

Oscar Vazquez-Mena

List of Publications by Year in descending order

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Version: 2024-02-01

46
papers

901
citations

516215

16
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476904

29
g-index

47
all docs

47
docs citations

47
times ranked

1371
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | π-π Interactions Mediated Pyrene Based Ligand Enhanced Photoresponse in Hybrid Graphene/PbS Quantum Dots Photodetectors. <i>Advanced Electronic Materials</i> , 2022, 8, 2100672. | 2.6 | 5 |
| 2 | Measuring the carrier diffusion length in quantum dot films using graphene as photocarrier density probe. <i>Journal of Chemical Physics</i> , 2022, 156, 024702. | 1.2 | 3 |
| 3 | Design and Fabrication of Negative-Refractive-Index Metamaterial Unit Cells for Near-Megahertz Enhanced Acoustic Transmission in Biomedical Ultrasound Applications. <i>Physical Review Applied</i> , 2021, 15, . | 1.5 | 18 |
| 4 | High performance Pb+2 detection using CVD-produced high quality multilayer reduced graphene oxide. <i>Nano Express</i> , 2021, 2, 010023. | 1.2 | 2 |
| 5 | Ultrathin 5 nm Thick Silicon Nanowires Intercalated with Reduced Graphene Oxide Binderless Anode for Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2021, 4, 6391-6398. | 2.5 | 1 |
| 6 | High resolution patterning of PbS quantum dots/graphene photodetectors with high responsivity via photolithography with a top graphene layer to protect surface ligands. <i>Nanoscale Advances</i> , 2021, 3, 6206-6212. | 2.2 | 4 |
| 7 | Direct chemical conversion of continuous CVD graphene/graphite films to graphene oxide without exfoliation. <i>Carbon</i> , 2020, 158, 202-209. | 5.4 | 22 |
| 8 | Enhanced Charge Transfer and Responsivity in Hybrid Quantum Dot/Graphene Photodetectors Using ZnO as Intermediate Electron Collecting Layer. <i>Advanced Electronic Materials</i> , 2020, 6, 2000014. | 2.6 | 16 |
| 9 | Near full light absorption and full charge collection in 1-micron thick quantum dot photodetector using intercalated graphene monolayer electrodes. <i>Nanoscale</i> , 2020, 12, 4909-4915. | 2.8 | 11 |
| 10 | Frequency and damping effect of suspended silicon nitride membranes in water near the megahertz range. <i>Journal of Micromechanics and Microengineering</i> , 2020, 30, 125006. | 1.5 | 1 |
| 11 | Implementation of Metallic Vertical Interconnect Access in Hybrid Intercalated Graphene/Quantum Dot Photodetector for Improved Charge Collection. <i>Frontiers in Materials</i> , 2019, 6, . | 1.2 | 5 |
| 12 | Electrochemical functionalization strategy for chemical vapor deposited graphene on silicon substrates: grafting, electronic properties and biosensing. <i>Nanotechnology</i> , 2019, 30, 475703. | 1.3 | 2 |
| 13 | Improved Charge Extraction Beyond Diffusion Length by Layer-by-Layer Multistacking Intercalation of Graphene Layers inside Quantum Dots Films. <i>Advanced Materials</i> , 2019, 31, e1807894. | 11.1 | 21 |
| 14 | Optoelectronic response of hybrid PbS-QD/graphene photodetectors. <i>Journal of Chemical Physics</i> , 2019, 151, 234705. | 1.2 | 17 |
| 15 | Integration of Nanomaterials into Three-Dimensional Vertical Architectures. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 28262-28268. | 4.0 | 2 |
| 16 | Metal insulator semiconductor solar cell devices based on a Cu ₂ O substrate utilizing h-BN as an insulating and passivating layer. <i>Applied Physics Letters</i> , 2015, 106, . | 1.5 | 20 |
| 17 | Performance Enhancement of a Graphene-Zinc Phosphide Solar Cell Using the Electric Field-Effect. <i>Nano Letters</i> , 2014, 14, 4280-4285. | 4.5 | 45 |
| 18 | Stencil-Nanopatterned Back Reflectors for Thin-Film Amorphous Silicon n-i-p Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2013, 3, 22-26. | 1.5 | 14 |

