

# Damiano Giubertoni

## List of Publications by Year in descending order

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Version: 2024-02-01

90  
papers

904  
citations

471061

17  
h-index

580395

25  
g-index

90  
all docs

90  
docs citations

90  
times ranked

806  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Selective Effects of the Host Matrix in Hydrogenated InGaAsN Alloys: Toward an Integrated Matrix/Defect Engineering Paradigm. <i>Advanced Functional Materials</i> , 2022, 32, 2108862.   | 7.8 | 0         |
| 2  | Binder-free nanostructured germanium anode for high resilience lithium-ion battery. <i>Electrochimica Acta</i> , 2022, 411, 139832.   | 2.6 | 14        |
| 3  | Bimodal Approach for Noise Figures of Merit Evaluation in Quantum-Limited Josephson Traveling Wave Parametric Amplifiers. <i>IEEE Transactions on Applied Superconductivity</i> , 2022, 32, 1-6.                                  | 1.1 | 8         |
| 4  | Omnidirectional and broadband photon harvesting in self-organized Ge columnar nanovoids. <i>Nanotechnology</i> , 2022, 33, 305304.  | 1.3 | 2         |
| 5  | Porous Germanium Anode for Li-Ion Batteries. <i>ECS Meeting Abstracts</i> , 2019, , .   | 0.0 | 0         |
| 6  | The role of incidence angle in the morphology evolution of Ge surfaces irradiated by medium-energy Au ions. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 324001.  | 0.7 | 5         |
| 7  | Multiscale structured germanium nanoripples as templates for bioactive surfaces. <i>RSC Advances</i> , 2017, 7, 9024-9030.  | 1.7 | 11        |
| 8  | Nanofabrication of self-organized periodic ripples by ion beam sputtering. <i>Microelectronic Engineering</i> , 2016, 155, 50-54.   | 1.1 | 8         |
| 9  | Silicon defects characterization for low temperature ion implantation and RTA process. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2015, 365, 283-287.   | 0.6 | 0         |
| 10 | Peculiarities of the hydrogenated In(AsN) alloy. <i>Semiconductor Science and Technology</i> , 2015, 30, 105030.  | 1.0 | 4         |
| 11 | Evolution of arsenic in high fluence plasma immersion ion implanted silicon: Behavior of the as-implanted surface. <i>Applied Surface Science</i> , 2015, 355, 792-799.   | 3.1 | 4         |
| 12 | H-tailored surface conductivity in narrow band gap In(AsN). <i>Applied Physics Letters</i> , 2015, 106, .   | 1.5 | 4         |
| 13 | Development of nanotopography during SIMS characterization of thin films of Ge <sub>1-x</sub> Sn alloy. <i>Applied Surface Science</i> , 2015, 356, 422-428.  | 3.1 | 1         |
| 14 | Deuterium depth profile quantification in a ASDEX Upgrade divertor tile using secondary ion mass spectrometry. <i>Applied Surface Science</i> , 2014, 315, 459-466.   | 3.1 | 4         |
| 15 | Quality management system and accreditation of measurements in a surface science laboratory: the case study of MiNALab. <i>Surface and Interface Analysis</i> , 2014, 46, 927-930.  | 0.8 | 2         |
| 16 | Combined evaluation of grazing incidence X-ray fluorescence and X-ray reflectivity data for improved profiling of ultra-shallow depth distributions. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2014, 99, 121-128. | 1.5 | 32        |
| 17 | On an improved boron segregation calibration from a particularly sensitive power MOS process. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 12-15.  | 0.8 | 2         |
| 18 | Surface evolution of very high dose arsenic implants in silicon formed by plasma immersion ion implantation – a long term study. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 28-31.         | 0.8 | 4         |

