

Shota Nunomura

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

56

papers

1,652

citations

22

h-index

40

g-index

59

ext. papers

1,794

ext. citations

3.6

avg, IF

4.6

L-index

| # | Paper | IF | Citations |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 56 | Ion-induced interface defects in a-Si:H/c-Si heterojunction: possible roles and kinetics of hot mobile hydrogens. <i>Japanese Journal of Applied Physics</i> , 2022 , 61, 056003 | 1.4 | 0 |
| 55 | Passivating antireflection coating of crystalline silicon using i/n a-Si:H/SiN trilayer. <i>Journal of Physics and Chemistry of Solids</i> , 2021 , 156, 110127 | 3.9 | 2 |
| 54 | Role of silicon surface, polished <100> and <111> or textured, on the efficiency of double-sided TOPCon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 1001-1011 | 6.8 | 7 |
| 53 | Double-sided TOPCon solar cells on textured wafer with ALD SiO _x layer. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 207, 110357 | 6.4 | 19 |
| 52 | Real-time monitoring of surface passivation of crystalline silicon during growth of amorphous and epitaxial silicon layer. <i>Journal of Applied Physics</i> , 2020 , 128, 033302 | 2.5 | 3 |
| 51 | Hydrogen-induced defects in crystalline silicon during growth of an ultrathin a-Si:H layer. <i>Japanese Journal of Applied Physics</i> , 2020 , 59, SHHE05 | 1.4 | 3 |
| 50 | Hydrogen passivation effect on p-type poly-Si/SiO _x stack for crystalline silicon solar cells 2019 , | | 2 |
| 49 | Progress and perspectives in dry processes for leading-edge manufacturing of devices: toward intelligent processes and virtual product development. <i>Japanese Journal of Applied Physics</i> , 2019 , 58, SE0804 | 1.4 | 2 |
| 48 | Progress and perspectives in dry processes for nanoscale feature fabrication: fine pattern transfer and high-aspect-ratio feature formation. <i>Japanese Journal of Applied Physics</i> , 2019 , 58, SE0802 | 1.4 | 9 |
| 47 | In-situ detection of interface defects in a-Si:H/c-Si heterojunction during plasma processing. <i>Applied Physics Express</i> , 2019 , 12, 051006 | 2.4 | 11 |
| 46 | Formation of electronic defects in crystalline silicon during hydrogen plasma treatment. <i>AIP Advances</i> , 2019 , 9, 045110 | 1.5 | 5 |
| 45 | Roles of hydrogen atoms in p-type Poly-Si/SiO _x passivation layer for crystalline silicon solar cell applications. <i>Japanese Journal of Applied Physics</i> , 2019 , 58, 050915 | 1.4 | 7 |
| 44 | Progress and perspectives in dry processes for emerging multidisciplinary applications: how can we improve our use of dry processes?. <i>Japanese Journal of Applied Physics</i> , 2019 , 58, SE0803 | 1.4 | 0 |
| 43 | Impact of silicon wafer thickness on photovoltaic performance of crystalline silicon heterojunction solar cells. <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 08RB10 | 1.4 | 15 |
| 42 | Passivation property of ultrathin SiO _x :H / a-Si:H stack layers for solar cell applications. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 185, 8-15 | 6.4 | 26 |
| 41 | Towards solar cells with black silicon texturing passivated by a-Si:H 2018 , | | 1 |
| 40 | Plasma-Induced Electronic Defects: Generation and Annihilation Kinetics in Hydrogenated Amorphous Silicon. <i>Physical Review Applied</i> , 2018 , 10, | 4.3 | 17 |

