

Adem Tataroglu

List of Publications by Year in descending order

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103
papers

3,335
citations

109137

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104
all docs

104
docs citations

104
times ranked

1503
citing authors

#	ARTICLE	IF	CITATIONS
1	The role of interface states and series resistance on the $I-V$ and $C-V$ characteristics in Al/SnO ₂ /p-Si Schottky diodes. Solid-State Electronics, 2003, 47, 1847-1854.	0.8	192
2	Characterization of current-voltage ($I-V$) and capacitance-voltage-frequency ($C-V-f$) features of Al/SiO ₂ /p-Si (MIS) Schottky diodes. Microelectronic Engineering, 2006, 83, 582-588.	1.1	114
3	Frequency and voltage effects on the dielectric properties and electrical conductivity of Al-Ti-W-Pd ₂ Si/n-Si structures. Microelectronic Engineering, 2008, 85, 247-252.	1.1	106
4	The analysis of the series resistance and interface states of MIS Schottky diodes at high temperatures using $I-V$ characteristics. Journal of Alloys and Compounds, 2009, 484, 405-409.	2.8	93
5	The effect of interface states, excess capacitance and series resistance in the Al/SiO ₂ /p-Si Schottky diodes. Applied Surface Science, 2005, 252, 1732-1738.	3.1	80
6	Density of interface states, excess capacitance and series resistance in the metal-insulator-semiconductor (MIS) solar cells. Solar Energy Materials and Solar Cells, 2005, 85, 345-358.	3.0	79
7	Analysis of electrical characteristics of Au/SiO ₂ /n-Si (MOS) capacitors using the high-low frequency capacitance and conductance methods. Microelectronic Engineering, 2008, 85, 2256-2260.	1.1	78
8	On the profile of frequency dependent series resistance and surface states in Au/Bi ₄ Ti ₃ O ₁₂ /SiO ₂ /n-Si(MFIS) structures. Microelectronic Engineering, 2008, 85, 81-88.	1.1	74
9	On the conduction mechanisms of Au/(Cu ₂ O-CuO-PVA)/n-Si (MPS) Schottky barrier diodes (SBDs) using current-voltage-temperature ($I-V-T$) characteristics. Journal of Materials Science: Materials in Electronics, 2018, 29, 159-170.	1.1	73
10	On the energy distribution of interface states and their relaxation time and capture cross section profiles in Al/SiO ₂ /p-Si (MIS) Schottky diodes. Microelectronic Engineering, 2008, 85, 1495-1501.	1.1	68
11	On the profile of frequency dependent series resistance and dielectric constant in MIS structure. Microelectronic Engineering, 2007, 84, 180-186.	1.1	67
12	The distribution of barrier heights in MIS type Schottky diodes from current-voltage-temperature ($I-V-T$) measurements. Journal of Alloys and Compounds, 2009, 479, 893-897.	2.8	67
13	Electrical and dielectric properties of MIS Schottky diodes at low temperatures. Microelectronic Engineering, 2006, 83, 2551-2557.	1.1	61
14	Analysis of interface states and series resistance of MIS Schottky diodes using the current-voltage ($I-V$) characteristics. Microelectronic Engineering, 2008, 85, 233-237.	1.1	61
15	Photodiode and photocapacitor properties of Au/CdTe/p-Si/Al device. Journal of Alloys and Compounds, 2015, 646, 1151-1156.	2.8	59
16	Analysis of surface states and series resistance in Au/n-Si Schottky diodes with insulator layer using current-voltage and admittance-voltage characteristics. Vacuum, 2009, 84, 363-368.	1.6	55
17	Dielectric properties and ac electrical conductivity studies of MIS type Schottky diodes at high temperatures. Microelectronic Engineering, 2008, 85, 1518-1523.	1.1	52
18	The $C-V-f$ and $G/f \omega - V - f$ characteristics of Al/SiO ₂ /p-Si (MIS) structures. Microelectronic Engineering, 2006, 83, 2021-2026.	1.1	49

