# Valeriu Filip

List of Publications by Year
in descending order

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| 95 | 1,282 | 687363 | 395702 |
|---|---|---|---|
| papers | citations | 13 h-index | 33 g-index |

| 96 | 96 | 96 | 969 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Carbon nanotubes as electron source in an x-ray tube. Applied Physics Letters, 2001, 78, 2578-2580. | 3.3 | 410 |
| 2 | Growth of aligned carbon nanotubes by plasma-enhanced chemical vapor deposition: Optimization of growth parameters. Journal of Applied Physics, 2001, 90, 1529-1533. | 2.5 | 111 |
| 3 | Modeling the electron field emission from carbon nanotube films. Ultramicroscopy, 2001, 89, 39-49. | 1.9 | 92 |
| 4 | Emission statistics for Si and HfC emitter arrays after residual gas exposure. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 707. | 1.6 | 73 |
| 5 | Modeling of the electron field emission from carbon nanotubes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1016. | 1.6 | 51 |
| 6 | Temperature-dependent light-emitting characteristics of InGaN/GaN diodes. Microelectronics Reliability, 2009, 49, 38-41. | 1.7 | 43 |
| 7 | Material properties of interfacial silicate layer and its influence on the electrical characteristics of MOS devices using hafnia as the gate dielectric. Thin Solid Films, 2006, 504, 192-196. | 1.8 | 33 |
| 8 | Silicon integrated photonics begins to revolutionize. Microelectronics Reliability, 2007, 47, 1-10. | 1.7 | 33 |
| 9 | Modeling of field emission nanotriodes with carbon nanotube emitters. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 366. | 1.6 | 27 |
| 10 | Modelling of a magnetic sensor based on vacuum field emission. Applied Surface Science, 1996, 94-95, 87-93. | 6.1 | 17 |
| 11 | Current transport and high-field reliability of aluminum/hafnium oxide/silicon structure. Thin Solid Films, 2006, 504, 312-316. | 1.8 | 17 |
| 12 | Growth of Y-junction bamboo-shaped CNx nanotubes on GaAs substrate using single feedstock. Applied Surface Science, 2009, 255, 4611-4615. | 6.1 | 17 |
| 13 | Characterization of enhanced field emission from HfC-coated Si emitter arrays through parameter extraction. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1227. | 1.6 | 15 |
| 14 | Model parameter extraction for nonlinear Fowlerâ€“Nordheim field emission data. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1550. | 1.6 | 14 |
| 15 | Review on peculiar issues of field emission in vacuum nanoelectronic devices. Solid-State Electronics, 2017, 138, 3-15. | 1.4 | 14 |
| 16 | Proposal for a new self-focusing configuration involving porous silicon for field emission flat panel displays. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 2369-2374. | 2.1 | 13 |
| 17 | Field electron emission from carbon nanotubes grown by plasma-enhanced chemical vapor deposition. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 122. | 1.6 | 12 |
| 18 | Bonding Structure of Silicon Oxynitride Grown by Plasma-Enhanced Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2007, 46, 3202-3205. | 1.5 | 12 |

