

# Norio Tokuda

## List of Publications by Year in descending order

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115  
papers

2,586  
citations

172207

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116  
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116  
docs citations

116  
times ranked

1665  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Selectively buried growth of heavily B doped diamond layers with step-free surfaces in N doped diamond (111) by homoepitaxial lateral growth. Applied Surface Science, 2022, , 153340.                                    | 3.1 | 1         |
| 2  | Impact of nitrogen doping on homoepitaxial diamond (111) growth. Diamond and Related Materials, 2022, 125, 108997.  | 1.8 | 0         |
| 3  | High-Rate Growth of Single-Crystalline Diamond (100) Films by Hot-Filament Chemical Vapor Deposition with Tantalum Filaments at 3000°C. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900244. | 0.8 | 7         |
| 4  | Inversion channel MOSFET on heteroepitaxially grown free-standing diamond. Carbon, 2021, 175, 615-619.  | 5.4 | 9         |
| 5  | Mechanical damage-free surface planarization of single-crystal diamond based on carbon solid solution into nickel. Diamond and Related Materials, 2021, 116, 108390.  | 1.8 | 1         |
| 6  | Inversion-type p-channel diamond MOSFET issues. Journal of Materials Research, 2021, 36, 4688-4702.   | 1.2 | 13        |
| 7  | Insight into temperature impact of Ta filaments on high-growth-rate diamond (100) films by hot-filament chemical vapor deposition. Diamond and Related Materials, 2021, 118, 108515.                                      | 1.8 | 8         |
| 8  | Fabrication of inversion p-channel MOSFET with a nitrogen-doped diamond body. Applied Physics Letters, 2021, 119, .   | 1.5 | 11        |
| 9  | Energy distribution of Al <sub>2</sub> O <sub>3</sub> /diamond interface states characterized by high temperature capacitance-voltage method. Carbon, 2020, 168, 659-664.   | 5.4 | 20        |
| 10 | Insight into Al <sub>2</sub> O <sub>3</sub> /B-doped diamond interface states with high-temperature conductance method. Applied Physics Letters, 2020, 117, .   | 1.5 | 11        |
| 11 | Formation of U-shaped diamond trenches with vertical {111} sidewalls by anisotropic etching of diamond (110) surfaces. Diamond and Related Materials, 2020, 103, 107713.  | 1.8 | 15        |
| 12 | Temperature dependence of diamond MOSFET transport properties. Japanese Journal of Applied Physics, 2020, 59, SGGD19.   | 0.8 | 4         |
| 13 | Step-edge growth and doping of diamond. Semiconductors and Semimetals, 2020, 103, 57-72.  | 0.4 | 1         |
| 14 | High-Rate Growth of Single-Crystalline Diamond (100) Films by Hot-Filament Chemical Vapor Deposition with Tantalum Filaments at 3000°C. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900244. | 0.8 | 7         |
| 15 | Inversion channel mobility and interface state density of diamond MOSFET using N-type body with various phosphorus concentrations. Applied Physics Letters, 2019, 114, .  | 1.5 | 19        |
| 16 | Conductive-probe atomic force microscopy and Kelvin-probe force microscopy characterization of OH-terminated diamond (111) surfaces with step-terrace structures. Japanese Journal of Applied Physics, 2019, 58, SIIB08.  | 0.8 | 5         |
| 17 | Homoepitaxial Diamond Growth by Plasma-Enhanced Chemical Vapor Deposition. Topics in Applied Physics, 2019, , 1-29.   | 0.4 | 3         |
| 18 | High-Rate Growth of Single-Crystalline Diamond (100) Films by Hot-Filament Chemical Vapor Deposition with Tantalum Filaments at 3000°C. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1970071. | 0.8 | 1         |

