

# Patrick W Leech

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8286419/publications.pdf>

Version: 2024-02-01

93  
papers

646  
citations

567281  
15  
h-index

642732  
23  
g-index

93  
all docs

93  
docs citations

93  
times ranked

684  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modified sheet resistance and specific contact resistance of Ni-, Pt- and Ti-based contacts to n-type 3C-SiC. MRS Advances, 2021, 6, 445-449.	0.9	0
2	Ohmic contacts to n-type 3C-SiC using Cr/Ni/Au and Ni/Cr/Au metallizations. Microelectronic Engineering, 2019, 215, 111016.	2.4	5
3	TCAD simulation of a single Monolithic Active Pixel Sensors based on High Voltage CMOS technology. MRS Advances, 2018, 3, 3053-3059.	0.9	0
4	Low Energy Ion Implantation and Annealing of Au/Ni/Ti Contacts to n-SiC. MRS Advances, 2017, 2, 2903-2908.	0.9	0
5	Analytical test structure model for determining lateral effects of tri-layer ohmic contact beyond the contact edge. Facta Universitatis - Series Electronics and Energetics, 2017, 30, 257-265.	0.9	0
6	Optimising the Rectification Ratio of Schottky Diodes in n-SiC and n-Si by TCAD. MRS Advances, 2016, 1, 3655-3660.	0.9	3
7	Modified Linear Transmission Line Model Test Structure for Determining Specific Contact Resistance. MRS Advances, 2016, 1, 157-162.	0.9	0
8	Ti/Ni/Au contacts to n-SiC after low energy implantation. Materials Letters, 2016, 166, 39-42.	2.6	2
9	Effect of Low Energy Implantation on the Properties of Ti/Ni/Au Contacts to n-SiC. Materials Research Society Symposia Proceedings, 2015, 1743, 39.	0.1	0
10	Graphitic Schottky Contacts to Si formed by Energetic Deposition. Materials Research Society Symposia Proceedings, 2015, 1786, 51-56.	0.1	5
11	The Study of Morphological Structure and Raman Spectra of 3C-SiC Membranes. Applied Mechanics and Materials, 2014, 554, 66-70.	0.2	1
12	Ohmic and rectifying contacts to n-SiC formed by energetic deposition of carbon. Materials Research Society Symposia Proceedings, 2014, 1693, 87.	0.1	1
13	Low Temperature of formation of Nickel Germanide by reaction of Nickel and Crystalline Germanium. Materials Research Society Symposia Proceedings, 2014, 1655, 1.	0.1	0
14	Laser surface melting of a complex high alloy steel. Materials & Design, 2014, 54, 539-543.	5.1	19
15	Low specific contact resistivity nickel to silicon carbide determined using a two contact circular test structure. , 2014, , .		0
16	Low temperature of formation of nickel germanide on crystalline germanium. , 2014, , .		0
17	Analytical and Finite-Element Modeling of a Two-Contact Circular Test Structure for Specific Contact Resistivity. IEEE Transactions on Electron Devices, 2013, 60, 1202-1207.	3.0	15
18	SU-8 photolithography on reactive plasma thin-films: coated microwells for peptide display. Colloids and Surfaces B: Biointerfaces, 2013, 108, 313-321.	5.0	12