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|----|--|-----|-----------|
| 19 | Observation of point defect injection from electrical deactivation of arsenic ultra-shallow distributions formed by ultra-low energy ion implantation and laser sub-melt annealing. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 16-19. | 0.8 | 0         |
| 20 | Development of nano-roughness under SIMS ion sputtering of germanium surfaces. Surface and Interface Analysis, 2013, 45, 409-412.  | 0.8 | 3         |
| 21 | Calibration correction of ultra low energy SIMS profiles based on MEIS analysis of shallow arsenic implants in silicon. Surface and Interface Analysis, 2013, 45, 413-416.   | 0.8 | 1         |
| 22 | Preface for Proceedings of SIMS XVIII, Riva del Garda, Italy, 2011. Surface and Interface Analysis, 2013, 45, 1-2.   | 0.8 | 1         |
| 23 | Tuning of the optical properties of In-rich $\text{In}_{[x]}\text{Ga}_{[1-x]}\text{N}$ ( $x=0.82\text{--}0.49$ ) alloys by light-ion irradiation at low energy. , 2013, , .  |     | 0         |
| 24 | Nitrogen Implantation and Diffusion in Crystalline Germanium: Implantation Energy, Temperature and Ge Surface Protection Dependence. ECS Journal of Solid State Science and Technology, 2012, 1, P315-P319.  | 0.9 | 8         |
| 25 | Formation of arsenolite crystals at room temperature after very high dose arsenic implantation in silicon. Applied Physics Letters, 2012, 101.   | 1.5 | 5         |
| 26 | Identification of four-hydrogen complexes in In-rich $\text{In}_x\text{Ga}_{1-x}\text{N}$  |     |           |

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|----|---|-----|-----------|
| 37 | Deactivation of submelt laser annealed arsenic ultrashallow junctions in silicon during subsequent thermal treatment. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, C1B1-C1B5.   | 0.6 | 6         |
| 38 | Grazing incidence x-ray fluorescence and secondary ion mass spectrometry combined approach for the characterization of ultrashallow arsenic distribution in silicon. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, C1C59-C1C64.                | 0.6 | 16        |
| 39 | Ultralow energy boron implants in silicon characterization by nonoxidizing secondary ion mass spectrometry analysis and soft x-ray grazing incidence x-ray fluorescence techniques. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, C1C84-C1C89. | 0.6 | 7         |
| 40 | Hydrogen diffusion in GaAs <sub>1-x</sub> N <sub>x</sub> . Physical Review B, 2009, 80, .   | 1.1 | 26        |
| 41 | GIXRF In The Soft X-Ray Range Used For The Characterization Of Ultra Shallow Junctions. , 2009, , .   |     | 3         |
| 42 | Multi-technique characterization of arsenic ultra shallow junctions in silicon within the ANNA consortium. , 2009, , .  |     | 2         |
| 43 | Characterization of junction activation and deactivation using non-equilibrium annealing: Solid phase epitaxy, spike annealing, laser annealing instructions for. , 2009, , .   |     | 0         |
| 44 | Differential Hall characterisation of ultrashallow doping in advanced Si-based materials. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 154-155, 229-233.   | 1.7 | 5         |
| 45 | Correlation of local structure and electrical activation in arsenic ultrashallow junctions in silicon. Journal of Applied Physics, 2008, 104, .   | 1.1 | 18        |
| 46 | P implantation into preamorphized germanium and subsequent annealing: Solid phase epitaxial regrowth, P diffusion, and activation. Journal of Vacuum Science & Technology B, 2008, 26, 430-434.   | 1.3 | 39        |
| 47 | Effect of hydrogen incorporation temperature in plane-engineered GaAsN <sup>+</sup> /GaAsN:H heterostructures. Applied Physics Letters, 2008, 92, 221901.   | 1.5 | 14        |
| 48 | Quantitative determination of the dopant distribution in Si ultrashallow junctions by tilted sample annular dark field scanning transmission electron microscopy. Applied Physics Letters, 2008, 92, 261907.  | 1.5 | 15        |
| 49 | Surface proximity and boron concentration effects on end-of-range defect formation during nonmelt laser annealing. Applied Physics Letters, 2008, 92, .   | 1.5 | 6         |
| 50 | Boron deactivation in preamorphized silicon on insulator: Efficiency of the buried oxide as an interstitial sink. Applied Physics Letters, 2007, 91, .  | 1.5 | 14        |
| 51 | Boron pile-up phenomena during ultra shallow junction formation. , 2007, , .  |     | 0         |
| 52 | Uphill diffusion of ultralow-energy boron implants in preamorphized silicon and silicon-on-insulator. Journal of Applied Physics, 2007, 102, 103707.  | 1.1 | 9         |
| 53 | Si Ultra Shallow Junctions Dopant Profiling with ADF-STEM. Materials Research Society Symposia Proceedings, 2007, 1026, 1.  | 0.1 | 1         |
| 54 | Diffusion and activation of ultrashallow B implants in silicon on insulator: End-of-range defect dissolution and the buried Si <sup>+</sup> /SiO <sub>2</sub> interface. Applied Physics Letters, 2006, 89, 042111.   | 1.5 | 20        |

