasma assistance. Journal of Applied Physics, 2014, 115, 084902.	2.5	3
26	Preparation of highly (001)-oriented photoactive tungsten diselenide (WSe₂) films by an amorphous solid-liquid-crystalline solid (aSLcS) rapid-crystallization process. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2013-2019.	1.8	22
27	Comparison of ion energies and fluxes at the substrate during magnetron sputtering of ZnOâ€‰:â€‰Al for dc and rf discharges. Journal Physics D: Applied Physics, 2013, 46, 315202.	2.8	25
28	Nucleation and phase formation during reactive magnetron co-sputtering of Cu(In,Ga)S2 films, investigated by in situ EDXRD. Journal of Crystal Growth, 2013, 384, 114-121.	1.5	4
29	Growth and morphology of thin Cu(In,Ga)S2 films during reactive magnetron co-sputtering. Thin Solid Films, 2013, 536, 172-178.	1.8	14
30	The correlation between the radial distribution of high-energetic ions and the structural as well as electrical properties of magnetron sputtered ZnO:Al films. Journal of Applied Physics, 2013, 114, .	2.5	28
31	Ruthenium sulphide thin layers as catalysts for the electrooxidation of water. Physical Chemistry Chemical Physics, 2013, 15, 1452-1459.	2.8	10
32	An energy-dispersive X-ray diffraction study of the nickel-sulfide assisted growth of RuS2 thin films by reactive magnetron sputtering. Journal of Crystal Growth, 2013, 363, 277-281.	1.5	3
33	Negative ions in reactive magnetron sputtering. Vakuum in Forschung Und Praxis, 2013, 25, 52-56.	0.1	13
34	The impact of negative oxygen ion bombardment on electronic and structural properties of magnetron sputtered ZnO:Al films. Applied Physics Letters, 2013, 102, .	3.3	63
35	A comparative study of electronic and structural properties of polycrystalline and epitaxial magnetron-sputtered ZnO:Al and Zn1-xMgxO:Al Filmsâ€"Origin of the grain barrier traps. Journal of Applied Physics, 2013, 114, .	2.5	35
36	Negative oxygen ion formation in reactive magnetron sputtering processes for transparent conductive oxides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	41

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37	Influence of the deposition temperature on electronic transport and structural properties of radio frequency magnetron-sputtered Zn_{1-x}Mg_xO:Al and ZnO:Al films. Journal of Materials Research, 2012, 27, 2249-2256.	2.6	25
38	Past achievements and future challenges in the development of optically transparent electrodes. Nature Photonics, 2012, 6, 809-817.	31.4	1,688
39	Reactive magnetron sputtering of transparent conductive oxide thin films: Role of energetic particle (ion) bombardment. Journal of Materials Research, 2012, 27, 765-779.	2.6	115
40	A combined sensor for the diagnostics of plasma and film properties in magnetron sputtering processes. Thin Solid Films, 2012, 520, 6429-6433.	1.8	8
41	Metalâ€sulfide assisted rapid crystallization of highly (001)â€textured tungsten disulphide (WS₂) films on metallic back contacts. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 317-322.	1.8	15
42	Observation of the Magnetic Separatrix Between a Magnetron and an Electron-Cyclotron Resonance Discharge. IEEE Transactions on Plasma Science, 2011, 39, 2464-2465.	1.3	0
43	The influence of the target age on laterally resolved ion distributions in reactive planar magnetron sputtering. Surface and Coatings Technology, 2011, 205, S294-S298.	4.8	35
44	Reactive magnetron sputtering of CuInS2 absorbers for thin film solar cells: Problems and prospects. Thin Solid Films, 2009, 517, 3143-3147.	1.8	39
45	Carrier transport in polycrystalline transparent conductive oxides: A comparative study of zinc oxide and indium oxide. Thin Solid Films, 2008, 516, 4620-4627.	1.8	321
46	Niobiumâ€doped TiO₂ films as window layer for chalcopyrite solar cells. Physica Status Solidi (B): Basic Research, 2008, 245, 1849-1857.	1.5	11
47	Preface: phys. stat. sol. (b) 245/9. Physica Status Solidi (B): Basic Research, 2008, 245, 1741-1742.	1.5	1
48	Laudatio for Professor Helmut Tributsch. Physica Status Solidi (B): Basic Research, 2008, 245, 1743-1744.	1.5	1
49	Carrier transport in polycrystalline ITO and ZnO:Al II: The influence of grain barriers and boundaries. Thin Solid Films, 2008, 516, 5829-5835.	1.8	164
50	Voltage bias dependency of the space charge capacitance of wet chemically grown ZnO nanorods employed in a dye sensitized photovoltaic cell. Thin Solid Films, 2008, 516, 7139-7143.	1.8	19
51	Electrical transport parameters of heavily-doped zinc oxide and zinc magnesium oxide single and multilayer films heteroepitaxially grown on oxide single crystals. Thin Solid Films, 2006, 496, 104-111.	1.8	72
52	Magnetron sputtering of transparent conductive zinc oxide: relation between the sputtering parameters and the electronic properties. Journal Physics D: Applied Physics, 2000, 33, R17-R32.	2.8	527