Xin-Ping Qu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/480686/publications.pdf

Version: 2024-02-01

134	2,170	257450	276875
papers	citations	24 h-index	41 g-index

134	134	134	2032
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigation of RuZn alloy as barrier to Cu interconnect. Journal of Materials Science: Materials in Electronics, 2022, 33, 6318-6328.	2.2	3
2	Electroless Deposition of Pure Co on TaN Substrate for Interconnect Metallization. Journal of the Electrochemical Society, 2022, 169, 072507.	2.9	6
3	Removal of Nanoceria Abrasive Particles by Using Diluted SC1 and Non-Ionic Surfactant. ECS Journal of Solid State Science and Technology, 2021, 10, 034010.	1.8	5
4	Linewidth related resistivities and growth behavior of nickel silicide nanowires by solid state reaction between Ni and electron-beam lithography prepared Si nanowires. Thin Solid Films, 2021, 724, 138612.	1.8	2
5	Electrodeposition of Cu on CoTa Barrier in the Alkaline CuSO₄-Ethylenediamine Solution. Journal of the Electrochemical Society, 2021, 168, 062501.	2.9	2
6	Investigation on inhibition of ruthenium corrosion by glycine in alkaline sodium hypochlorite based solution. Applied Surface Science, 2020, 506, 144976.	6.1	20
7	Investigation of the anomalous hump phenomenon in amorphous InGaZnO thin-film transistors. Solid-State Electronics, 2020, 170, 107814.	1.4	7
8	The photoresponsivity of monolayer molybdenum disulfide grown by chemical vapor deposition with different seeding promoters. Applied Physics Express, 2020, 13, 071006.	2.4	1
9	Study of adhesion for Cu/Ru(Zn) on dielectrics by an improved four-point bending measurement. , 2020, , .		3
10	Cu CMP process development and characterization of Cu dishing with 1.8 Î¼m Cu pad and 3.6 Î¼m pitch in Cu/SiO₂ hybrid bonding. Japanese Journal of Applied Physics, 2019, 58, SHHC01.	1.5	8
11	Improved contact resistivity and enhanced mobility of metal-graphene FET by inserting ultra-thin MoOx layer at source/drain region. AIP Advances, 2019, 9, .	1.3	4
12	Effect of thickness scaling on the permeability and thermal stability of Ta(N) diffusion barrier. Applied Surface Science, 2019, 498, 143887.	6.1	12
13	Influence of seeding promoters on the properties of CVD grown monolayer molybdenum disulfide. Nano Research, 2019, 12, 823-827.	10.4	39
14	Role of Post-Deposition Annealing of Sputtered Ti on Fermi Level Depinning in Ti/TiOx/n-Ge. ECS Journal of Solid State Science and Technology, 2019, 8, P153-P158.	1.8	2
15	Characterization of 1, 2, 4-Triazole as Corrosion Inhibitor for Chemical Mechanical Polishing of Cobalt in H₂O₂Based Acid Slurry. ECS Journal of Solid State Science and Technology, 2019, 8, P3075-P3084.	1.8	35
16	Two-step degradation of a-InGaZnO thin film transistors under DC bias stress. Solid-State Electronics, 2019, 152, 4-10.	1.4	5
17	Inhibition effect of glycine on molybdenum corrosion during CMP in alkaline H2O2 based abrasive free slurry. Applied Surface Science, 2018, 427, 148-155.	6.1	36
18	Pronounced effects of argon plasma etching on photoluminescence and Schottky contact properties of Pt/ZnO nanorods. Optical Materials, 2018, 84, 404-408.	3.6	2

#	Article	IF	Citations
19	A non-destructive, fast evaluation of PVD diffusion barriers deposited on porous low-k dielectrics. Microelectronic Engineering, 2018, 198, 22-28.	2.4	5
20	Chemical Mechanical Polishing of Molybdenum in Potassium Iodate-Based Acidic Slurries. ECS Journal of Solid State Science and Technology, 2018, 7, P299-P304.	1.8	5