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|----|---|-----|-----------|
| 19 | Anisotropic diamond etching through thermochemical reaction between Ni and diamond in high-temperature water vapour. <i>Scientific Reports</i> , 2018, 8, 6687.                                   | 1.6 | 41        |
| 20 | Direct observation of inversion capacitance in p-type diamond MOS capacitors with an electron injection layer. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 04FR01.                     | 0.8 | 14        |
| 21 | Formation of atomically flat hydroxyl-terminated diamond ( $1\text{e}^{-}1\text{e}^{-}1$ ) surfaces via water vapor annealing. <i>Applied Surface Science</i> , 2018, 458, 222-225.               | 3.1 | 23        |
| 22 | Quantitative relevance of substitutional impurities to carrier dynamics in diamond. <i>Physical Review Materials</i> , 2018, 2, .   | 0.9 | 9         |
| 23 | Fabrication of graphene on atomically flat diamond (111) surfaces using nickel as a catalyst. <i>Diamond and Related Materials</i> , 2017, 75, 105-109.   | 1.8 | 22        |
| 24 | Self-separation of freestanding diamond films using graphite interlayers precipitated from C-dissolved Ni substrates. <i>Journal of Crystal Growth</i> , 2017, 470, 104-107.                      | 0.7 | 6         |
| 25 | Mechanism of anisotropic etching on diamond (111) surfaces by a hydrogen plasma treatment. <i>Applied Surface Science</i> , 2017, 422, 452-455.   | 3.1 | 22        |
| 26 | Diamond Schottky-pn diode using lightly nitrogen-doped layer. <i>Diamond and Related Materials</i> , 2017, 75, 152-154.   | 1.8 | 37        |
| 27 | B-doped diamond field-effect transistor with ferroelectric vinylidene fluoride-trifluoroethylene gate insulator. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 10PF06.                   | 0.8 | 3         |
| 28 | Influence of substrate misorientation on the surface morphology of homoepitaxial diamond (111) films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 2051-2055. | 0.8 | 10        |
| 29 | H-terminated diamond field effect transistor with ferroelectric gate insulator. <i>Applied Physics Letters</i> , 2016, 108, 242101.   | 1.5 | 7         |
| 30 | Inversion channel diamond metal-oxide-semiconductor field-effect transistor with normally off characteristics. <i>Scientific Reports</i> , 2016, 6, 31585.  | 1.6 | 150       |
| 31 | Atomically flat diamond (100) surface formation by anisotropic etching of solid-solution reaction of carbon into nickel. <i>Diamond and Related Materials</i> , 2016, 68, 127-130.                | 1.8 | 20        |
| 32 | Time-resolved cyclotron resonance on dislocation-free HPHT diamond. <i>Diamond and Related Materials</i> , 2016, 63, 38-42.   | 1.8 | 24        |
| 33 | Homoepitaxial Diamond Growth by Plasma-Enhanced Chemical Vapor Deposition. <i>Topics in Applied Physics</i> , 2015, , 1-29.   | 0.4 | 9         |
| 34 | Realization of Atomically Controlled Diamond Surfaces. <i>Journal of the Japan Society for Precision Engineering</i> , 2014, 80, 433-438.   | 0.0 | 0         |
| 35 | Atomistic mechanism of perfect alignment of nitrogen-vacancy centers in diamond. <i>Applied Physics Letters</i> , 2014, 105, .  | 1.5 | 39        |
| 36 | Density functional studies of surface potentials for hydrogen and oxygen atoms on diamond (111) surfaces. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 02BD01.                          | 0.8 | 3         |

