

## PEER-Reviewed Publications in Scientific Journals/Conference Proceedings/Book Chapter

### 2022-2023 (161 Reprint)

1. Morphology Induced Large Magnetic Anisotropy in Obliquely Grown Nanostructured Thin Film on Nanopatterned Substrate

ANUP KUMAR BERA, ARUN SINGH DEV, MANIK KUILA, MUKESH RAJAN, PALLAVI PANDIT, MATTHIAS SCHWARTZKOPF, STEPHAN V. ROTH, VARIMALLA R. REDDY, and DILEEP KUMAR

Applied Surface Science, 581, 152377, April 2022

2. Cross-Section of (n, 2n) Reaction for Niobium and Strontium Isotopes between 13.97 to 20.02 MeV Neutron Energies

MAYUR MEHTA, N. L. SINGH, RATANKUMAR SINGH, RAKESH CHAUHAN, RAJNIKANT MAKWANA, S. V. SURYANARAYANA, H. NAIK, P. V. SUBHASH, S. MUKHERJEE, JAN VARMUZA, KAREL KATOVSKY

Applied Radiation and Isotopes, 182, 110142, April 2022

3. Overview of Recent Experimental Results from the ADITYA-U Tokamak

R.L. TANNA, TANMAY MACWAN, J. GHOSH, K.A. JADEJA, ROHIT KUMAR, S. AICH, K.M. PATEL, HARSHITA RAJ, KAUSHLENDER SINGH, SUMAN DOLUI, ANKIT KUMAR, B.K. SHUKLA, P.K. CHATTOPADHYAY, M.N. MAKWANA, K.S. SHAH, S. GUPTA, V. BALAKRISHNAN, C.N. GUPTA, V.K. PANCHAL, PRAVEENLAL EDAPPALA, B. ARAMBHADIYA, MINSHA SHAH, PRAMILA GAUTAM, V. RAULJI, PRAVEENA SHUKLA, R. RAJPAL, U.C. NAGORA, KIRAN PATEL, NANDINI YADAVA, S. PATEL, N. RAMAIYA, M.B. CHOWDHURI, R. MANCHANDA, R. DEY, G. SHUKLA, K. SHAH, VARSHA S, J. RAVAL, S. PUROHIT, K. TAHILIANI, D. KUMAWAT, S.K. JHA, N. BISAI, P.K. ATREY, S.K. PATHAK, M.K. GUPTA, M.V. GOPALKRISHANA, B.R. DOSHI, DEEPTI SHARMA, R. SRINIVASAN, D. RAJU, CHETNA CHAUHAN, Y.C. SAXENA, ABHIJIT SEN, R. PAL and S. CHATURVEDI

Nuclear Fusion, 62, 042017, April 2022

4. Spatially Selective Nanoplasmonic Response in Ag Embedded GLAD TiO<sub>2</sub> Nanocomposite Thin Films

RAJNARAYAN DE, S. MAIDUL HAQUE, M. K. SIKDAR, P. K. SAHOO, S. KESARI, CH KISHAN SINGH, S. STINE, M. RANJAN, R. RAO, K. DIVAKAR RAO

Optical Materials, 126, 112122, April 2022

5. Estimation of Vacuum Vessel Time-Constant in ADITYA-U Tokamak

ROHIT KUMAR, S. K. JHA, SUMAN AICH, TANMAY MACWAN, DEVILAL KUMAWAT, R. L. TANNA, J. GHOSH, KAUSHAL PATEL, KUMARPAL JADEJA

