

# S J C Irvine

## List of Publications by Year in descending order

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48  
papers

1,175  
citations

516215

16  
h-index

377514

34  
g-index

48  
all docs

48  
docs citations

48  
times ranked

1009  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Confirmation of the Predicted Shallow Donor Hydrogen State in Zinc Oxide. <i>Physical Review Letters</i> , 2001, 86, 2601-2604.	2.9	415
2	Impedance spectroscopy of thin-film CdTe/CdS solar cells under varied illumination. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	68
3	Grain and crystal texture properties of absorber layers in MOCVD-grown CdTe/CdS solar cells. <i>Semiconductor Science and Technology</i> , 2006, 21, 763-770.	1.0	65
4	The growth of $Cd_xHg_{1-x}Te$ using organometallics. <i>Journal of Vacuum Science and Technology</i> , 1982, 21, 178-181.	1.9	52
5	A study of the structure and electrical properties of $Cd_xHg_{1-x}Te$ grown by metalorganic vapor phase epitaxy (interdiffused multilayer process). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1989, 7, 285-290.	0.9	41
6	Spatially resolved characterization of HgCdTe materials and devices by scanning laser microscopy. <i>Semiconductor Science and Technology</i> , 1993, 8, 872-887.	1.0	36
7	Modeling of in situ monitored laser reflectance during MOCVD growth of HgCdTe. <i>Journal of Electronic Materials</i> , 1993, 22, 899-906.	1.0	30
8	Reduction of threading dislocation density in GaN using an intermediate temperature interlayer. <i>Applied Physics Letters</i> , 2000, 77, 3562-3564.	1.5	30
9	A Study of UV Absorption Spectra and Photolysis of Some Group II and Group VI Alkyls. <i>Journal of the Electrochemical Society</i> , 1985, 132, 968-972.	1.3	28
10	MOCVD of highly conductive CdO thin films. <i>Journal of Materials Science: Materials in Electronics</i> , 2004, 15, 369-372.	1.1	25
11	As diffusion in $Hg_{1-x}Cd_xTe$ for junction formation. <i>Semiconductor Science and Technology</i> , 1993, 8, S270-S275.	1.0	24
12	The use of in situ laser interferometry for MOCVD process control. <i>Semiconductor Science and Technology</i> , 1998, 13, 1407-1411.	1.0	24
13	Orientation Effects on the Heteroepitaxial Growth of $Cd_xHg_{1-x}Te$ on to CdTe and GaAs. <i>Materials Research Society Symposia Proceedings</i> , 1986, 90, 389.	0.1	22
14	MOCVD-grown wider-bandgap capping layers in long-wavelength infrared photoconductors. <i>Semiconductor Science and Technology</i> , 1996, 11, 1912-1922.	1.0	18
15	Study of microinhomogeneities in midwave infrared mercury cadmium telluride grown by metalorganic chemical vapor deposition-interdiffused multilayer process onto GaAs and GaAs/Si substrates. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B. Microelectronics Processing and Phenomena</i> , 1992, 10, 1392.	1.6	17
16	Dynamic vapor pressure measurements of the dimethyl zinc-triethylamine adduct using an ultrasonic monitor. <i>Applied Physics Letters</i> , 1996, 68, 1294-1296.	1.5	17
17	Laser-induced selected area epitaxy of CdTe and HgTe. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990, 8, 1059-1066.	0.9	16
18	MOVPE growth of HgCdTe. <i>Semiconductor Science and Technology</i> , 1991, 6, C15-C21.	1.0	16