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|----|---|-----|-----------|
| 37 | Anisotropic lateral growth of homoepitaxial diamond (111) films by plasma-enhanced chemical vapor deposition. Japanese Journal of Applied Physics, 2014, 53, 04EH04.                                      | 0.8 | 19        |
| 38 | Free exciton luminescence from a diamond p-n diode grown on a substrate produced by heteroepitaxy. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2251-2256.                    | 0.8 | 14        |
| 39 | Perfect selective alignment of nitrogen-vacancy centers in diamond. Applied Physics Express, 2014, 7, 05201.  | 1.1 | 84        |
| 40 | Reduction of n-type diamond contact resistance by graphite electrode. Physica Status Solidi - Rapid Research Letters, 2014, 8, 137-140.   | 1.2 | 16        |
| 41 | Formation of Graphene-on-Diamond Structure by Graphitization of Atomically Flat Diamond (111) Surface. Japanese Journal of Applied Physics, 2013, 52, 110121.   | 0.8 | 37        |
| 42 | Fabrication of (Bi,Pr)(Fe,Mn)O <sub>3</sub> Thin Films on Polycrystalline Diamond Substrates by Chemical Solution Deposition and Their Properties. Japanese Journal of Applied Physics, 2012, 51, 09LA08. | 0.8 | 5         |
| 43 | Isotope Effect of Deuterium Microwave Plasmas on the Formation of Atomically Flat (111) Diamond Surfaces. Japanese Journal of Applied Physics, 2012, 51, 090106.  | 0.8 | 4         |
| 44 | Formation of Step-Free Surfaces on Diamond (111) Mesas by Homoepitaxial Lateral Growth. Japanese Journal of Applied Physics, 2012, 51, 090107.  | 0.8 | 19        |
| 45 | Fractional Surface Termination of Diamond by Electrochemical Oxidation. Langmuir, 2012, 28, 47-50.  | 1.6 | 38        |
| 46 | Isotope Effect of Deuterium Microwave Plasmas on the Formation of Atomically Flat (111) Diamond Surfaces. Japanese Journal of Applied Physics, 2012, 51, 090106.  | 0.8 | 2         |
| 47 | Formation of Step-Free Surfaces on Diamond (111) Mesas by Homoepitaxial Lateral Growth. Japanese Journal of Applied Physics, 2012, 51, 090107.  | 0.8 | 19        |
| 48 | Fabrication of (Bi,Pr)(Fe,Mn)O <sub>3</sub> Thin Films on Polycrystalline Diamond Substrates by Chemical Solution Deposition and Their Properties. Japanese Journal of Applied Physics, 2012, 51, 09LA08. | 0.8 | 1         |
| 49 | Electron emission from CVD diamond p-n junctions with negative electron affinity during room temperature operation. Diamond and Related Materials, 2011, 20, 917-921.                                     | 1.8 | 10        |
| 50 | Effects of high-temperature annealing on electron spin resonance in SiO <sub>x</sub> films prepared by R. F. sputtering system. Journal of Non-Crystalline Solids, 2011, 357, 981-985.                    | 1.5 | 11        |
| 51 | The creation of a biomimetic interface between boron-doped diamond and immobilized proteins. Biomaterials, 2011, 32, 7325-7332.   | 5.7 | 31        |
| 52 | Carrier transport of diamond p-n junction diode fabricated using low-resistance hopping p and n layers. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 937-942.                 | 0.8 | 5         |
| 53 | Annealing Effects on Cathodoluminescence Properties of SiO <sub>x</sub> Films Deposited by Radio Frequency Sputtering. Japanese Journal of Applied Physics, 2011, 50, 01BF04.                             | 0.8 | 1         |
| 54 | Structure and Electrical Properties of (Pr, Mn)-Codoped BiFeO <sub>3</sub> •B-Doped Diamond Layered Structure. Electrochemical and Solid-State Letters, 2011, 14, G31.                                    | 2.2 | 6         |

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|----|---|-----|-----------|
| 55 | Improvement of (001)-oriented diamond p-i-n diode by use of selective grown n+ layer. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2099-2104.   | 0.8 | 12        |
| 56 | Diamond Schottky-pn diode without trade-off relationship between on-resistance and blocking voltage. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2105-2109.                            | 0.8 | 34        |
| 57 | Electron Emission from a Diamond (111) p-i-n Junction Diode with Negative Electron Affinity during Room Temperature Operation. Applied Physics Express, 2010, 3, 041301.  | 1.1 | 24        |
| 58 | Growth of atomically step-free surface on diamond {111} mesas. Diamond and Related Materials, 2010, 19, 288-290.  | 1.8 | 33        |
| 59 | Electron Emission from Diamond (111) p+i-n+ Junction Diode. Materials Research Society Symposia Proceedings, 2009, 1203, 1.   | 0.1 | 0         |
| 60 | Vertically aligned diamond nanowires: Fabrication, characterization, and application for DNA sensing. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2048-2056.                           | 0.8 | 48        |
| 61 | Diamond Schottky-pn diode with high forward current density. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2086-2090.  | 0.8 | 20        |
| 62 | Doping-induced changes in the valence band edge structure of homoepitaxial B-doped diamond films below Mott's critical density. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1991-1995. | 0.8 | 5         |
| 63 | Diamond Schottky-pn diode with high forward current density and fast switching operation. Applied Physics Letters, 2009, 94, .  | 1.5 | 77        |
| 64 | Flattening of oxidized diamond (111) surfaces with H2SO4/H2O2 solutions. Diamond and Related Materials, 2009, 18, 213-215.  | 1.8 | 12        |
| 65 | Selective Growth of Buried n+Diamond on (001) Phosphorus-Doped n-Type Diamond Film. Applied Physics Express, 2009, 2, 055502.   | 1.1 | 55        |
| 66 | Electrical and light-emitting properties from (111)-oriented homoepitaxial diamond p-i-n junctions. Diamond and Related Materials, 2009, 18, 764-767.   | 1.8 | 18        |
| 67 | Diamond nano-wires, a new approach towards next generation electrochemical gene sensor platforms. Diamond and Related Materials, 2009, 18, 910-917.   | 1.8 | 82        |
| 68 | Characterization of specific contact resistance on heavily phosphorus-doped diamond films. Diamond and Related Materials, 2009, 18, 782-785.  | 1.8 | 35        |
| 69 | Recovery of negative electron affinity by annealing on (111) oxidized diamond surfaces. Diamond and Related Materials, 2009, 18, 206-209.   | 1.8 | 9         |
| 70 | High performance of diamond p+i-n+ junction diode fabricated using heavily doped p+ and n+ layers. Applied Physics Letters, 2009, 94, .   | 1.5 | 73        |
| 71 | Electrical and light-emitting properties of homoepitaxial diamond p-i-n junction. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2200-2206.   | 0.8 | 29        |
| 72 | Electrical activity of doped phosphorus atoms in (001) n-type diamond. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2195-2199.  | 0.8 | 29        |