#	ARTICLE	IF	CITATIONS
19	Investigating extremely low resistance ohmic contacts to silicon carbide using a novel test structure. , 2013, , .		0
20	Comparison of abrasive wear of a complex high alloy hardfacing deposit and WCâ€“Ni based metal matrix composite. Wear, 2012, 294-295, 380-386.	3.1	43
21	One step multifunctional micropatterning of surfaces using asymmetric glow discharge plasma polymerization. Chemical Communications, 2012, 48, 1907.	4.1	18
22	Effect of norbornene content on deformation properties and hot embossing of cyclic olefin copolymers. Journal of Materials Science, 2010, 45, 5364-5369.	3.7	4
23	Effect of norbornene content on laser ablation of cyclic olefin copolymers. Materials & Design, 2010, 31, 4858-4861.	5.1	5
24	Hot Embossing of Microfluidic Channel Structures in Cyclic Olefin Copolymers. Materials Research Society Symposia Proceedings, 2010, 1272, 1.	0.1	0
25	Production of monodispersed micron-sized bubbles at high rates in a microfluidic device. Applied Physics Letters, 2009, 95, .	3.3	36
26	Hot Embossing Of Microchannels in Cyclic Olefin Copolymers. Materials Research Society Symposia Proceedings, 2009, 1191, 18.	0.1	2
27	Laser ablation of multilayered hot stamping foil. Journal of Materials Processing Technology, 2009, 209, 4281-4285.	6.3	4
28	Patterning of PLZT and PSZT thin films by excimer laser. Applied Physics A: Materials Science and Processing, 2008, 91, 679-684.	2.3	6
29	Pattern replication in polypropylene films by hot embossing. Microelectronic Engineering, 2008, 85, 181-186.	2.4	3
30	Structuring of grating arrays in multilayered foil by excimer laser. , 2008, , .		0
31	Microfluidic production of ultrasound contrast agents with a capillary gas jet PDMS microchip. , 2008, , .		0
32	UV Laser Ablation of PLZT and PSZT Films. Materials Research Society Symposia Proceedings, 2008, 1075, 1.	0.1	0
33	Hand-held analyser based on microchip electrophoresis with contactless conductivity detection for measurement of chemical warfare agent degradation products. Proceedings of SPIE, 2008, , .	0.8	1
34	Rapid prototyping of microfluidic chips for use in droplet formation and in-vitro compartmentalisation. Proceedings of SPIE, 2008, , .	0.8	1
35	Hot Embossing of Electron Beam Generated Structures in Polypropylene. Materials Research Society Symposia Proceedings, 2007, 1002, 1.	0.1	0
36	Optical image formation using surface relief micrographic picture elements. Microelectronic Engineering, 2007, 84, 669-672.	2.4	2

#	ARTICLE	IF	CITATIONS
37	Hot embossing of diffractive optically variable images in biaxially-oriented polypropylene. Microelectronic Engineering, 2007, 84, 25-30.	2.4	10
38	Hot embossing of micrographic elements in polypropylene. Microelectronic Engineering, 2007, 84, 109-113.	2.4	15
39	Effect of prior C, Si and Sn implantation on the etch rate of CVD diamond. Diamond and Related Materials, 2006, 15, 1266-1270.	3.9	1
40	New applications of modulated digital images in document security. , 2006, , .		0
41	Printing via hot embossing of optically variable images in thermoplastic acrylic lacquer. Microelectronic Engineering, 2006, 83, 1961-1965.	2.4	10
42	Optically variable micro-mirror arrays fabricated by graytone lithography. Microelectronic Engineering, 2006, 83, 351-356.	2.4	13
43	Optically variable watermark (OVW) microstructures for transparent substrates. Microelectronic Engineering, 2006, 83, 2004-2008.	2.4	5
44	Replication of Grating-Based Optically Variable Devices in Polypropylene. Materials Research Society Symposia Proceedings, 2006, 961, 1.	0.1	0
45	Patterning and Reactive Ion Etching of Diamond Films using Light Coupling Masks. Materials Research Society Symposia Proceedings, 2004, 820, 312.	0.1	4
46	The effect of Au and O implantation on the etch rate of CVD diamond. Applied Surface Science, 2004, 221, 302-307.	6.1	3
47	Universal Error Corrections for Finite Semiconductor Resistivity in Cross-Kelvin Resistor Test Structures. IEEE Transactions on Electron Devices, 2004, 51, 914-919.	3.0	19
48	Fabrication of hologram coins using electron beam lithography. Microelectronic Engineering, 2004, 71, 171-176.	2.4	5
49	Microrelief structures for anti-counterfeiting applications. Microelectronic Engineering, 2003, 65, 439-446.	2.4	13
50	Fabrication of Hologram Coins using Electron Beam Lithography. Materials Research Society Symposia Proceedings, 2003, 777, 851.	0.1	1
51	Fabrication of Micro-Relief Structures in Thick Resist for Anti-Counterfeiting Applications. Materials Research Society Symposia Proceedings, 2002, 741, 441.	0.1	0
52	Ion Beam Etching of CVD Diamond Enhanced by Prior Au and O Implantation.. Materials Research Society Symposia Proceedings, 2002, 750, 1.	0.1	0
53	Ion beam etching of CVD diamond film in Ar, Ar/O <sub>2</sub> and Ar/CF <sub>4</sub> gas mixtures. Diamond and Related Materials, 2002, 11, 833-836.	3.9	30
54	Enhancement of the etch rate of CVD diamond by prior C and Ge implantation. Diamond and Related Materials, 2002, 11, 837-840.	3.9	3