21	Study of CoTa alloy as barrier layer for Cu/low-kinterconnects. Journal Physics D: Applied Physics, 2017, 50, 405306.	2.8	16
22	Chemical Mechanical Polishing of Mo Using H₂O₂as Oxidizer in Colloidal Silica Based Slurries. ECS Journal of Solid State Science and Technology, 2017, 6, P470-P476.	1.8	16
23	Study of direct Cu electrodeposition on ultra-thin Mo for copper interconnect. Microelectronic Engineering, 2016, 164, 7-13.	2.4	12
24	Investigation of oxygen and argon plasma treatment on Mg-doped InZnO thin film transistors. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	6
25	Effect of Co_xMo_yas Single Barrier Layer on Properties of Directly Electroplated Copper Films. Journal of the Electrochemical Society, 2016, 163, D794-D800.	2.9	7
26	Effects of colloidal silica on the CMP of Molybdenum in the alkaline slurry. , 2014, , .		3
27	Study of a single layer ultrathin CoMo film as a direct plateable adhesion/barrier layer for next generation interconnect. , 2014, , .		9
28	Direct Copper Plating on Ultra-Thin Sputtered Cobalt Film in an Alkaline Bath. Journal of the Electrochemical Society, 2013, 160, D3075-D3080.	2.9	33
29	Silver surface-enhanced raman scattering substrates prepared by a nanofabrication process using Electron Beam Lithography and magnetron sputtering. , 2013, , .		1
30	Study of Schottky barrier height modulation for NiSi/Si contact with an antimony interlayer. Microelectronic Engineering, 2013, 106, 121-124.	2.4	5
31	Atomic layer deposition of platinum thin films on anodic aluminium oxide templates as surface-enhanced Raman scattering substrates. Vacuum, 2013, 89, 257-260.	3.5	15
32	Investigation of CH4, NH3, H2 and He plasma treatment on porous low-k films and its effects on resisting moisture absorption and ions penetration. Microelectronic Engineering, 2013, 106, 85-90.	2.4	2
33	The Effect of H2O2 and 2-MT on the Chemical Mechanical Polishing of Cobalt Adhesion Layer in Acid Slurry. Electrochemical and Solid-State Letters, 2012, 15, H97.	2.2	57
34	The Effect of Glycine and Benzotriazole on Corrosion and Polishing Properties of Cobalt in Acid Slurry. Journal of the Electrochemical Society, 2012, 159, C383-C387.	2.9	62
35	Improved Removal Selectivity of Ruthenium and Copper by Glycine in Potassium Periodate (KIO_4)-Based Slurry. Journal of the Electrochemical Society, 2012, 159, C525-C529.	2.9	22
36	Effects of oxygen plasma etching and post-annealing on Pt Schottky contact on Mg-doped InZnO. , 2012, , .		1

#	Article	IF	Citations
37	TaNâˆ•Ta as an Effective Diffusion Barrier for Direct Contact of Copper and NiSi. Electrochemical and Solid-State Letters, 2012, 15, H9.	2.2	2
38	The influence of ZnO seed layers on n-ZnO nanostructure/p-GaN LEDs. Applied Physics A: Materials Science and Processing, 2012, 109, 489-495.	2.3	8
39	Reflow discoloration formation on pure tin (Sn) surface finish. Microelectronics Reliability, 2012, 52, 1153-1156.	1.7	4
40	Density Functional Theory Study of Cu Adhesion on Rh, Ir, Pd, Ta, Mo, Ru, Co, and Os Surfaces. Japanese Journal of Applied Physics, 2011, 50, 105701.	1.5	5
41	Pattern transfer of nano-scale ferroelectric PZT gratings by a reversal nanoimprint lithography. Microelectronic Engineering, 2011, 88, 2037-2040.	2.4	5
42	A novel surface plasmon biosensor with imprinted waveguide metal gratings for protein detection. Microelectronic Engineering, 2011, 88, 2647-2649.	2.4	4