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|----|---|-----|-----------|
| 55 | Junction Stability of B Doped Layers in SOI Formed with Optimized Vacancy Engineering Implants. AIP Conference Proceedings, 2006, , .   | 0.3 | 3         |
| 56 | Role of the Si <sup>+</sup> •SiO <sub>2</sub> interface during dopant diffusion in thin silicon on insulator layers. Journal of Applied Physics, 2006, 100, 096112.   | 1.1 | 1         |
| 57 | Correlation between silicon-nitride film stress and composition: XPS and SIMS analyses. Surface and Interface Analysis, 2006, 38, 723-726.  | 0.8 | 16        |
| 58 | An EXAFS investigation of arsenic shallow implant activation in silicon after laser sub-melt annealing. Nuclear Instruments & Methods in Physics Research B, 2006, 253, 9-12.   | 0.6 | 8         |
| 59 | Influence of changes in the resistivity of the sample surface on ultra-shallow SIMS profiles for arsenic. Applied Surface Science, 2006, 252, 7286-7289.  | 3.1 | 5         |
| 60 | Comparison between the SIMS and MEIS techniques for the characterization of ultra shallow arsenic implants. Applied Surface Science, 2006, 252, 7214-7217.  | 3.1 | 18        |
| 61 | Boron ultra low energy SIMS depth profiling improved by rotating stage. Applied Surface Science, 2006, 252, 7315-7317.  | 3.1 | 14        |
| 62 | Effect of B dose and Ge preamorphization energy on the electrical and structural properties of ultrashallow junctions in silicon-on-insulator. Materials Research Society Symposia Proceedings, 2006, 912, 1.         | 0.1 | 1         |
| 63 | Effect of buried Si <sup>+</sup> •SiO <sub>2</sub> interface on dopant and defect evolution in preamorphizing implant ultrashallow junction. Journal of Vacuum Science & Technology B, 2006, 24, 442.                 | 1.3 | 4         |
| 64 | Deactivation of ultrashallow boron implants in preamorphized silicon after nonmelt laser annealing with multiple scans. Applied Physics Letters, 2006, 89, 192105.  | 1.5 | 35        |
| 65 | Arsenic uphill diffusion during shallow junction formation. Journal of Applied Physics, 2006, 99, 113508.   | 1.1 | 31        |
| 66 | Vacancy-engineering implants for high boron activation in silicon on insulator. Applied Physics Letters, 2006, 88, 082112.  | 1.5 | 23        |
| 67 | Nonconventional flash annealing on shallow indium implants in silicon. Journal of Vacuum Science & Technology B, 2006, 24, 473.   | 1.3 | 4         |
| 68 | Understanding the role of buried Si/SiO <sub>2</sub> interface on dopant and defect evolution in PAI USJ. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 124-125, 215-218. | 1.7 | 2         |
| 69 | Electrical activation of solid-phase epitaxially regrown ultra-low energy boron implants in Ge preamorphised silicon and SOI. Nuclear Instruments & Methods in Physics Research B, 2005, 237, 107-112.                | 0.6 | 22        |
| 70 | Thermodynamical analysis of abrupt interfaces of InGaP/GaAs and GaAs/InGaP heterostructures. Crystal Research and Technology, 2005, 40, 982-986.  | 0.6 | 2         |
| 71 | Shallow BF <sub>2</sub> implants in Xe-bombardment-preamorphized Si: The interaction between Xe and F. Applied Physics Letters, 2005, 86, 151904.   | 1.5 | 8         |
| 72 | Interphase exchange coupling in Fe <sup>+</sup> •Sm <sup>2+</sup> Co bilayers with gradient Fe thickness. Journal of Applied Physics, 2005, 98, 063908.   | 1.1 | 22        |