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|---|---|---|---|
| 19 | Modelling of the field emission microtriode with emitter covered with porous silicon. Applied Surface Science, 1996, 94-95, 79-86. | 6.1 | 11 |
| 20 | Nitrogen Incorporation into Hafnium Oxide Films by Plasma Immersion Ion Implantation. Japanese Journal of Applied Physics, 2007, 46, 3234-3238. | 1.5 | 11 |
| 21 | Degradation behaviors of GaN light-emitting diodes under high-temperature and high-current stressing. Microelectronics Reliability, 2012, 52, 1636-1639. | 1.7 | 11 |
| 22 | Electrochemical Recycling of Platinum Group Metals from Spent Catalytic Converters. Metals, 2020, 10, 822. | 2.3 | 11 |
| 23 | A conceptual design for a microelectronic ionization vacuum gauge. Applied Surface Science, 1998, 126, 292-302. | 6.1 | 10 |
| 24 | Analysis of a pressure sensor based on an array of collector-assisted field-emission triodes. Review of Scientific Instruments, 1997, 68, 4615-4620. | 1.3 | 9 |
| 25 | Analysis of microwave generation by field emitted electrons moving in crossed electric and magnetic fields. Applied Surface Science, 1997, 111, 185-193. | 6.1 | 9 |
| 26 | Study of the inverted-magnetron cold emission microelectronic vacuum gauge. Ultramicroscopy, 1998, 73, 129-137. | 1.9 | 9 |
| 27 | Influence of the electronic structure on the field electron emission from carbon nanotubes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 382. | 1.6 | 9 |
| 28 | Transient and stationary field emission currents from semiconductors computed by a simple semi-classical method. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 888. | 1.6 | 8 |
| 29 | Dual-Gate Electron Emission Structure with Nanotube-on-Emitter for X-Ray Generation. Japanese Journal of Applied Physics, 2002, 41, 5551-5556. | 1.5 | 8 |
| 30 | Photoluminescence of Silicon Nanocrystals Embedded in Silicon Oxide. Journal of Nanoscience and Nanotechnology, 2009, 9, 1272-1276. | 0.9 | 8 |
| 31 | Focusing Properties of Volcano-Shaped Dual-Gate Field Emitters. Japanese Journal of Applied Physics, 2001, 40, 83-86. | 1.5 | 7 |
| 32 | General Analytical Relationship for Electric Field of Gated Field Emitters. Japanese Journal of Applied Physics, 2005, 44, 3854-3859. | 1.5 | 7 |
| 33 | Field electron emission from two-dimensional electron gas. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 657. | 1.6 | 7 |
| 34 | High-efficiency light-emitting device based on silicon nanostructures and tunneling carrier injection. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2449. | 1.6 | 7 |
| 35 | Coherent and sequential tunneling mechanisms for field electron emission through layers of wide band gap materials. Journal of Vacuum Science & Technology B, 2006, 24, 881. | 1.3 | 7 |
| 36 | Analytical modeling for the electron emission properties of carbon nanotube arrays. Journal of Vacuum Science & Technology B, 2007, 25, 472. | 1.3 | 7 |

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|---|---|---|---|
| 37 | Miniature x-ray tubes: current state and future prospects. Journal of Instrumentation, 2013, 8, T03005-T03005. | 1.2 | 7 |
| 38 | AFM study on the surface morphologies of TiN films prepared by magnetron sputtering and Al 2 O 3 films prepared by atomic layer deposition. Vacuum, 2018, 153, 139-144. | 3.5 | 7 |
| 39 | Analytical model for electron field emission from capped carbon nanotubes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1234. | 1.6 | 6 |
| 40 | Quantum charge transportation in metal-oxide-Si structures with ultrathin oxide. Journal of Vacuum Science & Technology B, 2006, 24, 38. | 1.3 | 6 |
| 41 | Modeling of a miniaturized mass spectrometer with field emission electron source. Applied Surface Science, 1999, 146, 217-223. | 6.1 | 5 |
| 42 | Transport phenomena related to electron field emission from semiconductors through thick oxide layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 520. | 1.6 | 5 |
| 43 | Field Emitter Magnetic Sensor with Steered Focused Electron Beam. Japanese Journal of Applied Physics, 2001, 40, 2173-2177. | 1.5 | 5 |
| 44 | Electroluminescence of silicon nanoclusters excited by tunneling carrier injection. Journal of Vacuum Science & Technology B, 2008, 26, 813-820. | 1.3 | 5 |
| 45 | Modeling of field emission microtriodes with Si semiconductor emitters. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 542. | 1.6 | 4 |
| 46 | Calculation of the field emission current density from n-SI through injection in N-doped diamond. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 937. | 1.6 | 4 |
| 47 | Focusing Properties of a Novel Dual-Gate Edge Emitter. Japanese Journal of Applied Physics, 2000, 39, 5800-5804. | 1.5 | 4 |
| 48 | Device Applied Fowler-Nordheim Relationship. Japanese Journal of Applied Physics, 2001, 40, 4802-4805. | 1.5 | 4 |
| 49 | Electron-Beam Focusing and Deflection Properties for Misaligned Dual Gate Field Emitters. Japanese Journal of Applied Physics, 2001, 40, 3996-4001. | 1.5 | 4 |
| 50 | Parameter dispersion characterization for arrays of HfC-coated emitters on poly-Si substrate. Journal of Vacuum Science & Technology B, 2006, 24, 1045. | 1.3 | 4 |
| 51 | Electron motion and confinement in the orbitip vacuum gauge. Ultramicroscopy, 1999, 79, 159-166. | 1.9 | 3 |
| 52 | Vacuum microelectronics devices based on the controlled electron motion in electric and magnetic fields. EPJ Applied Physics, 2000, 10, 33-42. | 0.7 | 3 |
| 53 | Analysis of a pressure sensor using n-Si/nitrogen doped diamond cathodes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1077. | 1.6 | 3 |
| 54 | Focusing properties of dual-gate field emitters. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 892. | 1.6 | 3 |