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|----|---|-----|-----------|
| 19 | A novel architecture for photovoltaic devices: Field-effect solar cells using screening-engineered nanoelectrodes for silicon and earth abundant cuprous oxide. , 2013, , . | | 1 |
| 20 | A novel architecture for photovoltaic devices: Field-effect solar cells using screening-engineered nanoelectrodes for silicon and earth abundant cuprous oxide. , 2013, , . | | 0 |
| 21 | Resistless Fabrication of Nanoimprint Lithography (NIL) Stamps Using Nano-Stencil Lithography. Micromachines, 2013, 4, 370-377. | 1.4 | 8 |
| 22 | All-stencil transistor fabrication on 3D silicon substrates. Journal of Micromechanics and Microengineering, 2012, 22, 095022. | 1.5 | 7 |
| 23 | Facile fabrication of nanofluidic diode membranes using anodic aluminium oxide. Nanoscale, 2012, 4, 5718. | 2.8 | 70 |
| 24 | Compliant membranes improve resolution in full-wafer micro/nanostencil lithography. Nanoscale, 2012, 4, 773-778. | 2.8 | 15 |
| 25 | Stencil-nanopatterned back reflectors for thin-film amorphous silicon n-i-p solar cells. , 2012, , . | | 1 |
| 26 | High-Resolution Resistless Nanopatterning on Polymer and Flexible Substrates for Plasmonic Biosensing Using Stencil Masks. ACS Nano, 2012, 6, 5474-5481. | 7.3 | 57 |
| 27 | Screening-Engineered Field-Effect Solar Cells. Nano Letters, 2012, 12, 4300-4304. | 4.5 | 58 |
| 28 | Reliable and Improved Nanoscale Stencil Lithography by Membrane Stabilization, Blurring, and Clogging Corrections. IEEE Nanotechnology Magazine, 2011, 10, 352-357. | 1.1 | 26 |
| 29 | Localized Ion Implantation Through Micro/Nanostencil Masks. IEEE Nanotechnology Magazine, 2011, 10, 940-946. | 1.1 | 16 |
| 30 | Metallic Nanodot Arrays by Stencil Lithography for Plasmonic Biosensing Applications. ACS Nano, 2011, 5, 844-853. | 7.3 | 87 |
| 31 | Robust PECVD SiC membrane made for stencil lithography. Microelectronic Engineering, 2011, 88, 2790-2793. | 1.1 | 9 |
| 32 | Stenciled conducting bismuth nanowires. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, 169-172. | 0.6 | 14 |
| 33 | Minimized blurring in stencil lithography using a compliant membrane. , 2009, , . | | 1 |
| 34 | Nanostencil and Inkjet Printing for Bionanotechnology Applications. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2009, , 222-228. | 0.2 | 1 |
| 35 | Analysis of the blurring in stencil lithography. Nanotechnology, 2009, 20, 415303. | 1.3 | 60 |
| 36 | Direct Etching of High Aspect Ratio Structures Through a Stencil. , 2009, , . | | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Analysis and applications of nanostructures created by stencil lithography. , 2009, , . | | 3 |
| 38 | Focused Ion Beam: A Versatile Technique for the Fabrication of Nano-Devices. Praktische Metallographie/Practical Metallography, 2009, 46, 154-156. | 0.1 | 2 |
| 39 | Resistivity measurements of gold wires fabricated by stencil lithography on flexible polymer substrates. Microelectronic Engineering, 2008, 85, 1108-1111. | 1.1 | 29 |
| 40 | Etching of sub-micrometer structures through Stencil. Microelectronic Engineering, 2008, 85, 1010-1014. | 1.1 | 25 |
| 41 | Reusability of nanostencils for the patterning of Aluminum nanostructures by selective wet etching. Microelectronic Engineering, 2008, 85, 1237-1240. | 1.1 | 29 |
| 42 | A single nanotrench in a palladium microwire for hydrogen detection. Nanotechnology, 2008, 19, 125502. | 1.3 | 61 |
| 43 | Metallic Nanowires by Full Wafer Stencil Lithography. Nano Letters, 2008, 8, 3675-3682. | 4.5 | 101 |
| 44 | Sub-100 nm-scale aluminum nanowires by stencil lithography: Fabrication and characterization. , 2008, , . | | 1 |
| 45 | Patterning of parallel nanobridge structures by reverse nanostencil lithography using an edge-patterned stencil. Nanotechnology, 2007, 18, 044002. | 1.3 | 6 |
| 46 | Negative-Index Acoustic Metamaterial Operating above 100 kHz in Water Using Microstructured Silicon Chips as Unit Cells. Advanced Materials Technologies, 0, , 2200407. | 3.0 | 0 |