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|----|--|-----|-----------|
| 73 | In-depth analysis of the interfaces in InGaP/GaAs heterosystems. EPJ Applied Physics, 2004, 27, 379-383.   | 0.3 | 1         |
| 74 | Optimization of secondary ion mass spectrometry ultra-shallow boron profiles using an oblique incidence O <sub>2</sub> <sup>+</sup> beam. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 336. | 1.6 | 4         |
| 75 | Nondestructive dose determination and depth profiling of arsenic ultrashallow junctions with total reflection X-ray fluorescence analysis compared to dynamic secondary ion mass spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 1243-1249.                            | 1.5 | 23        |
| 76 | The interaction between Xe and F in Si (100) pre-amorphised with 20keV Xe and implanted with low energy BF <sub>2</sub> . Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 198-202.  | 1.7 | 2         |
| 77 | Short-term and long-term RSF repeatability for CAMECA SC-Ultra SIMS measurements. Applied Surface Science, 2004, 231-232, 768-771.   | 3.1 | 5         |
| 78 | Arsenic shallow depth profiling: accurate quantification in SiO <sub>2</sub> /Si stack. Applied Surface Science, 2004, 231-232, 632-635.   | 3.1 | 11        |
| 79 | Sample holder implement for very small samples on SC-ultra SIMS instrument. Applied Surface Science, 2004, 231-232, 959-961.   | 3.1 | 1         |
| 80 | Topography induced by sputtering in a magnetic sector instrument: an AFM and SEM study. Applied Surface Science, 2004, 238, 24-28.   | 3.1 | 13        |
| 81 | Hydrogen as a probe of the electronic properties of (InGa)(AsN)/GaAs heterostructures. Solid-State Electronics, 2003, 47, 447-453.   | 0.8 | 4         |
| 82 | D-SIMS and ToF-SIMS quantitative depth profiles comparison on ultra thin oxynitrides. Applied Surface Science, 2003, 203-204, 281-284.   | 3.1 | 12        |
| 83 | Diffusion and electrical activation of indium in silicon. Journal of Applied Physics, 2003, 93, 9773-9782.   | 1.1 | 21        |
| 84 | Transient enhanced diffusion of arsenic in silicon. Journal of Applied Physics, 2003, 94, 4950.  | 1.1 | 54        |
| 85 | Indium in silicon: a study on diffusion and electrical activation.. Materials Research Society Symposia Proceedings, 2003, 765, 1.   | 0.1 | 1         |
| 86 | Investigation on indium diffusion in silicon. Journal of Applied Physics, 2002, 92, 1361-1366.   | 1.1 | 48        |
| 87 | XPS and SIMS depth profiling of chlorine in high-temperature oxynitrides. Surface and Interface Analysis, 2002, 34, 271-275.   | 0.8 | 1         |
| 88 | Initial reactions in Ti-Si bilayers: New indications from in situ measurements. Journal of Applied Physics, 2001, 89, 6079-6084.   | 1.1 | 14        |
| 89 | Investigation of C <sub>49</sub> -C <sub>54</sub> TiSi <sub>2</sub> transformation kinetics. Microelectronic Engineering, 2000, 50, 153-158.   | 1.1 | 7         |
| 90 | Complementary Metrology within a European Joint Laboratory. Solid State Phenomena, 0, 145-146, 97-100.   | 0.3 | 9         |