Fusion Engineering and Design, 177, 113055, April 2022

6. Operating a Full Tungsten Actively Cooled Tokamak: Overview of WEST First Phase of Operation

J. BUCALOSSO, R. DANIEL et. al

Nuclear Fusion, 62, 042007, April 2022

7. Laser Intensity Profile Based Terahertz Field Enhancement from a Mixture of Nano-Particles Embedded in a Gas

P. VARSHNEY, A. P. SINGH, M. KUNDU, K. GOPAL

Optical and Quantum Electronics, 54, 222, April 2022

8. Physics Studies of ADITYA & ADITYA-U Tokamak Plasmas Using Spectroscopic Diagnostics  
R. MANCHANDA, M. B. CHOWDHURI, J. GHOSH, N. RAMAIYA, N. YADAVA , S. PATEL, G. SHUKLA, K. SHAH, R. DEY, K. A. JADEJA, K. M. PATEL, R. L. TANNA, S. K. PATHAK, B. V. NAIR, C. N. GUPTA and ADITYA-U TEAM  
Nuclear Fusion, 62, 042014, April 2022
9. Study of Solid Hydrogen Pellet Speed in a Gas Gun–Type Injector  
J. MISHRA, R. GANGRADEY, P. NAYAK, S. MUKHERJEE  
Fusion Science and Technology, 78, 211, April 2022
10. Numerical Simulation of a Bi-Directional Plasma Thruster for Space Debris Removal  
VINOD SAINI and RAJARAMAN GANESH  
Journal of Plasma Physics, 88, 905880203, April 2022
11. On the Effects of H<sub>2</sub> and Ar on Dual Layer Formed by Plasma Nitrocarburizing on Austenitic Stainless Steels  
JEETA SAH, ALPHONSA JOSEPH, GHANSHYAM JHALA, SUBROTO MUKHERJEE  
Journal of Materials Engineering and Performance, 31, 2664, April 2022
12. Data Driven Discovery of a Model Equation for Anode-Glow Oscillations in a Low Pressure Plasma Discharge  
BHUMIKA THAKUR, ABHIJIT SEN and NEERAJ CHAUBEY  
Physics of Plasmas, 29, 042112, April 2022 (Erratum: Physics of Plasmas, 29, 069901, June 2022)
13. Progress in ITER ECE Diagnostic Design and Integration  
Y. LIU, V.S. UDINTSEV, S. DANANI, G. PARAISO, G. TAYLOR, M.E. AUSTIN, A. BASILE, J.H. BENO, B. BUNKOWSKI, R. FEDER, T. GIACOMIN, J. GUIRAO, S. HOUSHMANDYAR, H. HUANG, A.E. HUBBARD, S. HUGHES, S. JHA, A. KHODAK, R. KUMAR, S. KUMAR, V. KUMAR, P. MAQUET, C. NAZARE, H. NEILSON, A. OUROUA, S. PAK, H.K.B. PANDYA, C. PENNEY, P.E. PHILLIPS, S. PISH, J. POISSY, W.L. ROWAN, A. SAXENA, M. SCHNEIDER, S.M. STRANK, S. THOMAS, G. VAYAKIS, F.L. WELBROECK, M.J. WALSH and L. WORTH  
Journal of Instrumentation, 17, C04019, April 2022
14. Phase Locked Loop System with SIW-Based Bandpass Filter for D-Band Microwave Interferometer  
ALPESH VALA, AMIT PATEL, BHARGAV PATEL, ABHISHEK SINHA, UMESH NAGORA, SURYA PATHAK  
JITENDRA CHAUDHARI and HIREN MEWADA  
IETE Journal of Research, 68, 255, April 2022
15. DIII-D Research Advancing the Physics Basis for Optimizing the Tokamak Approach to Fusion Energy  
M. E. FENSTERMACHER, A. CHATTOPADHYAY, R. MANCHANDA, et. al.  
Nuclear Fusion, 62, 42024, April 2022
16. Dust-Ion Acoustic Solitary Waves in a Collisionless Magnetized Five Components Plasma  
PALTU HALDER, ANUP BANDYOPADHYAY, SANDIP DALUI and SANKIRTAN SARDAR  
Journal of Physical Sciences: Zeitschrift fur Naturforschung A, 77, 659, April 2022

17. Effect of Directional Nature of Antenna and Magnetic Field Strength on Optimal Power Absorption in a Helicon Discharge

N. SHARMA, M. CHAKRABORTY, S. BORTHAKUR, N. K. NEOG and M. BANDYOPADHYAY  
Plasma Physics Reports, 48, 395, April 2022

18. Numerical Evaluation for Spacer Vane Effects on Flow and Heat Transfer of Water at Supercritical Pressure in Annular Channel

SATISH KUMAR DHURANDHAR, S. L. SINHA and SHASHI KANT VERMA  
Nuclear Science and Engineering, 196, 600, May 2022

19. Design and Development of Dielectric Barrier Discharge Setup to Form Plasma-Activated Water and Optimization of Process Parameters

VIKAS RATHORE, CHIRAYU PATIL, ADAM SANGHARIYAT and SUDHIR KUMAR NEMA  
European Physical Journal D, 76, 77, May 2022

20. Mode Conversion and Laser Energy Absorption by Plasma under an Inhomogeneous External Magnetic Field

SRIMANTA MAITY, LAXMAN PRASAD GOSWAMI, AYUSHI VASHISTHA, DEVSHREE MANDAL and AMITA DAS  
Physical Review E, 105, 055209, May 2022

21. Equilibrium Magnetic Field Requirements during Plasma Initiation and Current Ramp-Up Phase in ADITYA/ADITYA-U Tokamak Discharges