#	ARTICLE	IF	CITATIONS
55	Scanning probe microscope analysis of microstructures in optically variable devices. Microelectronic Engineering, 2002, 60, 339-346.	2.4	7
56	Reactive Ion Etching of CVD Diamond in CF <sub>4</sub> /O <sub>2</sub> , O <sub>2</sub> and O <sub>2</sub> /Ar Plasmas. Materials Research Society Symposia Proceedings, 2000, 622, 6361.	0.1	0
57	Enhancement of the etch rate of LiNbO <sub>3</sub> by prior bombardment with MeV O <sub>2</sub> <sup>+</sup> ions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 3358-3361.	2.1	5
58	Reactive ion etching of quartz and silica-based glasses in CF <sub>4</sub> /CHF <sub>3</sub> plasmas. Vacuum, 1999, 55, 191-196.	3.5	63
59	Effect of MeV O <sub>2</sub> <sup>+</sup> implantation on the reactive ion etch rate of LiTaO <sub>3</sub> . Nuclear Instruments & Methods in Physics Research B, 1999, 159, 187-190.	1.4	1
60	Reactive ion etching of quartz and glasses for microfabrication. , 1999, , .		1
61	Resonant grating filter with low out-of-band reflectance. , 1999, , .		0
62	A broadband model for Hg <sub>1-x</sub> Cd <sub>x</sub> Te MSM detectors. Solid-State Electronics, 1998, 42, 188-189.	1.4	1
63	Thermal stability of Pd/Zn and Pt based contacts to p-In <sub>0.53</sub> Ga <sub>0.47</sub> As/InP with various barrier layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 227.	1.6	3
64	Reactive ion etching of piezoelectric materials in CF <sub>4</sub> /CHF <sub>3</sub> plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2037-2041.	2.1	23
65	Effect of layer structure on the electrical properties of contacts to p-type In <sub>0.53</sub> Ga <sub>0.47</sub> As/InP. Thin Solid Films, 1997, 298, 9-13.	1.8	7
66	Modelling Geometrical Effects of Parasitic and Contact Resistance of FET Devices. Materials Research Society Symposia Proceedings, 1996, 427, 147.	0.1	1
67	UV photosensitivity in PECVD-grown germanosilicate waveguides. , 1996, , .		0
68	X-ray Photoelectron Spectroscopy Study of Optical Waveguide Glasses. Surface and Interface Analysis, 1996, 24, 605-610.	1.8	48
69	An Electrical Model for Multilayered n <sup>+</sup> /n and Heterostructure Planar Ohmic Contacts. Materials Research Society Symposia Proceedings, 1995, 382, 443.	0.1	1
70	Waveguides Fabricated in Fused Silica by Germanium Ion Implantation at Varying Doses. Materials Research Society Symposia Proceedings, 1995, 392, 255.	0.1	1
71	Waveguide Formation in Silica by Implantation with Si, P and Ge ions. Materials Research Society Symposia Proceedings, 1995, 396, 417.	0.1	0
72	The modified sheet resistance of indium contacts to n-type Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Solid-State Electronics, 1995, 38, 781-785.	1.4	3