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19	The Richardson constant and barrier inhomogeneity at Au/Si ₃ N ₄ /n-Si (MIS) Schottky diodes. <i>Physica Scripta</i> , 2013, 88, 015801.	1.2	47
20	Frequency and voltage dependence of dielectric properties, complex electric modulus, and electrical conductivity in Au/7% graphene doped PVA/n-Si (MPS) structures. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	47
21	Influence of Temperature and Frequency on Dielectric Permittivity and ac Conductivity of Au/SnO ₂ /n-Si (MOS) Structures. <i>Chinese Physics Letters</i> , 2012, 29, 077304.	1.3	46
22	Single crystal ruthenium(II) complex dye based photodiode. <i>Dyes and Pigments</i> , 2016, 132, 64-71.	2.0	46
23	Comparison of electrical properties of MS and MPS type diode in respect of (In ₂ O ₃ -PVP) interlayer. <i>Physica B: Condensed Matter</i> , 2020, 576, 411733.	1.3	46
24	A novel type heterojunction photodiodes formed junctions of Au/LiZnSnO and LiZnSnO/p-Si in series. <i>Journal of Alloys and Compounds</i> , 2015, 625, 18-25.	2.8	44
25	Au/SnO ₂ /n-Si (MOS) structures response to radiation and frequency. <i>Microelectronics Journal</i> , 2003, 34, 1043-1049.	1.1	43
26	The barrier height distribution in identically prepared Al/p-Si Schottky diodes with the native interfacial insulator layer (SiO ₂). <i>Physica B: Condensed Matter</i> , 2007, 399, 146-154.	1.3	41
27	Comparative study of the electrical properties of Au/n-Si (MS) and Au/Si ₃ N ₄ /n-Si (MIS) Schottky diodes. <i>Chinese Physics B</i> , 2013, 22, 068402.	0.7	41
28	Electrical and impedance properties of MPS structure based on (Cu ₂ O/Cu/PVA) interfacial layer. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 8234-8243.	1.1	41
29	On the temperature dependent dielectric properties, conductivity and resistivity of MIS structures at 1MHz. <i>Microelectronic Engineering</i> , 2012, 91, 154-158.	1.1	40
30	Analysis of the series resistance and interface states of Au/Si ₃ N ₄ /n-Si (metal-insulator-semiconductor) Schottky diodes using $I-V$ characteristics in a wide temperature range. <i>Physica Scripta</i> , 2012, 86, 035802.	1.2	39
31	Photoresponse and photocapacitor properties of Au/AZO/p-Si/Al diode with AZO film prepared by pulsed laser deposition (PLD) method. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	1.1	37
32	⁶⁰ Co γ irradiation effects on the current-voltage ($I-V$) characteristics of Al/SiO ₂ /p-Si (MIS) Schottky diodes. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 568, 863-868.	0.7	36
33	Electrical characteristics of ⁶⁰ Co γ -ray irradiated MIS Schottky diodes. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006, 252, 257-262.	0.6	36
34	Analysis of interface states in Au/ZnO/p-InP (MOS) structure. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 12553-12560.	1.1	36
35	Dielectric, modulus and conductivity studies of Au/PVP/n-Si (MPS) structure in the wide range of frequency and voltage at room temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 6853-6859.	1.1	36
36	Study on the frequency dependence of electrical and dielectric characteristics of Au/SnO ₂ /n-Si (MIS) structures. <i>Microelectronic Engineering</i> , 2008, 85, 1866-1871.	1.1	35

