

# Nezih Pala

## List of Publications by Year in descending order

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99  
papers

2,929  
citations

218677

26  
h-index

197818

49  
g-index

104  
all docs

104  
docs citations

104  
times ranked

4043  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sonochemistry: Science and Engineering. Ultrasonics Sonochemistry, 2016, 29, 104-128.	8.2	266
2	Prospects and Challenges of Volatile Organic Compound Sensors in Human Healthcare. ACS Sensors, 2018, 3, 1246-1263.	7.8	179
3	Rapid Detection of Infectious Envelope Proteins by Magnetoplasmonic Toroidal Metasensors. ACS Sensors, 2017, 2, 1359-1368.	7.8	158
4	LIGHTNETs: Smart LIGHTing and Mobile Optical Wireless NETworks " A Survey. IEEE Communications Surveys and Tutorials, 2013, 15, 1620-1641.	39.4	136
5	Electrochemical cortisol immunosensors based on sonochemically synthesized zinc oxide 1D nanorods and 2D nanoflakes. Biosensors and Bioelectronics, 2015, 63, 124-130.	10.1	136
6	Exchanging Ohmic Losses in Metamaterial Absorbers with Useful Optical Absorption for Photovoltaics. Scientific Reports, 2014, 4, 4901.	3.3	133
7	IoT-based occupancy monitoring techniques for energy-efficient smart buildings. , 2015, , .		132
8	Extreme sensitive metasensor for targeted biomarkers identification using colloidal nanoparticles-integrated plasmonic unit cells. Biomedical Optics Express, 2018, 9, 373.	2.9	116
9	Lactate biosensing: The emerging point-of-care and personal health monitoring. Biosensors and Bioelectronics, 2018, 117, 818-829.	10.1	107
10	Highly Sensitive Wide Bandwidth Photodetector Based on Internal Photoemission in CVD Grown p-Type MoS <sub>2</sub> /Graphene Schottky Junction. ACS Applied Materials & Interfaces, 2015, 7, 15206-15213.	8.0	98
11	Hybrid 3-D Localization for Visible Light Communication Systems. Journal of Lightwave Technology, 2015, 33, 4589-4599.	4.6	81
12	Tunable plasmonic toroidal terahertz metamodulator. Physical Review B, 2018, 97, .	3.2	81
13	Transition from capacitive coupling to direct charge transfer in asymmetric terahertz plasmonic assemblies. Optics Letters, 2016, 41, 5333.	3.3	77
14	AOA-based localization and tracking in multi-element VLC systems. , 2015, , .		58
15	Optical Switching Using Transition from Dipolar to Charge Transfer Plasmon Modes in Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> Bridged Metallodielectric Dimers. Scientific Reports, 2017, 7, 42807.	3.3	57
16	VO <sub>2</sub> -Based Reconfigurable Antenna Platform with Addressable Microheater Matrix. Advanced Electronic Materials, 2017, 3, 1700170.	5.1	54
17	Magneto-plasmonic nanostars for image-guided and NIR-triggered drug delivery. Scientific Reports, 2020, 10, 10115.	3.3	49
18	Review" A Review of Electrochemical Aptasensors for Label-Free Cancer Diagnosis. Journal of the Electrochemical Society, 2020, 167, 067511.	2.9	48

