Robert W Kay

List of Publications by Year
in descending order

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54	1,377	567281 15	377865 34
papers	citations	h-index	g-index

54	54	54	1612
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanosecond laser textured superhydrophobic metallic surfaces and their chemical sensing applications. Applied Surface Science, 2015, 357, 248-254.	6.1	298
2	A review of aerosol jet printingâ€"a non-traditional hybrid process for micro-manufacturing. International Journal of Advanced Manufacturing Technology, 2019, 105, 4599-4619.	3.0	248
3	Laser textured superhydrophobic surfaces and their applications for homogeneous spot deposition. Applied Surface Science, 2016, 365, 153-159.	6.1	236
4	Laser textured surface gradients. Applied Surface Science, 2016, 371, 583-589.	6.1	83
5	Multifunctional metal matrix composites with embedded printed electrical materials fabricated by ultrasonic additive manufacturing. Composites Part B: Engineering, 2017, 113, 342-354.	12.0	54
6	Hybrid additive manufacturing of 3D electronic systems. Journal of Micromechanics and Microengineering, 2016, 26, 105005.	2.6	41
7	A review of stencil printing for microelectronic packaging. Soldering and Surface Mount Technology, 2012, 24, 38-50.	1.5	39
8	Dynamically controlled deposition of colloidal nanoparticle suspension in evaporating drops using laser radiation. Soft Matter, 2016, 12, 4530-4536.	2.7	32
9	A Rapid Photopatterning Method for Selective Plating of 2D and 3D Microcircuitry on Polyetherimide. Advanced Functional Materials, 2018, 28, 1704451.	14.9	27
10	Sub process challenges in ultra fine pitch stencil printing of typeâ€6 and typeâ€7 Pbâ€free solder pastes for flip chip assembly applications. Soldering and Surface Mount Technology, 2005, 17, 24-32.	1.5	26
11	Ultra-Fine Pitch Stencil Printing for a Low Cost and Low Temperature Flip-Chip Assembly Process. IEEE Transactions on Components and Packaging Technologies, 2007, 30, 129-136.	1.3	25
12	Integration of additive manufacturing and inkjet printed electronics: a potential route to parts with embedded multifunctionality. Manufacturing Review, 2016, 3, 12.	1.5	24
13	A rapid technique for the direct metallization of PDMS substrates for flexible and stretchable electronics applications. Microelectronic Engineering, 2019, 209, 35-40.	2.4	22
14	Electrohydrodynamic and Aerosol Jet Printing for the Copatterning of Polydimethylsiloxane and Graphene Platelet Inks. Advanced Materials Technologies, 2020, 5, 2000148.	5.8	19
15	Selective Electroless Copper Deposition by Using Photolithographic Polymer/Ag Nanocomposite. IEEE Transactions on Electron Devices, 2019, 66, 1843-1848.	3.0	17
16	Direct metallisation of polyetherimide substrates by activation with different metals. Surface and Coatings Technology, 2019, 360, 285-296.	4.8	15
17	Electrodeposition of copper into high aspect ratio PCB micro-via using megasonic agitation. Microsystem Technologies, 2013, 19, 783-790.	2.0	14
18	Selective Metallization of 3D Printable Thermoplastic Polyurethanes. IEEE Access, 2019, 7, 104947-104955.	4.2	14