43	Annealing effect on the metal gate effective work function modulation for the Al/TiN/SiO2/p-Si structure. Microelectronic Engineering, 2011, 88, 573-577.	2.4	23
44	Sputtered Ruâ€“Ti, Ruâ€“N and Ruâ€“Tiâ€“N films as Cu diffusion barrier. Microelectronic Engineering, 2011, 88, 635-640.	2.4	23
45	Cu contact on NiSi/Si with thin Ru/TaN barrier. Microelectronic Engineering, 2011, 88, 545-547.	2.4	2
46	ALD-grown seed layers for electrochemical copper deposition integrated with different diffusion barrier systems. Microelectronic Engineering, 2011, 88, 684-689.	2.4	50
47	Nanoscale control of domain arrangements in Pb(Zr0.3,Ti0.7)O3 ferroelectric films. Microelectronic Engineering, 2011, 88, 2041-2044.	2.4	2
48	Magnetic and meniscus-effect control of catalytic rolled-up micromotors. Microelectronic Engineering, 2011, 88, 1792-1794.	2.4	11
49	Dielectric Fresnel zone plates on optical fibers for micro-focusing applications. Microelectronic Engineering, 2011, 88, 2650-2652.	2.4	6
50	Silicon nanowires by combined nanoimprint and angle deposition for gas sensing applications. Microelectronic Engineering, 2011, 88, 2100-2104.	2.4	25
51	Effective Schottky Barrier Height Modulation by an Ultrathin Passivation Layer of GeOxNy for Alâˆ•n-Ge(100) Contact. Electrochemical and Solid-State Letters, 2011, 14, H487.	2.2	9
52	The Inhibition of Enhanced Cu Oxidation on Rutheniumâˆ•Diffusion Barrier Layers for Cu Interconnects by Carbon Alloying into Ru. Journal of the Electrochemical Society, 2011, 158, H1228.	2.9	7
53	Annealing induced hysteresis suppression for TiN/HfO₂/GeON/p-Ge capacitor. Semiconductor Science and Technology, 2011, 26, 125003.	2.0	8
54	TiO2/HfO2 Bi-Layer Gate Stacks Grown by Atomic Layer Deposition for Germanium-Based Metal-Oxide-Semiconductor Devices Using GeOxNy Passivation Layer. Electrochemical and Solid-State Letters, 2011, 14, G27.	2.2	14

#	Article	IF	Citations
55	Effective Electrical Passivation of Ge(100) for HfO2 Gate Dielectric Layers Using O2 Plasma. Electrochemical and Solid-State Letters, 2011, 14, G20.	2.2	19
56	Density Functional Theory Study of Cu Adhesion on Rh, Ir, Pd, Ta, Mo, Ru, Co, and Os Surfaces. Japanese Journal of Applied Physics, 2011, 50, 105701.	1.5	4
57	A New Chemically Amplified Resist for High Resolution Patterning by E-Beam Lithography. Journal of Nanoscience and Nanotechnology, 2010, 10, 7130-7133.	0.9	3
58	The effects of deposition temperature and ambient onÂtheÂphysicalÂand electrical performance ofÂDC-sputteredÂn-ZnO/p-Si heterojunction. Applied Physics A: Materials Science and Processing, 2010, 98, 357-365.	2.3	41
59	Schottky barrier height lowering induced by CoSi2 nanostructure. Applied Physics A: Materials Science and Processing, 2010, 99, 93-98.	2.3	7
60	In situ and ex situ investigation on the annealing performance of the ZnO film grown by ion beam deposition. Journal of Materials Science: Materials in Electronics, 2010, 21, 88-95.	2.2	9
61	Nanoimprint lithography for optic fluidics with phase gratings for environmental monitoring application. Microelectronic Engineering, 2010, 87, 824-826.	2.4	3
62	A novel 3D nanolens for sub-wavelength focusing by self-aligned nanolithography. Microelectronic Engineering, 2010, 87, 1506-1508.	2.4	6
63	Effective polarization control of metallic planar chiral metamaterials with complementary rosette pattern fabricated by nanoimprint lithography. Microelectronic Engineering, 2010, 87, 985-988.	2.4	6