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19	Hot electron generation by aluminum oligomers in plasmonic ultraviolet photodetectors. <i>Optics Express</i> , 2016, 24, 13665.	3.4	45
20	Multi-Element VLC Networks: LED Assignment, Power Control, and Optimum Combining. <i>IEEE Journal on Selected Areas in Communications</i> , 2018, 36, 121-135.	14.0	43
21	Active Control over the Interplay between the Dark and Hidden Sides of Plasmonics Using Metallodielectric Au <sup>2</sup> Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> Unit Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 19966-19974.	3.1	42
22	Rhodium Plasmonics for Deep-Ultraviolet Bio-Chemical Sensing. <i>Plasmonics</i> , 2016, 11, 839-849.	3.4	37
23	Enhancement of photothermal heat generation by metallodielectric nanoplasmonic clusters. <i>Optics Express</i> , 2015, 23, A682.	3.4	34
24	Highly sensitive label-free electrochemical aptasensors based on photoresist derived carbon for cancer biomarker detection. <i>Biosensors and Bioelectronics</i> , 2020, 170, 112598.	10.1	32
25	Sonochemical Synthesis of a Zinc Oxide Core-Shell Nanorod Radial p-n Homojunction Ultraviolet Photodetector. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 19791-19799.	8.0	29
26	Large-Modulation-Depth Polarization-Sensitive Plasmonic Toroidal Terahertz Metamaterial. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 1860-1863.	2.5	28
27	Hybridized plasmon resonant modes in molecular metallodielectric quad-triangles nanoantenna. <i>Optics Communications</i> , 2015, 355, 103-108.	2.1	27
28	Flexible and Linker-Free Enzymatic Sensors Based on Zinc Oxide Nanoflakes for Noninvasive L-Lactate Sensing in Sweat. <i>IEEE Sensors Journal</i> , 2020, 20, 5102-5109.	4.7	27
29	Hybridized plasmons in graphene nanorings for extreme nonlinear optics. <i>Optical Materials</i> , 2017, 73, 729-735.	3.6	26
30	Tunable Room Temperature THz Sources Based on Nonlinear Mixing in a Hybrid Optical and THz Micro-Ring Resonator. <i>Scientific Reports</i> , 2015, 5, 9422.	3.3	22
31	Controlled Synthesis of Single-Crystalline ZnO Nanoflakes on Arbitrary Substrates at Ambient Conditions. <i>Particle and Particle Systems Characterization</i> , 2014, 31, 190-194.	2.3	20
32	Single- and Multimode Beam Propagation Through an Optothermally Controllable Fano Clusters-Mediated Waveguide. <i>Journal of Lightwave Technology</i> , 2017, 35, 4961-4966.	4.6	20
33	A Software-Defined Multi-Element VLC Architecture. , 2018, 56, 196-203.		20
34	A Review of THz Technologies for Rapid Sensing and Detection of Viruses including SARS-CoV-2. <i>Biosensors</i> , 2021, 11, 349.	4.7	20
35	Multiple Step Growth of Single Crystalline Rutile Nanorods with the Assistance of Self-Assembled Monolayer for Dye Sensitized Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 9809-9815.	8.0	19
36	Slow Beam Steering and NOMA for Indoor Multi-User Visible Light Communications. <i>IEEE Transactions on Mobile Computing</i> , 2021, 20, 1627-1641.	5.8	19

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37	Fano resonances in plasmonic aluminum nanoparticle clusters for precise gas detection: Ultra-sensitivity to the minor environmental refractive index perturbations. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2015, 13, 97-105.	2.0	18
38	Multi-Element Transmitter Design and Performance Evaluation for Visible Light Communication. , 2015, , .		17
39	Fano Resonances in Complex Plasmonic Necklaces Composed of Gold Nanodisks Clusters for Enhanced LSPR Sensing. <i>IEEE Sensors Journal</i> , 2015, 15, 1588-1594.	4.7	17
40	Tunable THz wave absorption by graphene-assisted plasmonic metasurfaces based on metallic split ring resonators. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	17
41	Functional Quadrumer Clusters for Switching Between Fano and Charge Transfer Plasmons. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 2226-2229.	2.5	16
42	Accuracy of AOA-Based and RSS-Based 3D Localization for Visible Light Communications. , 2015, , .		15
43	Perspectives on C-MEMS and C-NEMS biotech applications. <i>Biosensors and Bioelectronics</i> , 2021, 180, 113119.	10.1	15
44	Magnetic fano resonances in all-dielectric nanocomplexes under cylindrical vector beams excitation. <i>Optics and Laser Technology</i> , 2017, 90, 65-70.	4.6	14
45	Optothermally controllable multiple high-order harmonics generation by Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> -mediated Fano clusters. <i>Optical Materials</i> , 2018, 84, 301-306.	3.6	14
46	Graphene Optical Switch Based on Charge Transfer Plasmons. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1700285.	2.4	13
47	Selective Detection of Alcohol Through Ethyl-Glucuronide Immunosensor Based on 2D Zinc Oxide Nanostructures. <i>IEEE Sensors Journal</i> , 2019, 19, 3984-3992.	4.7	13
48	Insights on cholinium- and piperazinium-based ionic liquids under external electric fields: A molecular dynamics study. <i>Journal of Chemical Physics</i> , 2013, 139, 224502.	3.0	12
49	Localization, Hybridization, and Coupling of Plasmon Resonances in an Aluminum Nanomatrix. <i>Plasmonics</i> , 2015, 10, 809-817.	3.4	12
50	Design Rules for a Wearable Micro-Fabricated Piezo-Resistive Pressure Sensor. <i>Micromachines</i> , 2022, 13, 838.	2.9	12
51	Tunable, Room Temperature CMOS-Compatible THz Emitters Based on Nonlinear Mixing in Microdisk Resonators. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 230-242.	2.2	11
52	Highly Sensitive Lactic Acid Biosensors Based on Photoresist Derived Carbon. <i>IEEE Sensors Journal</i> , 2020, 20, 8965-8972.	4.7	11
53	VO <sub>2</sub> -based ultra-reconfigurable intelligent reflective surface for 5G applications. <i>Scientific Reports</i> , 2022, 12, 4497.	3.3	11
54	Deep Sub-Wavelength Multimode Tunable In-Plane Plasmonic Lenses Operating at Terahertz Frequencies. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013, 3, 550-557.	3.1	10