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| 39 | Impact of intrinsic amorphous silicon bilayers in silicon heterojunction solar cells. <i>Journal of Applied Physics</i> , 2018 , 124, 103102 | 2.5 | 22 |
| 38 | Hydrogen atom kinetics in capacitively coupled plasmas. <i>Plasma Sources Science and Technology</i> , 2017 , 26, 055018 | 3.5 | 10 |
| 37 | Electronic properties of ultrathin hydrogenated amorphous silicon. <i>Applied Physics Express</i> , 2017 , 10, 081401 | 2.4 | 12 |
| 36 | Impact of band tail distribution on carrier trapping in hydrogenated amorphous silicon for solar cell applications. <i>Journal of Non-Crystalline Solids</i> , 2016 , 436, 44-50 | 3.9 | 11 |
| 35 | Charge trapping in mixed organic donor-acceptor semiconductor thin films. <i>Advanced Materials</i> , 2014 , 26, 7555-60 | 2.4 | 14 |
| 34 | In-situ characterization of trapped charges in amorphous semiconductor films during plasma-enhanced chemical vapor deposition. <i>AIP Advances</i> , 2014 , 4, 097110 | 1.5 | 9 |
| 33 | In situ Photocurrent Measurements of Thin-Film Semiconductors during Plasma-Enhanced Chemical Vapor Deposition. <i>Applied Physics Express</i> , 2013 , 6, 126201 | 2.4 | 11 |
| 32 | Transient Phenomena in Plasma-Enhanced Chemical Vapor Deposition Processes of Thin-Film Silicon. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 106102 | 1.4 | 7 |
| 31 | Mie scattering enhanced near-infrared light response of thin-film silicon solar cells. <i>Applied Physics Letters</i> , 2010 , 97, 063507 | 3.4 | 38 |
| 30 | Time-dependent gas phase kinetics in a hydrogen diluted silane plasma. <i>Applied Physics Letters</i> , 2009 , 94, 071502 | 3.4 | 26 |
| 29 | Precursor flux-dependent microstructure of thin-film silicon prepared by hydrogen diluted silane discharge plasmas. <i>Journal Physics D: Applied Physics</i> , 2009 , 42, 185210 | 3 | 20 |
| 28 | Rapid transport of nano-particles having a fractional elementary charge on average in capacitively-coupled rf discharges by amplitude-modulating discharge voltage. <i>Faraday Discussions</i> , 2008 , 137, 127-38; discussion 193-204 | 3.6 | 16 |
| 27 | Nanoparticle coagulation in fractionally charged and charge fluctuating dusty plasmas. <i>Physics of Plasmas</i> , 2008 , 15, 080703 | 2.1 | 13 |
| 26 | Positive ion polymerization in hydrogen diluted silane plasmas. <i>Applied Physics Letters</i> , 2008 , 93, 231502 | 3.4 | 26 |
| 25 | Single step method to deposit Si quantum dot films using H ₂ +SiH ₄ VHF discharges and electron mobility in a Si quantum dot solar cell. <i>Surface and Coatings Technology</i> , 2007 , 201, 5468-5471 | 4.4 | 44 |
| 24 | Characterization of high-pressure capacitively coupled hydrogen plasmas. <i>Journal of Applied Physics</i> , 2007 , 102, 093306 | 2.5 | 56 |
| 23 | Gas temperature and surface heating in plasma enhanced chemical-vapour-deposition. <i>Plasma Sources Science and Technology</i> , 2006 , 15, 783-789 | 3.5 | 37 |
| 22 | In situ simple method for measuring size and density of nanoparticles in reactive plasmas. <i>Journal of Applied Physics</i> , 2006 , 99, 083302 | 2.5 | 30 |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|
| 21 | Self-diffusion in a liquid complex plasma. <i>Physical Review Letters</i> , 2006 , 96, 015003 | 7.4 | 74 |
| 20 | Wave spectra in solid and liquid complex (dusty) plasmas. <i>Physical Review Letters</i> , 2005 , 94, 045001 | 7.4 | 76 |
| 19 | Fabrication of Nanoparticle Composite Porous Films Having Ultralow Dielectric Constant. <i>Japanese Journal of Applied Physics</i> , 2005 , 44, L1509-L1511 | 1.4 | 37 |
| 18 | Heat transfer in a two-dimensional crystalline complex (dusty) plasma. <i>Physical Review Letters</i> , 2005 , 95, 025003 | 7.4 | 55 |
| 17 | Nonlinear longitudinal waves in a two-dimensional screened Coulomb crystal. <i>Physical Review E</i> , 2003 , 68, 026407 | 2.4 | 29 |
| 16 | Polarization of wave modes in a two-dimensional hexagonal lattice using a complex (dusty) plasma. <i>Physical Review E</i> , 2003 , 68, 035401 | 2.4 | 66 |
| 15 | Nonlinear compressional pulses in a 2D crystallized dusty plasma. <i>Physical Review Letters</i> , 2002 , 88, 215002 | 7.4 | 46 |
| 14 | Phonon spectrum in a plasma crystal. <i>Physical Review Letters</i> , 2002 , 89, 035001 | 7.4 | 160 |
| 13 | Dispersion relations of longitudinal and transverse waves in two-dimensional screened Coulomb crystals. <i>Physical Review E</i> , 2002 , 65, 066402 | 2.4 | 135 |
| 12 | Response to Comment on Dynamic behaviors of dust particles in the plasma sheath boundary [Phys. Plasmas 9, 1057 (2002)]. <i>Physics of Plasmas</i> , 2002 , 9, 1060-1061 | 2.1 | |
| 11 | Dynamic behaviors of dust particles in the plasma sheath boundary. <i>Physics of Plasmas</i> , 2001 , 8, 1886-1892 | 2.1 | 27 |
| 10 | Observation of Transverse Dust Lattice Wave Excited by Unstable Vertical Oscillations of Dust Particles in an Ion Sheath with Low Gas Pressure. <i>Japanese Journal of Applied Physics</i> , 2000 , 39, L551-L553 | 1.4 | 15 |
| 9 | Laser-excited mach cones in a dusty plasma crystal. <i>Physical Review E</i> , 2000 , 62, 4162-76 | 2.4 | 126 |
| 8 | Instabilities of Dust Particles Levitated in an Ion Sheath with Low Gas Pressure 2000 , 465-468 | | |
| 7 | Structural Formation and Stability of Coulomb Clouds in Medium through Low Gas Pressure Range 2000 , 337-344 | | 3 |
| 6 | Simulation on Structure and Dynamic Behavior of Dust Particles in a Direct Current Plasma-Sheath. <i>Journal of Plasma and Fusion Research</i> , 1999 , 75-CD, 234-257 | | |
| 5 | Instability of Dust Particles in a Coulomb Crystal due to Delayed Charging. <i>Physical Review Letters</i> , 1999 , 83, 1970-1973 | 7.4 | 150 |
| 4 | Particle simulation on multiple dust layers of Coulomb cloud in cathode sheath edge. <i>European Physical Journal D</i> , 1998 , 48, 239-244 | | 2 |

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|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 3 | Confinement and structure of electrostatically coupled dust clouds in a direct current plasma sheath. <i>Physics of Plasmas</i> , 1998 , 5, 3517-3523 | 2.1 | 44 |
| 2 | Observation of the Structure and its Formation Process of a New Volumetric Coulomb Cloud Composed of Different Multiple Dust Layers. <i>Japanese Journal of Applied Physics</i> , 1997 , 36, L949-L951 | 1.4 | 19 |
| 1 | Effects of Ion Flow by E _B Drift on Dust Particle Behavior in Magnetized Cylindrical Electron Cyclotron Resonance Plasmas. <i>Japanese Journal of Applied Physics</i> , 1997 , 36, 877-883 | 1.4 | 56 |