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|---|---|---|---|
| 55 | Stressing effects on the charge trapping of silicon oxynitride prepared by thermal oxidation of LPCVD Si-rich silicon nitride. Thin Solid Films, 2006, 504, 7-10. | 1.8 | 3 |
| 56 | Comparative study of resonant and sequential features in electron field emission from composite surfaces. Thin Solid Films, 2016, 608, 26-33. | 1.8 | 3 |
| 57 | Electron motion and confinement in the orbitip vacuum gauge. Ultramicroscopy, 1999, 79, 167-174. | 1.9 | 2 |
| 58 | Electron field emission from semiconductors through oxide layers: possible transport effects. Applied Surface Science, 1999, 146, 347-356. | 6.1 | 2 |
| 59 | Proposal and modeling of a novel thermal microprobe using n-Si/nitrogen doped diamond cathodes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1073. | 1.6 | 2 |
| 60 | Electron Motion Three-Dimensional Confinement for Microelectronic Vacuum Gauges with Field Emitters. Japanese Journal of Applied Physics, 2001, 40, 2165-2172. | 1.5 | 2 |
| 61 | Sequential tunneling model of field emission through dielectric deposits on nanotips. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1692. | 1.6 | 2 |
| 62 | A novel light emitting device based on Si nanostructures and tunneling injection of carriers. , 0, , . | | 2 |
| 63 | Dielectric breakdown characteristics and interface trapping of hafnium oxide films. , 0, , . | | 2 |
| 64 | Emission Statistics for HfC Emitter Arrays after Residual Gas Exposure. Japanese Journal of Applied Physics, 2005, 44, 5959-5963. | 1.5 | 2 |
| 65 | A double-layer current conduction model for high-Î¹ gate dielectric materials with interfacial oxide or silicate layer. Microelectronic Engineering, 2006, 83, 1950-1956. | 2.4 | 2 |
| 66 | Assessing the size distribution of droplets in a cloud chamber from light extinction data during a transient regime. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 109, 29-36. | 1.6 | 2 |
| 67 | Tunneling-based charge percolation transport in a random network of semi-conductive nanoclusters embedded in a dielectric matrix. Thin Solid Films, 2015, 574, 84-92. | 1.8 | 2 |
| 68 | Influence of electron quantum confinement on the strength of carbon nanotube bundles. Solid State Electronics Letters, 2019, 1, 1-9. | 1.0 | 2 |
| 69 | Proposal for a new UV-light generating device based on cold electron emission. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2885-2889. | 2.1 | 1 |
| 70 | Oscillator Ionization Vacuum Gauge with Field Emitters. Japanese Journal of Applied Physics, 2002, 41, 5945-5950. | 1.5 | 1 |
| 71 | Definition of curve fitting parameter to study tunneling and trapping of electrons in Si/ultra-thin SiO2/metal structures. Microelectronics Reliability, 2006, 46, 1027-1034. | 1.7 | 1 |
| 72 | Silicon Integrated Photonics for Microelectronics Evolution. , 0, , . | | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Preparation of Si nanocrystallites by phase separation of Si-rich silicon nitride. , 2008, , . | | 1 |