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55	Fano-Like Resonances in Split Concentric Nanoshell Dimers in Designing Negative-Index Metamaterials for Biological-Chemical Sensing and Spectroscopic Purposes. <i>Applied Spectroscopy</i> , 2015, 69, 563-573.	2.2	10
56	Intensifying magnetic dark modes in the antisymmetric plasmonic quadrumer composed of Al/Al <sub>2</sub> O <sub>3</sub> nanodisks with the placement of silicon nanospheres. <i>Optics Communications</i> , 2015, 338, 218-225.	2.1	10
57	Excitation of Terahertz Charge Transfer Plasmons in Metallic Fractal Structures. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2017, 38, 992-1003.	2.2	10
58	Plasmonic properties of asymmetric dual grating gate plasmonic crystals. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 671-675.	1.5	9
59	HfO <sub>2</sub> -III-Nitride RF Switch With Capacitively Coupled Contacts. <i>IEEE Electron Device Letters</i> , 2009, 30, 478-480.	3.9	8
60	Plasmon Resonance Hybridization in Self-Assembled Copper Nanoparticle Clusters: Efficient and Precise Localization of Surface Plasmon Resonance (LSPR) Sensing Based on Fano Resonances. <i>Applied Spectroscopy</i> , 2015, 69, 277-286.	2.2	8
61	Multiple coil-type Fano resonances in all-dielectric antisymmetric quadrumer. <i>Optical and Quantum Electronics</i> , 2015, 47, 2055-2064.	3.3	8
62	Diversity combining and piezoelectric beam steering for multi-element VLC networks. , 2016, , .		8
63	A molecular plasmonic Fano-router: Using hotspots in a single-stone ring-like structure. <i>Optics Communications</i> , 2016, 367, 123-129.	2.1	8
64	AI-Powered Terahertz VLSI Testing Technology for Ensuring Hardware Security and Reliability. <i>IEEE Access</i> , 2021, 9, 64499-64509.	4.2	8
65	Plasmon response of a metal-semiconductor multilayer 4π-spiral as a negative-index metamaterial. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	1.9	7
66	Fano Resonances in Nanoshell Clusters Deposited on a Multilayer Substrate of meta-SiC/SiO <sub>2</sub> /Si to Design High-Quality Plasmonic Sensors. <i>Journal of Lightwave Technology</i> , 2015, 33, 2817-2823.	4.6	7
67	Novel application of electrochemical bipolar exfoliated graphene for highly sensitive disposable label-free cancer biomarker aptasensors. <i>Nanoscale Advances</i> , 2021, 3, 5948-5958.	4.6	7
68	Resonance coupling in plasmonic nanomatryoshka homo- and heterodimers. <i>AIP Advances</i> , 2016, 6, .	1.3	6
69	Graphene-Based Periodic Gate Field Effect Transistor Structures for Terahertz Applications. <i>Nanoscience and Nanotechnology Letters</i> , 2013, 5, 754-757.	0.4	6
70	In-Situ Integration of 3D C-MEMS Microelectrodes with Bipolar Exfoliated Graphene for Label-Free Electrochemical Cancer Biomarkers Aptasensor. <i>Micromachines</i> , 2022, 13, 104.	2.9	6
71	A Facile Fabrication of Porous and Breathable Dielectric Film for Capacitive Pressure Sensor. , 2020, , .		6
72	A Multi-Element VLC Architecture for High Spatial Reuse. , 2015, , .		5

