# Richard ArÃ¨s

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1291844/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 40 papers | 597 citations | 687363 13 h-index | 610901 24 g-index |
| 40 all docs | 40 docs citations | 40 times ranked | 516 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Inâ€Situ Transmission Electron Microscopy Observation of Germanium Growth on Freestanding Graphene: Unfolding Mechanism of 3D Crystal Growth During Van der Waals Epitaxy. Small, 2022, 18, e2101890. | 10.0 | 5 |
| 2 | Probing the coupling between the components in a grapheneâ€“mesoporous germanium nanocomposite using high-pressure Raman spectroscopy. Nanoscale Advances, 2021, 3, 2577-2584. | 4.6 | 2 |
| 3 | Shape control of cathodized germanium oxide nanoparticles. Electrochemistry Communications, 2021, 122, 106906. | 4.7 | 6 |
| 4 | Ultrafast photocarrier dynamics in Fe-implanted InGaAs polycrystalline photoconductive materials. Journal of Physics Condensed Matter, 2021, 33, 385701. | 1.8 | 1 |
| 5 | On the Test Particle Monte-Carlo method to solve the steady state Boltzmann equation, the congruity of its results with experiments and its potential for shared memory parallelism. Journal of Computational Physics, 2021, 444, 110590. | 3.8 | 1 |
| 6 | Structural, optical and terahertz properties of graphene-mesoporous silicon nanocomposites. Nanoscale Advances, 2020, 2, 340-346. | 4.6 | 8 |
| 7 | Optimized duplicated-junction solar cells: An innovative approach for energy harvesting at ultra-high concentrations. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 8 | Integration of 3D nanographene into mesoporous germanium. Nanoscale, 2020, 12, 23984-23994. | 5.6 | 6 |
| 9 | Terahertz photoconductivity and photocarrier dynamics in grapheneâ€“mesoporous silicon nanocomposites. Physical Review B, 2020, 102, . | 3.2 | 1 |
| 10 | Effect of sintering germanium epilayers on dislocation dynamics: From theory to experimental observation. Acta Materialia, 2020, 200, 608-618. | 7.9 | 2 |
| 11 | Costâ€effective energy harvesting at ultraâ€high concentration with duplicated concentrated photovoltaic solar cells. Energy Science and Engineering, 2020, 8, 2760-2770. | 4.0 | 8 |
| 12 | AlN grown by CBE for power device applications. AIP Advances, 2020, 10, 065123. | 1.3 | 0 |
| 13 | Engineering dislocations and nanovoids for high-efficiency IIIâ€“V photovoltaic cells on silicon. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 14 | Uprooting defects to enable high-performance IIIâ€“V optoelectronic devices on silicon. Nature Communications, 2019, 10, 4322. | 12.8 | 44 |
| 15 | Graphene-porous semiconductor nanocomposites scalable synthesis for energy applications. Journal of Physics: Conference Series, 2019, 1407, 012069. | 0.4 | 0 |
| 16 | A porous Ge/Si interface layer for defect-free III-V multi-junction solar cells on silicon. , 2019, , . | | 5 |
| 17 | Tunable conductivity in mesoporous germanium. Nanotechnology, 2018, 29, 215701. | 2.6 | 17 |
| 18 | Extreme temperature stability of thermally insulating graphene-mesoporous-silicon nanocomposite. Nanotechnology, 2018, 29, 145701. | 2.6 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Challenges and strategies for implementing the vertical epitaxial heterostructure architechture (VEHSA) design for concentrated photovoltaic applications. Solar Energy Materials and Solar Cells, 2018, 181, 46-52. | 6.2 | 18 |
| 20 | Metastable States in Pressurized Bulk and Mesoporous Germanium. Journal of Physical Chemistry C, 2018, 122, 10929-10938. | 3.1 | 6 |
| 21 | Fast growth synthesis of mesoporous germanium films by high frequency bipolar electrochemical etching. Electrochimica Acta, 2017, 232, 422-430. | 5.2 | 33 |
| 22 | Grapheneâ€“Mesoporous Si Nanocomposite as a Compliant Substrate for Heteroepitaxy. Small, 2017, 13, 1603269. | 10.0 | 11 |
| 23 | Measurement of strong photon recycling in ultraâ€thin GaAs n/p junctions monolithically integrated in highâ€photovoltage vertical epitaxial heterostructure architectures with conversion efficiencies exceeding 60%. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1600385. | 2.4 | 27 |
| 24 | Chemical Composition of Nanoporous Layer Formed by Electrochemical Etching of p-Type GaAs. Nanoscale Research Letters, 2016, 11, 446. | 5.7 | 39 |
| 25 | High-photovoltage GaAs vertical epitaxial monolithic heterostructures with 20 thin p/n junctions and a conversion efficiency of 60%. Applied Physics Letters, 2016, 109, . | 3.3 | 71 |
| 26 | Thin n/p GaAs Junctions for Novel High-Efficiency Phototransducers Based on a Vertical Epitaxial Heterostructure Architecture. MRS Advances, 2016, 1, 881-890. | 0.9 | 11 |
| 27 | Ultrahigh efficiencies in vertical epitaxial heterostructure architectures. Applied Physics Letters, 2016, 108, . | 3.3 | 82 |
| 28 | Enhanced photocarrier extraction mechanisms in ultra-thin photovoltaic GaAs n/p junctions. Proceedings of SPIE, 2016, , . | 0.8 | 4 |
| 29 | Advances with vertical epitaxial heterostructure architecture (VEHSA) phototransducers for optical to electrical power conversion efficiencies exceeding 50 percent. Proceedings of SPIE, 2016, , . | 0.8 | 6 |
| 30 | Focused gas beam injection for efficient ammonia-molecular beam epitaxial growth of III-nitride semiconductors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, . | 1.2 | 1 |
| 31 | Microstructural evolution of a recrystallized Fe-implanted InGaAsP/InP heterostructure. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1888-1896. | 1.8 | 3 |
| 32 | Critical process temperatures for resistive InGaAsP/InP heterostructures heavily implanted by Fe or Ga ions. Nuclear Instruments & Methods in Physics Research B, 2015, 359, 99-106. | 1.4 | 4 |
| 33 | Approaching the Shockley-Queisser limit: General assessment of the main limiting mechanisms in photovoltaic cells. Journal of Applied Physics, 2015, 117, . | 2.5 | 26 |
| 34 | Five-volt vertically-stacked, single-cell GaAs photonic power converter. Proceedings of SPIE, 2015, , . | 0.8 | 15 |
| 35 | Near-infrared emission from mesoporous crystalline germanium. AIP Advances, 2014, 4, 107128. | 1.3 | 6 |
| 36 | Mesoporous germanium morphology transformation for lift-off process and substrate re-use. Applied Physics Letters, 2013, 102, . | 3.3 | 39 |

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|---|---|---|---|
| 37 | Control of mesoporous silicon initiation by cathodic passivation. Electrochemistry Communications, 2013, 36, 84-87. | 4.7 | 7 |
| 38 | Mesoporous Germanium formed by bipolar electrochemical etching. Electrochimica Acta, 2013, 88, 256-262. | 5.2 | 35 |
| 39 | Fabrication of high resistivity cold-implanted InGaAsP photoconductors for efficient pulsed terahertz devices. Optical Materials Express, 2011, 1, 1165. | 3.0 | 25 |
| 40 | Theoretical and experimental molecular beam angular distribution studies for gas injection in ultra-high vacuum. Journal of Crystal Growth, 2009, 311, 1640-1645. | 1.5 | 9 |