RAKESH L. TANNA, JOYDEEP GHOSH, CHETNARAYAN GUPTA, BALAKRISHNAN V. NAIR, SHIVAM GUPTA, MOTI N. MAKWANA, KUNAL SHAH, SUPRIYA NAIR, ROHIT KUMAR, SUMAN AICH, KUMARPALSINH A. JADEJA, KAUSHAL M. PATEL, TANMAY MACWAN, KAUSHLINDER SINGH, SUMAN DOLUI, ANKIT KUMAR, CHETNA CHAUHAN, RAJENDRA P. BHATTACHARYAY, PRABAL K. CHATTOPADHYAY, MALAY BIKAS CHOWDHURI, RANJANA MANCHANDA, YOGESH CHANDRA SAXENA and ADITYA-U TEAM  
Plasma and Fusion Research, 17, 2402046, May 2022

22. Systematic Study of the  $(n, 2n)$  Reaction Cross Section for  $^{121}\text{Sb}$  and  $^{123}\text{Sb}$  Isotopes

RATANKUMAR SINGH, N.L. SINGH, RAKESH CHAUHAN, MAYUR MEHTA, SARASWATULA SURYANARAYAN, RAJNIKANT MAKWANA, B K NAYAK, H. NAIK, TARAK NATH NAG and KAREL KATOVSKY  
Chinese Physics C, 46, 054002, May 2022

23. Current Drive Experiments in SST1 Tokamak with Lower Hybrid Waves

P. K. SHARMA, D. RAJU, S. K. PATHAK, R. SRINIVASAN, K. K. AMBULKAR, P. R. PARMAR, C.G. VIRANI, J. KUMAR, S. SHARMA, C. SINGH, A. L. THAKUR, V. L. TANNA, U. PRASAD, Z. KHAN, D. C. RAVAL, C. N. GUPTA, B. KRISHNAN, S. NAIR, D. K. SHARMA, B. DOSHI, M. VASANI, K. MAHAJAN, R. RAJPAL, R. MANCHANDA, K. ASUDANI, M. K. GUPTA, M. B. CHOWDHURI, R. L. TANNA, SST-1 and DIAGNOSTIC TEAMS  
Nuclear Fusion, 62, 056020, May 2022

24. Forster Resonance Energy Transfer between Fluorescent Organic Semiconductors: Poly (9, 9-Dioctylfluorene-Alt-Benzothiadiazole) and 6, 13-Bis (Triisopropylsilylethynyl) Pentacene

HEMLATA BISHT, ABHINAV PRATAP SINGH, HEM CHANDRA JOSHI, SATYABRATA JIT, and HIRDYESH MISHRA

The Journal of Physical Chemistry B, 126, 3931, May 2022

25. A Study on the Influence of External Magnetic Field on Nitrogen RF Discharge using Langmuir Probe and OES Methods

ATRI MUKHERJEE, NARAYAN SHARMA, M CHAKRABORTY and PABITRA K SAHA

Physica Scripta, 97, 055601, May 2022

26. Design and Analysis of a Plasma Chamber for Thermal Processing Applications

DEEPAK SHARMA, ATIK MISTRY, VADIVEL MURUGAN PALANICHAMY, ADAM SANGHARIYAT, HARDIK MISTRY, PARITOSH CHAUDHURI, SHASHANK CHATURVEDI and SUDHIR K. NEMA