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37	Characterization of interface states at Au/SnO ₂ /n-Si (MOS) structures. <i>Vacuum</i> , 2008, 82, 1203-1207.	1.6	35
38	A new shape memory alloy film/p-Si solar light four quadrant detector for solar tracking applications. <i>Journal of Alloys and Compounds</i> , 2016, 688, 762-768.	2.8	35
39	Ruthenium(II) Complex Based Photodiode for Organic Electronic Applications. <i>Journal of Electronic Materials</i> , 2018, 47, 828-833.	1.0	35
40	A comparative study on the electrical and dielectric properties of Al/Cd-doped ZnO/p-Si structures. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 12122-12129.	1.1	35
41	Frequency-Dependent Dielectric Parameters of Au/TiO ₂ /n-Si (MIS) Structure. <i>Silicon</i> , 2018, 10, 2071-2077.	1.8	33
42	C-V-f and G/f ₀ -V-f characteristics of Au/(In ₂ O ₃ -PVP)/n-Si (MPS) structure. <i>Physica B: Condensed Matter</i> , 2020, 582, 411996.	1.3	33
43	Ferroelectric Bi _{3.25} La _{0.75} Ti ₃ O ₁₂ photodiode for solar cell applications. <i>Solar Energy Materials and Solar Cells</i> , 2015, 133, 69-75.	3.0	31
44	Graphene-cobalt phthalocyanine based on optoelectronic device for solar panel tracking systems. <i>Synthetic Metals</i> , 2015, 206, 15-23.	2.1	30
45	Determination of interface states and their time constant for Au/SnO ₂ /n-Si (MOS) capacitors using admittance measurements. <i>Chinese Physics B</i> , 2013, 22, 047303.	0.7	29
46	The density of interface states and their relaxation times in Au/Bi ₄ Ti ₃ O ₁₂ /Si ₂ /n-Si (MFIS) structures. <i>Surface and Interface Analysis</i> , 2011, 43, 1561-1565.	0.8	27
47	Forward and reverse bias current-voltage (I-V) characteristics in the metal-ferroelectric-semiconductor (Au/SrTiO ₃ /n-Si) structures at room temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 16740-16746.	1.1	27
48	Photoresponse characteristics of Au/(CoFe ₂ O ₄ -PVP)/n-Si/Au (MPS) diode. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 15732-15739.	1.1	27
49	Analysis of interface states of FeO-Al ₂ O ₃ spinel composite film/p-Si diode by conductance technique. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	1.1	26
50	Boron doped graphene based linear dynamic range photodiode. <i>Physica B: Condensed Matter</i> , 2018, 545, 86-93.	1.3	25
51	Frequency dependence of the dielectric properties of Au/(NG:PVP)/n-Si structures. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 7657-7670.	1.1	25
52	Electronic and optoelectronic properties of Al/coumarin doped Pr ₂ Se ₃ -Ti ₂ Se/p-Si devices. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 12561-12572.	1.1	24
53	The effect of ⁶⁰ Co (γ-ray) irradiation on the electrical characteristics of Au/SnO ₂ /n-Si (MIS) structures. <i>Radiation Physics and Chemistry</i> , 2008, 77, 74-78.	1.4	23
54	Compare Study on Electrical Properties of MS Diodes with and Without CoFe ₂ O ₄ -PVP Interlayer. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2021, 31, 1668-1675.	1.9	23