| 74 | Background analysis of field-induced electron emission from nanometer-scale heterostructured emitters. Journal of Vacuum Science & Technology B, 2009, 27, 711-718. | 1.3 | 1 |
| 75 | Probability Current and Antiresonances of Particle Tunneling Through Biased Heterostructures. Journal of Nanoscience and Nanotechnology, 2009, 9, 1237-1241. | 0.9 | 1 |
| 76 | Model for trap-assisted electron tunneling in thin insulators. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2A58-C2A63. | 1.2 | 1 |
| 77 | Modeling of terminal ring structures for high-voltage power MOSFETs. Microelectronics Reliability, 2012, 52, 1645-1650. | 1.7 | 1 |
| 78 | Possible Generation of Transient THz Electronic Drift Effects in a Semiconductor by a High Electric Field. Journal De Physique, I, 1996, 6, 403-412. | 1.2 | 1 |
| 79 | Transient and Stationary Field Emission Currents from Semiconductors Computed by a Simple Semi-Classical Method. , 1997, , . | | 0 |
| 80 | Probe Anode as a Characterization Tool for Field Emission Arrays. Japanese Journal of Applied Physics, 1999, 38, 6237-6239. | 1.5 | 0 |
| 81 | The influence of the electronic structure on the field electron emission from carbon nanotubes. , 0, , . | | 0 |
| 82 | Modeling of field emission nanotriodes with carbon nanotube emitters. , 0, , . | | 0 |
| 83 | Characterization of enhanced field emission from HfC-coated Si emitter arrays through parameter extraction. , 0, , . | | 0 |
| 84 | Modeling and simulation of tunneling current in ultrathin oxide with the presence of oxide/silicon interface traps. , 0, , . | | 0 |
| 85 | Field electron emission through and from two-dimensional electron gas. , 0, , . | | 0 |
| 86 | Model of coherent electron field emission from semiconductors through nanometer-wide dielectric coverings. , 0, , . | | 0 |
| 87 | Coherent and sequential tunneling mechanisms for field electron emission through layers of wide band gap materials. , 0, , . | | 0 |
| 88 | Parameter dispersion characterization for arrays of HfC-coated emitters on poly-Si substrate. , 0, , . | | 0 |
| 89 | Modeling of linear carbon nanotube nanotriodes with improved field uniformity. Journal of Vacuum Science & Technology B, 2008, 26, 806-812. | 1.3 | 0 |
| 90 | Model for trap-assisted electron tunneling in thin insulators. , 2009, , . | | 0 |

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|---|---|---|---|
| 91 | Quantum tunneling based percolating transport of electric charges in a network of conductive nanoclusters embedded in a dielectric matrix. , 2013, , . | | 0 |
| 92 | Comparative study of resonant and sequential features in electron field emission from composite surfaces. , 2015, , . | | 0 |
| 93 | Study of composite cathodes in electron field emission devices: Relative contributions of resonant and sequential tunneling. , 2016, , . | | 0 |
| 94 | The scaling issues of subnanometer EOT gate dielectrics for the ultimate nano CMOS technology. , 2017, , . | | 0 |
| 95 | Quantum focusing and filtering of electrons propagating coherently through non-uniform potential barriers. Thin Solid Films, 2018, 660, 546-557. | 1.8 | 0 |