64	Surface plasmon enhanced transmission through gold planar crystals with various aperture arrangements. Microelectronic Engineering, 2010, 87, 1340-1343.	2.4	4
65	Influences of embossing technology on Pb(Zr0.3,Ti0.7)O3 ferroelectric thin film. Microelectronic Engineering, 2010, 87, 869-871.	2.4	10
66	Surface plasmon polariton coupling induced transmission of subwavelength metallic grating with waveguide layer. Microelectronic Engineering, 2010, 87, 1297-1299.	2.4	8
67	Patterned ZnO nanorods network transistor fabricated by low-temperature hydrothermal process. Microelectronic Engineering, 2010, 87, 1483-1486.	2.4	13
68	Fabrication and characterization of high extinction ratio transmission polarizers. Microelectronic Engineering, 2010, 87, 1005-1007.	2.4	1
69	22nm silicon nanowire gas sensor fabricated by trilayer nanoimprint and wet etching. Microelectronic Engineering, 2010, 87, 927-930.	2.4	21
70	Influence of nano-embossing on properties of poly(VDF-TrFE). Microelectronic Engineering, 2010, 87, 890-892.	2.4	6
71	The effect of sputtered W-based carbide diffusion barriers on the thermal stability and void formation in copper thin films. Microelectronic Engineering, 2010, 87, 2535-2539.	2.4	8
72	Cu adhesion on tantalum and ruthenium surface: Density functional theory study. Journal of Applied Physics, 2010, 107, 103534.	2.5	23

#	Article	IF	Citations
73	Ultrathin GeOxNy interlayer formed by in situâ€ˆNH3 plasma pretreatment for passivation of germanium metal-oxide-semiconductor devices. Applied Physics Letters, 2010, 97, .	3.3	25
74	Investigation of Co/TaN bilayer as Cu diffusion barrier. , 2010, , .		0
75	Implementing TiO2 as gate dielectric for Ge-channel complementary metal-oxide-semiconductor devices by using HfO2/GeO2 interlayer. Applied Physics Letters, 2010, 97, .	3.3	41
76	Study of the sputtered Mo/TaN and Mo-Ta thin film as diffusion barrier for copper metallization. , 2010, , .		1
77	Ru/TaSiN with different Ta/Si atomic ratio as barrier for Cu contact on NiSi substrate. , 2010, , .		0
78	Duplication of nanoimprint templates by a novel SU-8/SiO2/PMMA trilayer technique. Journal of Vacuum Science & Technology B, 2009, 27, 19-22.	1.3	7
79	X-ray photoelectron spectroscopy study of NiSi formation on shallow junctions. Applied Surface Science, 2009, 256, 698-701.	6.1	2
80	The effect of pre-annealing of sputtered ZnO seed layers onÂgrowth of ZnO nanorods through a hydrothermal method. Applied Physics A: Materials Science and Processing, 2009, 94, 775-780.	2.3	59
81	Fabrication of micro/nano fluidic channels by nanoimprint lithography and bonding using SU-8. Microelectronic Engineering, 2009, 86, 1379-1381.	2.4	21
82	Ru thin film grown on TaN by plasma enhanced atomic layer deposition. Thin Solid Films, 2009, 517, 4689-4693.	1.8	49
83	Surface plasmon enhanced transmission through planar gold quasicrystals fabricated by focused ion beam technique. Microelectronic Engineering, 2009, 86, 1131-1133.	2.4	12
84	Silicon nanowire sensor for gas detection fabricated by nanoimprint on SU8/SiO2/PMMA trilayer. Microelectronic Engineering, 2009, 86, 1238-1242.	2.4	27
85	Metallic and dielectric photonic crystals with chiral elements by combined nanoimprint and reversal lithography in SU-8. Microelectronic Engineering, 2009, 86, 619-621.	2.4	7
86	Pt interlayer effects on Ni germanosilicide formation and contact properties. Applied Surface Science, 2009, 256, 305-310.	6.1	8
87	The effect of postannealing on the electrical properties of well-aligned n-ZnO nanorods/p-Si heterojunction. Journal of Applied Physics, 2009, 105, 114504.	2.5	65