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55	Electrical and photoresponse properties of CoSO ₄ -PVP interlayer based MPS diodes. Journal of Materials Science: Materials in Electronics, 2020, 31, 11665-11672.	1.1	22
56	The temperature profile and bias dependent series resistance of Au/Bi ₄ Ti ₃ O ₁₂ /SiO ₂ /n-Si (MFIS) structures. Vacuum, 2008, 82, 1246-1250.	1.6	21
57	Complex dielectric permittivity, electric modulus and electrical conductivity analysis of Au/Si ₃ N ₄ /p-GaAs (MOS) capacitor. Journal of Materials Science: Materials in Electronics, 2021, 32, 11418-11425.	1.1	21
58	A photodiode based on PbS nanocrystallites for FYTRONIX solar panel automatic tracking controller. Physica B: Condensed Matter, 2017, 527, 44-51.	1.3	19
59	Double-exponential current-voltage (I-V) and negative capacitance (NC) behavior of Al/(CdSe-PVA)/p-Si/Al (MPS) structure. Journal of Materials Science: Materials in Electronics, 2019, 30, 9572-9581.	1.1	19
60	Electrical characterization of Au/n-Si (MS) diode with and without graphene-polyvinylpyrrolidone (Gr-PVP) interface layer. Journal of Materials Science: Materials in Electronics, 2021, 32, 3451-3459.	1.1	19
61	Analysis of admittance measurements of Al/Gr-PVA/p-Si (MPS) structure. Journal of Physics and Chemistry of Solids, 2022, 169, 110861.	1.9	19
62	Temperature-dependent dielectric properties of Au/Si ₃ N ₄ /n-Si (metal-insulator-semiconductor) structures. Chinese Physics B, 2013, 22, 117310.	0.7	18
63	Photoconducting properties of Cd _{0.4} Zn _{0.6} O/p-Si photodiode by sol gel method. Journal of Electroceramics, 2014, 32, 369-375.	0.8	18
64	A functional material based photodiode for solar tracking systems. Physica B: Condensed Matter, 2017, 520, 76-81.	1.3	18
65	A shape memory alloy based photodiode for optoelectronic applications. Journal of Alloys and Compounds, 2018, 743, 227-233.	2.8	18
66	Current-voltage analyses of Graphene-based structure onto Al ₂ O ₃ /p-Si using various methods. Vacuum, 2020, 181, 109654.	1.6	18
67	Electrical properties of Graphene/Silicon structure with Al ₂ O ₃ interlayer. Journal of Materials Science: Materials in Electronics, 2020, 31, 9719-9725.	1.1	18
68	A systematic influence of Cu doping on structural and opto-electrical properties of fabricated Yb ₂ O ₃ thin films for Al/Cu-Yb ₂ O ₃ /p-Si Schottky diode applications. Inorganic Chemistry Communication, 2021, 129, 108646.	1.8	18
69	Optical, Electrical and Photoresponse Properties of Si-based Diodes with NiO-doped TiO ₂ Film Prepared by Sol-gel Method. Silicon, 2018, 10, 913-920.	1.8	17
70	The role of ⁶⁰ Co γ -ray irradiation on the interface states and series resistance in MIS structures. Radiation Physics and Chemistry, 2010, 79, 457-461.	1.4	16
71	Thermal sensors based on delafossite film/p-silicon diode for low-temperature measurements. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	16
72	Frequency and electric field controllable photodevice: FYTRONIX device. Physica B: Condensed Matter, 2017, 519, 53-58.	1.3	16

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73	Structural, Electrical and Photoresponse Properties of Si-based Diode with Organic Interfacial Layer Containing Novel Cyclotriphosphazene Compound. <i>Silicon</i> , 2018, 10, 683-691.	1.8	16
74	Analysis of barrier inhomogeneities in AuGe/n-Ge Schottky diode. <i>Indian Journal of Physics</i> , 2018, 92, 1397-1402.	0.9	16
75	Analysis of interface states and series resistance at MIS structure irradiated under ^{60}Co γ -rays. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 580, 1588-1593.	0.7	15
76	The effects of frequency and γ -irradiation on the dielectric properties of MIS type Schottky diodes. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 254, 113-117.	0.6	15
77	The effect of thickness on the optical, structural and electrical properties of ZnO thin film deposited on n-type Si. <i>Journal of Molecular Structure</i> , 2018, 1165, 376-380.	1.8	15
78	Electrical characteristics analyses of zinc-oxide based MIS structure grown by atomic layer deposition. <i>Materials Research Express</i> , 2019, 6, 026309.	0.8	15
79	CuAlMnV shape memory alloy thin film based photosensitive diode. <i>Materials Science in Semiconductor Processing</i> , 2020, 107, 104858.	1.9	15
80	Electrical, kinetic and photoelectrical properties of CuAlMnMg shape memory alloy/n-Si Schottky diode. <i>Journal of Alloys and Compounds</i> , 2021, 888, 161600.	2.8	15
81	Dielectric properties in Au/SnO ₂ /n-Si (MOS) structures irradiated under ^{60}Co - γ rays. <i>Microelectronics Journal</i> , 2004, 35, 731-738.	1.1	14
82	Effects of gamma irradiation on electrical parameters of metal-insulator-semiconductor structure with silicon nitride interfacial insulator layer. <i>Radiation Effects and Defects in Solids</i> , 2014, 169, 791-799.	0.4	14
83	Cu-Al-Mn shape memory alloy based Schottky diode formed on Si. <i>Physica B: Condensed Matter</i> , 2019, 560, 261-266.	1.3	14
84	Electrical characterization of silicon nitride interlayer-based MIS diode. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 9888-9893.	1.1	14
85	Dielectric characteristics of gamma irradiated Au/SnO ₂ /n-Si/Au (MOS) capacitor. <i>Materials Science in Semiconductor Processing</i> , 2014, 28, 89-93.	1.9	12
86	Composite metal oxide semiconductor based photodiodes for solar panel tracking applications. <i>Journal of Alloys and Compounds</i> , 2015, 650, 692-699.	2.8	12
87	Gamma-ray irradiation effects on the interface states of MIS structures. <i>Sensors and Actuators A: Physical</i> , 2009, 151, 168-172.	2.0	11
88	Electrical and photoconducting properties of nanorod in based spinel compound/p-Si photodiode by sol-gel spin coating technique. <i>Journal of Sol-Gel Science and Technology</i> , 2014, 71, 421-427.	1.1	11
89	Impedance spectroscopy of Au/TiO ₂ /n-Si metal-insulator-semiconductor (MIS) capacitor. <i>Physica B: Condensed Matter</i> , 2020, 580, 411945.	1.3	11
90	The photo-electrical performance of the novel CuAlMnFe shape memory alloy film in the diode application. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 264, 114931.	1.7	10