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|----|--|-----|-----------|
| 73 | Fermi level pinning-free interface at metals/homoepitaxial diamond (111) films after oxidation treatments. Applied Physics Letters, 2008, 92, 112112.  | 1.5 | 14        |
| 74 | Low specific contact resistance of heavily phosphorus-doped diamond film. Applied Physics Letters, 2008, 93, .   | 1.5 | 68        |
| 75 | Photoelectron emission from heavily B-doped homoepitaxial diamond films. Diamond and Related Materials, 2008, 17, 813-816.   | 1.8 | 3         |
| 76 | Atomically flat diamond (111) surface formation by homoepitaxial lateral growth. Diamond and Related Materials, 2008, 17, 1051-1054.   | 1.8 | 43        |
| 77 | Roughening of atomically flat diamond (111) surfaces by a hot HNO <sub>3</sub> /H <sub>2</sub> SO <sub>4</sub> solution. Diamond and Related Materials, 2008, 17, 486-488.   | 1.8 | 14        |
| 78 | Mapping of extended defects in B-doped (001) homoepitaxial diamond films by electron-beam-induced current (EBIC) and cathodoluminescence (CL) combination technique. Diamond and Related Materials, 2008, 17, 489-493. | 1.8 | 5         |
| 79 | Exciton-derived Electron Emission from (001) Diamond p-n Junction Diodes with Negative Electron Affinity. Applied Physics Express, 2008, 1, 015004.  | 1.1 | 8         |
| 80 | Diamond nanowires, a new approach towards next generation electrochemical gene sensor platforms. Nature Precedings, 2008, , .  | 0.1 | 0         |
| 81 | Electrochemical-microscopy analysis of bio-functionalized diamond surfaces. Materials Research Society Symposia Proceedings, 2007, 1039, 1.  | 0.1 | 0         |
| 82 | Hillock-Free Heavily Boron-Doped Homoepitaxial Diamond Films on Misoriented (001) Substrates. Japanese Journal of Applied Physics, 2007, 46, 1469-1470.  | 0.8 | 28        |
| 83 | Cycle of two-step etching process using ICP for diamond MEMS applications. Diamond and Related Materials, 2007, 16, 996-999.   | 1.8 | 47        |
| 84 | Surface roughening of diamond (001) films during homoepitaxial growth in heavy boron doping. Diamond and Related Materials, 2007, 16, 767-770.   | 1.8 | 37        |
| 85 | Inhomogeneous DNA bonding to polycrystalline CVD diamond. Diamond and Related Materials, 2007, 16, 1648-1651.  | 1.8 | 13        |
| 86 | Leakage current analysis of diamond Schottky barrier diode. Applied Physics Letters, 2007, 90, 073506.   | 1.5 | 121       |
| 87 | Electrochemical Grafting of Boron-Doped Single-Crystalline Chemical Vapor Deposition Diamond with Nitrophenyl Molecules. Langmuir, 2007, 23, 3466-3472.  | 1.6 | 106       |
| 88 | Electrical and light-emitting properties of (001)-oriented homoepitaxial diamond p-n junction. Diamond and Related Materials, 2007, 16, 1025-1028.   | 1.8 | 18        |
| 89 | Surface electronic properties on boron doped (111) CVD homoepitaxial diamond films after oxidation treatments. Diamond and Related Materials, 2007, 16, 831-835.   | 1.8 | 6         |
| 90 | The role of boron atoms in heavily boron-doped semiconducting homoepitaxial diamond growth – Study of surface morphology. Diamond and Related Materials, 2007, 16, 409-411.  | 1.8 | 11        |