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73	Analyzing Photothermal Heat Generation Efficiency in a Molecular Plasmonic Silver Nanomatryushka Dimer. <i>Plasmonics</i> , 2016, 11, 493-501.	3.4	5
74	Absorption Enhancement in Ultrathin Structures Based on Crystalline-Si/Ag Parabola Nanocones Periodic Arrays with Broadband Antireflection Property. <i>Silicon</i> , 2017, 9, 25-29.	3.3	5
75	AI Powered THz Testing Technology for Ensuring Hardware Cybersecurity. , 2020, , .		5
76	Additive manufacturing of borosilicate glass via stereolithography. <i>Ceramics International</i> , 2022, 48, 12721-12728.	4.8	5
77	Implantable Devices for the Treatment of Breast Cancer. <i>Journal of Nanotheranostics</i> , 2022, 3, 19-38.	3.1	5
78	Improving High-Frequency Characteristics of Graphene FETs by Field-Controlling Electrodes. <i>IEEE Electron Device Letters</i> , 2013, 34, 1193-1195.	3.9	4
79	Sonochemically Synthesized ZnO Nanostructure-Based L-Lactate Enzymatic Sensors on Flexible Substrates. <i>MRS Advances</i> , 2018, 3, 277-282.	0.9	4
80	Synthesis of Crystalline ZnO Nanosheets on Graphene and Other Substrates at Ambient Conditions. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1449, 121.	0.1	3
81	Electromagnetic wave propagation along T and Y-splitters composed of silicon nanorods, gold slots, and silica substrate. <i>Optics Communications</i> , 2015, 343, 73-79.	2.1	3
82	Self-Assembled silicon-based clusters to design efficient, fast, and controllable Fano switches. <i>Microwave and Optical Technology Letters</i> , 2015, 57, 1242-1246.	1.4	3
83	Graphene FETs with Low-Resistance Hybrid Contacts for Improved High Frequency Performance. <i>Nanomaterials</i> , 2016, 6, 86.	4.1	3
84	Bandgap engineering of single layer graphene by randomly distributed nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 7454-7459.	2.2	3
85	ZnO Nanoflakes based Enzymatic Sensor for the determination of lactic acid in sweat. , 2019, , .		3
86	Multiple Fano Resonances in Plasmonic Metamaterials Composed of Al/Al <sub>2</sub> O <sub>3</sub> Nanomatryushka Structures. <i>Materials Research Society Symposia Proceedings</i> , 2015, 1788, 43-48.	0.1	2
87	THz Detectors. , 2016, , 373-414.		2
88	Sonochemically Synthesized Zinc Oxide Nanoflakes Based Electrochemical Immunosensor for Ethyl Glucuronide (EtG) Detection. <i>ECS Transactions</i> , 2017, 80, 1287-1294.	0.5	2
89	Optothermally Controlled Charge Transfer Plasmons in Au-Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> Core-Shell Dimers. <i>Plasmonics</i> , 2018, 13, 1921-1928.	3.4	2
90	Hybrid Toroidal Modes in Planar Core-Shell Metamaterial Structures. , 2018, , .		2

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91	Silicon Nanowire Integrated Electrolyte-Insulator-Semiconductor Sensor with an Above-Nernstian Sensitivity for Bio-Sensing Applications. Materials Research Society Symposia Proceedings, 2012, 1439, 127-132.	0.1	1
92	Ultraviolet LED based compact and fast cortisol detector with ultra high sensitivity. , 2016, , .		1
93	Hybrid Toroidal Resonance Response in Planar Core-Shell THz Metasurfaces. Plasmonics, 2021, 16, 1657-1663.	3.4	1
94	Silicon nanorodsâ€based allâ€dielectric waveguides with long decayâ€length at the telecommunication band. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2016, 29, 530-543.	1.9	0
95	Optothermally Tuned Charge Transfer Plasmons in Au-Ge2Sb2Te5 Core-Shell Assemblies. MRS Advances, 2018, 3, 1919-1924.	0.9	0
96	Performance Evaluation of Liquid 3D Chip Cooling Systems Under Non-Uniform Power Density: Effects of Inlet and Plenum Configurations. , 2019, , .		0
97	Sonochemically Synthesized ZnO Nanostructured Piezoelectric Layers for Self-Powered Sensor Applications. MRS Advances, 2019, 4, 1355-1360.	0.9	0
98	Highly Tunable, Flexible and Stretchable Frequency Selective Surface-Based THz Bandpass Filter. , 2019, , .		0
99	Raman Signal Amplification in Photonic Crystal Microring Resonators. , 2019, , .		0