88	Fabrication of 150 nm Half-Pitch Grating Templates for Nanoimprint Lithography. Journal of Nanoscience and Nanotechnology, 2009, 9, 1437-1440.	0.9	4
89	Pre-doping effects on Ni fully silicided metal gate on SiO2 dielectric. Applied Surface Science, 2008, 255, 1744-1749.	6.1	4
90	Yttrium silicide formation and its contact properties on Si(100). Microelectronic Engineering, 2008, 85, 131-135.	2.4	9

#	Article	IF	Citations
91	Nanophotonic crystals with chiral elements by a hot embossing process in SU-8. Microelectronic Engineering, 2008, 85, 866-869.	2.4	8
92	Nanofabrication of SiC templates for direct hot embossing for metallic photonic structures and meta materials. Microelectronic Engineering, 2008, 85, 1147-1151.	2.4	5
93	Characterization of Ni/Ho and Ni/Er fully silicided metal gates on SiO2 gate dielectric. Microelectronic Engineering, 2008, 85, 2032-2036.	2.4	4
94	Cu contact on NiSi substrate with a Ta/TaN barrier stack. Microelectronic Engineering, 2008, 85, 2028-2031.	2.4	7
95	A nanoimprint lithography for fabricating SU-8 gratings for near-infrared to deep-UV application. Microelectronic Engineering, 2008, 85, 914-917.	2.4	28
96	Diffusion barrier properties of TaNx films prepared by plasma enhanced atomic layer deposition from PDMAT with N2 or NH3 plasma. Microelectronic Engineering, 2008, 85, 2059-2063.	2.4	18
97	Growth Kinetics and Crystallization Behavior of TiO[sub 2] Films Prepared by Plasma Enhanced Atomic Layer Deposition. Journal of the Electrochemical Society, 2008, 155, H688.	2.9	111
98	Oxidation suppression in ytterbium silicidation by Tiâˆ•TiN bicapping layer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 285-289.	2.1	9
99	Growth of pinhole-free ytterbium silicide film by solid-state reaction on Si(001) with a thin amorphous Si interlayer. Journal of Applied Physics, 2007, 102, 033508.	2.5	12
100	Growth of high-density Ru- and RuO2-composite nanodots on atomic-layer-deposited Al2O3 film. Applied Surface Science, 2007, 253, 4045-4050.	6.1	11
101	Improved barrier properties of ultrathin Ru film with TaN interlayer for copper metallization. Applied Physics Letters, 2006, 88, 151912.	3.3	95
102	Linear growth of Ni2Si thin film on n+/p junction at low temperature. Journal of Materials Research, 2006, 21, 3017-3021.	2.6	1
103	Superior thermal stability of Ta/TaN bi-layer structure for copper metallization. Applied Surface Science, 2006, 253, 1666-1672.	6.1	81
104	The properties of Ru on Ta-based barriers. Thin Solid Films, 2006, 504, 231-234.	1.8	44
105	Study of ultrathin vanadium nitride as diffusion barrier for copper interconnect. Microelectronic Engineering, 2006, 83, 236-240.	2.4	11
106	Arsenic redistribution induced by low-temperature Ni silicidation at 450Â°C on shallow junctions. Journal of Electronic Materials, 2006, 35, 937-940.	2.2	0
107	Comparison of Ru/Ta and Ru/TaN as Barrier Stack for Copper Metallization. Materials Research Society Symposia Proceedings, 2006, 914, 1.	0.1	1
108	Copper pulse plating on Ru/TaSiN barrier. , 2006, , .		0

#	Article	IF	Citations
109	Voltage dependence of effective barrier height reduction in inhomogeneous Schottky diodes. Solid-State Electronics, 2005, 49, 606-611.	1.4	32
110	Electrical characterization of NiSi/Si interfaces formed by a single and a two-step rapid thermal silicidation. Semiconductor Science and Technology, 2005, 20, 716-719.	2.0	6