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| 91  | Diamond and biology. <i>Journal of the Royal Society Interface</i> , 2007, 4, 439-461.   | 1.5 | 134       |
| 92  | Direct observation of two-dimensional growth at SiO <sub>2</sub> /Si(111) interface. <i>Thin Solid Films</i> , 2007, 515, 7892-7898.   | 0.8 | 16        |
| 93  | Surface conductive layers on (111) diamonds after oxygen treatments. <i>Diamond and Related Materials</i> , 2006, 15, 692-697.   | 1.8 | 20        |
| 94  | Characterization of leakage current on diamond Schottky barrier diodes using thermionic-field emission modeling. <i>Diamond and Related Materials</i> , 2006, 15, 1949-1953.     | 1.8 | 66        |
| 95  | Photo- and electrochemical bonding of DNA to single crystalline CVD diamond. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 3245-3272.         | 0.8 | 45        |
| 96  | Periodically arranged benzene-linker molecules on boron-doped single-crystalline diamond films for DNA sensing. <i>Electrochemistry Communications</i> , 2006, 8, 844-850.       | 2.3 | 49        |
| 97  | Energetics of dopant atoms in subsurface positions of diamond semiconductor. <i>Superlattices and Microstructures</i> , 2006, 40, 574-579.                                       | 1.4 | 4         |
| 98  | High-Efficiency Excitonic Emission with Deep-Ultraviolet Light from (001)-Oriented Diamond-p-n Junction. <i>Japanese Journal of Applied Physics</i> , 2006, 45, L1042-L1044.     | 0.8 | 52        |
| 99  | Diamond Surface Modifications with Diazonium Salt. <i>Materials Research Society Symposia Proceedings</i> , 2006, 956, 1.  | 0.1 | 0         |
| 100 | Utilization of Si atomic steps for Cu nanowire fabrication. <i>Science and Technology of Advanced Materials</i> , 2005, 6, 667-670.  | 2.8 | 4         |
| 101 | Selective Growth of Monoatomic Cu Rows at Step Edges on Si(111) Substrates in Ultralow-Dissolved-Oxygen Water. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L613-L615. | 0.8 | 11        |
| 102 | Selective Growth of Ag Nanowires on Si(111) Surfaces by Electroless Deposition. <i>Journal of Physical Chemistry B</i> , 2005, 109, 12655-12657.                                 | 1.2 | 12        |
| 103 | Local Dielectric Degradation of Cu-Contaminated SiO <sub>2</sub> Thin Films. <i>Solid State Phenomena</i> , 2004, 95-96, 641-646.  | 0.3 | 1         |
| 104 | Nonuniformity in Ultrathin SiO <sub>2</sub> on Si(111) Characterized by Conductive Atomic Force Microscopy. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 7861-7865.    | 0.8 | 25        |
| 105 | Leakage Current Distribution and Dielectric Breakdown of Cu-Contaminated Thin SiO <sub>2</sub> . <i>Journal of the Electrochemical Society</i> , 2004, 151, F81.                 | 1.3 | 4         |
| 106 | Fabrication of Cu nanowires along atomic step edge lines on Si(111) substrates. <i>Applied Surface Science</i> , 2004, 237, 529-532.   | 3.1 | 10        |
| 107 | Effect of SiO <sub>2</sub> Fence on Atomic Step Flow in Chemical Etching of Si Surface. <i>Japanese Journal of Applied Physics</i> , 2003, 42, L561-L563.                        | 0.8 | 9         |
| 108 | Topography Change Due to Multilayer Oxidation at SiO <sub>2</sub> /Si(111) Interfaces. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 1903-1906.                         | 0.8 | 13        |

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| 109 | Selective Growth of Cu Nanowires on Si(111) Substrates. Japanese Journal of Applied Physics, 2003, 42, L1210-L1212.  | 0.8 | 17        |
| 110 | Leakage Current Distribution of Cu-Contaminated Thin SiO <sub>2</sub> . Japanese Journal of Applied Physics, 2003, 42, L160-L162.  | 0.8 | 11        |
| 111 | Atomic Topography Change of SiO <sub>2</sub> /Si Interfaces during Thermal Oxidation. Japanese Journal of Applied Physics, 2002, 41, L505-L508.                                      | 0.8 | 7         |
| 112 | Leakage current distribution in ultrathin oxide on silicon surface with step/terrace structures. Thin Solid Films, 2002, 414, 56-62.   | 0.8 | 4         |
| 113 | SiO <sub>2</sub> Surface and SiO <sub>2</sub> /Si Interface Topography Change by Thermal Oxidation. Japanese Journal of Applied Physics, 2001, 40, 4763-4768.                        | 0.8 | 18        |
| 114 | Nanometer Scale Height Standard Using Atomically Controlled Diamond Surface. Applied Physics Express, 0, 2, 055001.  | 1.1 | 20        |
| 115 | Microscopic Evaluation of Al <sub>2</sub> O <sub>3</sub> /p-Type Diamond (111) Interfaces Using Scanning Nonlinear Dielectric Microscopy. Materials Science Forum, 0, 1062, 298-303. | 0.3 | 1         |