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19	Additively manufactured heterogeneous substrates for threeâ€dimensional control of local permittivity. Electronics Letters, 2014, 50, 745-746.	1.0	13
20	Microstructure formation in a thick polymer by electrostatic-induced lithography. Journal of Micromechanics and Microengineering, 2013, 23, 035018.	2.6	12
21	Computational modelling for reliable flip-chip packaging at sub-100Î¼m pitch using isotropic conductive adhesives. Microelectronics Reliability, 2007, 47, 132-141.	1.7	10
22	Optimization and characterization of Drop-on-Demand inkjet printing process for platinum organometallic inks. , 2011, , .		10
23	Lamination based embossing technique for LTCC. Microsystem Technologies, 2013, 19, 801-807.	2.0	9
24	Light based synthesis of metallic nanoparticles on surface-modified 3D printed substrates for high performance electronic systems. Additive Manufacturing, 2020, 34, 101367.	3.0	9
25	Tattoo Antenna Temporary Transfers Operating On-Skin (TATTOOS). Lecture Notes in Computer Science, 2015, , 685-695.	1.3	8
26	Spinach-based photo-catalyst for selective plating on polyimide-based substrates for micro-patterning circuitry. Chemical Engineering Research and Design, 2020, 153, 839-848.	5.6	7
27	Digitally Driven Aerosol Jet Printing to Enable Customisable Neuronal Guidance. Frontiers in Cell and Developmental Biology, 2021, 9, 722294.	3.7	7
28	On the Use of Silver Nanoparticles for Direct Micropatterning on Polyimide Substrates. IEEE Nanotechnology Magazine, 2012, 11, 139-147.	2.0	6
29	Aerosol Jet Printing for the Manufacture of Soft Robotic Devices. , 2019, , .		6
30	Progress towards the design and numerical analysis of a 3D microchannel biochip separator. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1771-1792.	2.1	5
31	Enabling Rapid Production and Mass Customisation of Electronics Using Digitally Driven Hybrid Additive Manufacturing Techniques. , 2016, , .		5
32	PEI/Ag as an Optical Gas Nano-Sensor for Intelligent Food Packaging. , 2018, , .		5
33	Hybrid Additive Manufacture of Conformal Antennas. , 2018, , .		4
34	Hybrid additive manufacturing of precision engineered ceramic components. Rapid Prototyping Journal, 2019, 25, 1061-1068.	3.2	4
35	Design, manufacturing and packaging of high frequency micro ultrasonic transducers for medical applications. , 2011, , .		3
36	Progress towards filling through silicon vias with conductive ink. , 2012, , .		3

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37	Fabrication of a low temperature co-fired ceramic package using powder blasting technology. Microsystem Technologies, 2013, 19, 791-799.	2.0	3
38	Statistical analysis of stencil technology for wafer-level bumping. Soldering and Surface Mount Technology, 2014, 26, 71-78.	1.5	2
39	Micro electronic systems via multifunctional additive manufacturing. Rapid Prototyping Journal, 2018, 24, 752-763.	3.2	2
40	Enabling internal electronic circuitry within additively manufactured metal structures â€“ the effect and importance of inter-laminar topography. Rapid Prototyping Journal, 2018, 24, 204-213.	3.2	2
41	Digitally-Driven Hybrid Manufacture of Ceramic Thick-Film Substrates. , 2018, , .		2
42	Is in vivo sensing in a total hip replacement a possibility? A review on past systems and future challenges. Progress in Biomedical Engineering, 2021, 3, 042004.	4.9	2
43	Ultra-fine pitch flip-chip assembly using isotropic conductive adhesives. , 0, , .		1
44	Sub-100 micron pitch stencil printing for wafer scale bumping. , 2005, , .		1
45	Novel dual layer electroformed stencils for high resolution LTCC circuit manufacture. , 2011, , .		1
46	Characterization of Cu-Sn SLID interconnects for harsh environment applications. , 2014, , .		1
47	Design, manufacture and testing of microengineered stencils used for sub 100 micron wafer level bumping. , 2006, , .		0
48	Corrections to "Ultra-fine pitch stencil printing for a low cost and low temperature flip-chip assembly process". IEEE Transactions on Components and Packaging Technologies, 2007, 30, 359-359.	1.3	0
49	Electrochemical deposition of Galfenol. , 2012, , .		0
50	Stencil technology for wafer level bumping. , 2012, , .		0
51	Simultaneously printing the redistribution layer and filling of TSVs using a microengineered screen. , 2012, , .		0
52	Generation of superhydrophobic surfaces and wettability gradients on metallic substrates by nanosecond laser irradiation. , 2015, , .		0
53	Flexible Electronics: A Rapid Photopatterning Method for Selective Plating of 2D and 3D Microcircuitry on Polyetherimide (Adv. Funct. Mater. 6/2018). Advanced Functional Materials, 2018, 28, 1870041.	14.9	0
54	Extreme environment interconnects and packaging for power electronics. Journal of Engineering, 2019, 2019, 4226-4230.	1.1	0