111	Nickel silicidation on n and p-type junctions at 300Â°C. Applied Physics Letters, 2004, 85, 410-412.	3.3	25
112	The reaction characteristics of ultra-thin Ni films on undoped and doped Si (100). Journal of Electronic Materials, 2004, 33, 770-773.	2.2	0
113	Effects of preannealing on the diffusion barrier properties for ultrathin Wâ€“Siâ€“N thin film. Thin Solid Films, 2004, 462-463, 67-71.	1.8	15
114	Thermal stability, phase and interface uniformity of Ni-silicide formed by Niâ€“Si solid-state reaction. Thin Solid Films, 2004, 462-463, 146-150.	1.8	18
115	Schottky barrier characteristics of ternary silicide Co1â^'xNixSi2 on n-Si(100) contacts formed by solid phase reaction of multilayer. Solid-State Electronics, 2004, 48, 1205-1209.	1.4	39
116	Schottky contact properties of Ni/n-poly-Si0.87Ge0.13/n-Si(100) heterostructure. Materials Letters, 2004, 58, 2082-2086.	2.6	3
117	Ni/Si solid phase reaction studied by temperature-dependent current-voltage technique. Journal of Applied Physics, 2003, 93, 866-870.	2.5	35
118	Comment on â€œSchottky barrier rectifier with high current density using vanadium as barrier metalâ€• [Appl. Phys. Lett., 79, 860 (2001)]. Applied Physics Letters, 2003, 82, 1311-1312.	3.3	0
119	Boron and phosphorous diffusion in ion-beam-sputtering deposited SiGe films. Materials Letters, 2002, 57, 921-924.	2.6	4
120	Surface and interface morphology of CoSi2 films formed by multilayer solid-state reaction. Materials Characterization, 2002, 48, 229-235.	4.4	4
121	Silicide Formation for Ni and Pd Bilayers on Si(100) Substrates. Materials Research Society Symposia Proceedings, 2001, 670, 1.	0.1	2
122	Epitaxial growth of CoSi2 film by Co/a-Si/Ti/Si(100) multilayer solid state reaction. Journal of Applied Physics, 2001, 89, 2641-2648.	2.5	13
123	Electrical characteristics of CoSi2/n-Si(100) Schottky barrier contacts formed by solid state reaction. Solid-State Electronics, 2000, 44, 1807-1818.	1.4	63
124	Ballistic electron emission microscopy studies of the temperature dependence of Schottky barrier height distribution in CoSi2/n-Si(100) diodes formed by solid phase reaction. Solid-State Electronics, 2000, 44, 2217-2223.	1.4	10
125	Barrier height inhomogeneities of epitaxial CoSi2 Schottky contacts on n-Si (100) and (111). Solid-State Electronics, 2000, 44, 663-671.	1.4	225
126	A BEEM study of Schottky barrier height distributions of ultrathin CoSi2/n-Si(100) formed by solid phase epitaxy. Semiconductor Science and Technology, 2000, 15, 349-356.	2.0	17

#	Article	IF	Citations
127	Formation and Characterization of Spe Grown Ultra-Thin Cobalt Disilicide Film. Materials Research Society Symposia Proceedings, 1999, 564, 157.	0.1	1
128	A Beem Study of PtSi Schottky Contacts on Ion-Milled Si. Materials Research Society Symposia Proceedings, 1999, 564, 201.	0.1	1
129	Process and Mechanism of CoSi2/Si Solid Phase Epitaxy by Multilayer Reaction. Materials Research Society Symposia Proceedings, 1999, 580, 117.	0.1	0
130	Multilayer solid phase reaction and epitaxial growth of metal silicide on Si. , 0, , .		0
131	The effect of amorphous Si on the epitaxial growth of CoSi/sub 2/ by Co/Si/Ti/Si solid state epitaxy. , 0, , .		0
132	Si/CoSi/sub 2//Si[100] heteroepitaxial growth by molecular beam epitaxy and novel solid phase epitaxy. , 0, , .		0
133	An atomic force microscopy study of thin CoSi/sub 2/ films formed by solid state reaction. , 0, , .		1
134	Nucleation of CoSi/sub 2/ and MnSi/sub 1.7/ in the Co/Mn/Si ternary system. , 0, , .		0