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91	The interface states analysis of the MIS structure as a function of frequency. Microelectronic Engineering, 2008, 85, 542-547.	1.1	9
92	Irradiation effect on dielectric properties and electrical conductivity of Au/SiO ₂ /n-Si (MOS) structures. Nuclear Instruments & Methods in Physics Research B, 2007, 264, 73-78.	0.6	6
93	Metallo-Phthalocyanines Based Photocapacitors. Silicon, 2019, 11, 1275-1286.	1.8	6
94	Frequency dependent dielectric properties of atomic layer deposition grown zinc-oxide based MIS structure. Physica B: Condensed Matter, 2019, 568, 31-35.	1.3	6
95	Effects of temperature and frequency on capacitance and conductance characteristics of zinc-oxide based MIS-Structure. Physica B: Condensed Matter, 2020, 576, 411721.	1.3	6
96	Analysis of Electrical Characteristics of Metal-Oxide-Semiconductor Capacitor by Impedance Spectroscopy. Journal of Nanoelectronics and Optoelectronics, 2014, 9, 515-519.	0.1	6
97	Effects of beta-ray irradiation on the C _i and G _i characteristics of Au/SiO ₂ /n-Si (MOS) structures. Nuclear Instruments & Methods in Physics Research B, 2007, 254, 273-277.	0.6	5
98	Electrical Properties of Dilute Nitride GaAsPN/GaPN MQW p-n Diode. Journal of Electronic Materials, 2017, 46, 4590-4595.	1.0	5
99	Electrical Properties of MOS Capacitor with TiO ₂ /SiO ₂ Dielectric Layer. Silicon, 2020, 12, 2879-2883.	1.8	5
100	Investigation of structural, kinetics and electrical properties of CuAlMnZn shape memory alloy p-type silicon Schottky diode. Sensors and Actuators A: Physical, 2021, 331, 112908.	2.0	5
101	Effects of Temperature on Dielectric Parameters of Metal-Oxide-Semiconductor Capacitor with Thermal Oxide Layer. Journal of Nanoelectronics and Optoelectronics, 2015, 10, 675-679.	0.1	5
102	Ionizing radiation effects on Au/TiO ₂ /n-Si metal-insulator-semiconductor (MIS) structure. Journal of Materials Science: Materials in Electronics, 2020, 31, 19846-19851.	1.1	4
103	Double-exponential current-voltage (I-V) behavior of bilayer graphene-based Schottky diode. Physica Scripta, 2021, 96, 125836.	1.2	2