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19	A new N-type doping precursor for MOCVD-IMP growth of detector quality MCT. Journal of Electronic Materials, 1993, 22, 859-864.	1.0	16
20	CdCl <sub>2</sub> treatment related diffusion phenomena in Cd <sub>1-x</sub> Zn <sub>x</sub> S/CdTe solar cells. Journal of Applied Physics, 2014, 115, .	1.1	16
21	Integrated In Situ wafer and system monitoring for the growth of CdTe/ZnTe/GaAs/Si for mercury cadmium telluride epitaxy. Journal of Electronic Materials, 1995, 24, 457-465.	1.0	15
22	In situ characterization techniques for monitoring and control of VPE growth of Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Semiconductor Science and Technology, 1993, 8, 860-871.	1.0	14
23	Infrared photoluminescence characterization of long-wavelength HgCdTe detector materials. Semiconductor Science and Technology, 1993, 8, 941-945.	1.0	14
24	Comparative study of trap densities of states in CdTe•CdS solar cells. Applied Physics Letters, 2007, 91, 153505.	1.5	14
25	Selected area epitaxy in II-VI compounds by laser-induced photo-metalorganic vapor phase epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1989, 7, 1191.	1.6	13
26	1,1-Dimethylhydrazine as a high purity nitrogen source for MOVPE-water reduction and quantification using nuclear magnetic resonance, gas chromatography-atomic emission detection spectroscopy and cryogenic-mass spectroscopy analytical techniques. Journal of Electronic Materials, 2000, 29, 161-164.	1.0	12
27	Integrated in situ monitoring of a metalorganic vapor phase epitaxy reactor for II-VI epitaxy. Journal of Electronic Materials, 1994, 23, 167-173.	1.0	11
28	New mechanisms in photo-assisted MOVPE of II-VI semiconductors. Journal of Electronic Materials, 1997, 26, 723-727.	1.0	11
29	Title is missing!. Journal of Materials Science: Materials in Electronics, 2003, 14, 559-566.	1.1	10
30	Chemical analysis of Cd <sub>1-x</sub> Zn <sub>x</sub> S/CdTe solar cells by plasma profiling TOFMS. Materials Research Innovations, 2014, 18, 82-85.	1.0	10
31	Metal-organic vapour phase epitaxy. , 1997, , 71-96.		10
32	The kinetics of the growth of nitrogen-doped ZnSe grown by photo-assisted MOVPE. Journal of Electronic Materials, 1998, 27, 763-768.	1.0	9
33	Interdiffused Multilayer Processing (IMP) in Alloy Growth. Materials Research Society Symposia Proceedings, 1986, 90, 367.	0.1	7
34	P-type doping of double layer mercury cadmium telluride for junction formation. Journal of Electronic Materials, 1995, 24, 617-624.	1.0	7
35	Uv Absorption Spectra and Photolysis of Some Group II and Group VI Alkyls. Materials Research Society Symposia Proceedings, 1983, 29, 253.	0.1	5
36	Title is missing!. Journal of Materials Science: Materials in Electronics, 1998, 9, 211-216.	1.1	5

#	ARTICLE	IF	CITATIONS
37	Variation of the effective extinction coefficient during pyrolytic and photo-assisted II-VI MOVPE growth, measured by in situ laser interferometry. Semiconductor Science and Technology, 1998, 13, 1412-1417.	1.0	5
38	Investigation into ultrathin CdTe solar cell Voc using SCAPS modelling. Materials Research Innovations, 2014, 18, 505-508.	1.0	5
39	Insights into MOCVD process control as revealed by laser interferometry. Journal of Electronic Materials, 1999, 28, 712-717.	1.0	4
40	In-situ post annealing treatment of nitrogen-doped ZnSe grown using photo-assisted MOVPE. Journal of Electronic Materials, 2000, 29, 169-172.	1.0	4
41	Data on dopant characteristics and band alignment of CdTe cells with and without a ZnO highly-resistive-transparent buffer layer. Data in Brief, 2019, 22, 218-221.	0.5	4
42	The application of a statistical methodology to investigate deposition parameters in CdTe/CdS solar cells grown by MOCVD. Journal of Materials Science: Materials in Electronics, 2008, 19, 639-645.	1.1	3
43	Low Temperature Growth of HgTe by a UV Photosensitisation Method. Springer Series in Chemical Physics, 1984, , 234-238.	0.2	3
44	Importance of initial nucleation step on low temperature photoassisted MOVPE growth of ZnSe. Journal of Materials Science: Materials in Electronics, 1999, 10, 595-600.	1.1	2
45	Comparative study of conventional vs. one-step-interconnected (OSI) monolithic CdTe modules. Materials Research Innovations, 2015, 19, 488-493.	1.0	2
46	Developing Monolithically Integrated CdTe Devices Deposited by AP-MOCVD. Materials Research Society Symposia Proceedings, 2013, 1538, 275-280.	0.1	0
47	Photochemical Vapour Deposition of Thin Films. , 2002, , 199-222.		0
48	Mechanisms in the Photochemical Growth of Cadmium Mercury Telluride. NATO ASI Series Series B: Physics, 1989, , 243-252.	0.2	0