#	ARTICLE	IF	CITATIONS
73	Understanding the sheet resistance parameter of alloyed ohmic contacts using a transmission line model. Solid-State Electronics, 1995, 38, 745-751.	1.4	14
74	Nuclear microprobe analysis of Hg <sub>1-x</sub> Cd <sub>x</sub> Te metal-semiconductor-metal detectors on substrates of GaAs and GaAs/Si. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 21-25.	2.1	2
75	Modified sheet resistance of ohmic contacts to n-type In <sub>0.47</sub> Ga <sub>0.53</sub> As/InP. Journal of Applied Physics, 1995, 77, 2544-2548.	2.5	2
76	Electrical characteristics and thermal stability of ohmic contacts to n-type In <sub>0.47</sub> Ga <sub>0.53</sub> As/InP. Journal of Applied Physics, 1995, 77, 3908-3912.	2.5	4
77	Pd/Zn/Pd/Au ohmic contacts to n-type In <sub>0.47</sub> Ga <sub>0.53</sub> As/InP. Journal of Applied Physics, 1994, 76, 4713-4718.	2.5	19
78	Studies of MOCVD grown HgCdMnTe by ion beam and related techniques. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 929-932.	1.4	0
79	Low Resistance Ohmic Contacts to n-Hg <sub>1-x</sub> Cd <sub>x</sub> Te Using a HgTe Cap Layer. Materials Research Society Symposia Proceedings, 1994, 299, 109.	0.1	1
80	Mapping of Defects in Metal-Semiconductor-Metal (MSM) Detectors in Hg <sub>1-x</sub> Cd <sub>x</sub> Te by Nuclear Microprobe. Materials Research Society Symposia Proceedings, 1994, 299, 163.	0.1	0
81	Antimony sources for MOCVD. The use of Et <sub>4</sub> Sb <sub>2</sub> as a p-type dopant for Hg <sub>1-x</sub> Cd <sub>x</sub> Te and crystal structure of the adduct [Et <sub>4</sub> Sb <sub>2</sub> · 2CdI <sub>2</sub> ] <sub>n</sub> . Journal of Organometallic Chemistry, 1993, 449, 131-139.	1.8	16
82	Mapping of Defects in Metal-Semiconductor-Metal (MSM) Detectors in Hg <sub>1-x</sub> Cd <sub>x</sub> Te by Nuclear Microprobe. Materials Research Society Symposia Proceedings, 1993, 302, 411.	0.1	0
83	Electrical Modelling and Characterisation of Alloyed Ohmic Contacts. Materials Research Society Symposia Proceedings, 1993, 318, 153.	0.1	3
84	Ohmic Contacts to p-Type InGaAs/InP with a Graded Bandgap Heterobarrier. Materials Research Society Symposia Proceedings, 1993, 318, 183.	0.1	5
85	Specific contact resistance of indium ohmic contacts to n-type Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 105-109.	2.1	12
86	Ion Beam Treatment of Ohmic Contacts to n-TYPE Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Materials Research Society Symposia Proceedings, 1992, 260, 281.	0.1	0
87	Ion Beam Etching System for Mercury Cadmium Telluride and III-V Compound Semiconductors. Materials Research Society Symposia Proceedings, 1991, 236, 253.	0.1	0
88	Novel CH <sub>4</sub> /H <sub>2</sub> metalorganic reactive ion etching of Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Applied Physics Letters, 1991, 59, 1752-1754.	3.3	23
89	Properties of Schottky diodes on n-type Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 1770.	1.6	8
90	Ohmic Contacts on N-Type Hg <sub>0.4</sub> Cd <sub>0.6</sub> Te.. Materials Research Society Symposia Proceedings, 1990, 216, 155.	0.1	3

#	ARTICLE	IF	CITATIONS
91	Integrated MSM-FET Photoreceiver Fabricated on MOCVD Grown Hg <sub>1-x</sub> Cd <sub>x</sub> Te. Materials Research Society Symposia Proceedings, 1990, 216, 11.	0.1	0
92	The specific contact resistance of Ohmic contacts to HgTe/Hg <sub>1-x</sub> Cd <sub>x</sub> Te heterostructures. Journal of Applied Physics, 1990, 68, 907-909.	2.5	9
93	Observations of adiabatic shear band formation in 7039 aluminum alloy. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 1900-1903.	1.4	40