Plasma and Fusion Research, 17, 2406051, May 2022

27. Emergence of Directed Motion in a 2D System of Yukawa Particles on 1D Ratchet

ANSHIKA CHUGH, RAJARAMAN GANESH

Physica A: Statistical Mechanics and its Applications, 593, 126913, May 2022

28. Oxygen Plasma for Prevention of Biofilm Formation on Silicone Catheter Surfaces: Influence of Plasma Exposure Time

PURVI DAVE, C. BALASUBRAMANIAN, SUKRITI HANS, CHIRAYU PATIL and S. K. NEMA

Plasma Chemistry and Plasma Processing, 42, 815, May 2022

29. Comparative Study of LIBS Signal for Single and Colliding Plasma Plumes in a Variable Magnetic Field

PRAVIN KUMAR TIWARI, NARAYAN BEHERA, R.K. SINGH, H.C. JOSHI

Spectrochimica Acta Part B: Atomic Spectroscopy, 191, 106411, May 2022

30. On the Delayed Emission from a Laser-Produced Aluminium Plasma under an Argon Environment

GARIMA ARORA, JINTO THOMAS, and H. C. JOSHI

Journal of Analytical Atomic Spectrometry, 37, 1119, May 2022

31. Wave Studies using Triple Langmuir Probe in Transient Plasma

S. BORTHAKUR, N. K. NEOG and T. K. BORTHAKUR

Plasma Physics Reports, 48, 560, May 2022

32. Neutronic Analysis of Indian Helium-Cooled Solid Breeder Tritium Breeding Module for Testing in ITER

H L SWAMI, DEEPAK SHARMA, C DANANI, P CHAUDHARI, R SRINIVASAN and RAJESH KUMAR

Plasma Science and Technology, 24, 065601, June 2022

33. Real-Time Density Feedback Control in ADITYA-U Tokamak

KIRAN PATEL, UMESH NAGORA, H.C. JOSHI, SURYA PATHAK, K.A. JADEJA, KAUSHAL PATEL, CHETAN VIRANI, ANKIT PATEL, R. L. TANNA, ROHIT KUMAR, SUMAN AICH and JOYDEEP GHOSH

Journal of Instrumentation, 17, 06004, June 2022

34. Long Time Fate of Two-Dimensional Incompressible High Reynolds Number Navier-Stokes Turbulence: A Quantitative Comparison between Theory and Simulation

SHISHIR BISWAS and RAJARAMAN GANESH

Physics of Fluids, 34, 065101, June 2022

35. Design and Development of a Liquid Nitrogen Cooled Test Cryopump for Application in Steady-State Superconducting Tokamak-1  
RANJANA GANGRADEY, SAMIRAN S. MUKHERJEE, VISHAL GUPTA, PARESH PANCHAL, PRATIK NAYAK, JYOTI S. MISHRA, AVIJIT DEWASI, SHASHI KANT VERMA  
Vacuum, 200, 110986, June 2022
36. Equilibrium Properties of Inhomogeneous Partially-Magnetized Plasma Containing Negative Ions  
PAWANDEEP SINGH, SWATI and SHANTANU KUMAR KARKARI  
Journal of Physics D: Applied Physics, 55, 235201, June 2022
37. IDP Detection in Earth Environment: Prediction of Plasma Capture Efficiency and Detector Response to High-Energy Particles  
J.P. PABARI, S. NAMBIAR, R.K. SINGH, ANIL BHARDWAJ, K.A. LAD, K. ACHARYYA, J.M. JAKHARIYA, S. JITARWAL, RASHMI, V. SHEEL  
Planetary and Space Science, 215, 105452, June 2022
38. Laser Ablation Fabrication of a p-NiO/n-Si Heterojunction for Broadband and Self-Powered UV-Visible-NIR Photodetection  
SAVITA CHAOU DHARY, AVIJIT DEWASI, RAM PRAKASH S, VIPUL RASTOGI, RUI N PEREIRA, ALESSANDRO SINOPOLI, BRAHIM AISSA and ANIRBAN MITRA  
Nanotechnology, 33, 255202, June 2022
39. Understanding the Surface Wave Characteristics Using 2D Particle-In-Cell Simulation and Deep Neural Network  
RINKU MISHRA, S. ADHIKARI, RUPAK MUKHERJEE and B. J. SAIKIA  
Physics of Plasmas, 29, 062104, June 2022
40. Investigating the Effects of Electron Bounce-Cyclotron Resonance on Plasma Dynamics in Capacitive Discharges Operated in the Presence of a Weak Transverse Magnetic Field  
SARVESHWAR SHARMA, SANKET PATIL, SUDIP SENGUPTA, ABHIJIT SEN, ALEXANDER KHRABROV and IGOR KAGANOVICH  
Physics of Plasmas, 29, 063501, June 2022
41. Evaluation of Three Methods of Static Contact Angle Measurements for TiO<sub>2</sub> Nanofluid Droplets during Evaporation  
SYLWIA WCISLIK and SAYANTAN MUKHERJEE  
Physics of Fluids, 34, 062006, June 2022
42. Activation of Water in the Downstream of Low-Pressure Ammonia Plasma Discharge  
VIKAS RATHORE, VYOM DESAI, NIRAV I. JAMNAPARA and SUDHIR KUMAR NEMA  
Plasma Research Express, 4, 025008, June 2022
43. Numerical Study on the Effect of Plasma Density on Runaway Electron Suppression in the ADITYA-U Tokamak  
ANSH PATEL, SANTOSH P. PANDYA, TANMAY M. MACWAN, UMESHKUMAR C. NAGORA, JAYESH V. RAVAL, K. A. JADEJA, SAMEER KUMAR JHA, ROHIT KUMAR, SUMAN AICH, SUMAN DOLUI,

KAUSHLINDER SINGH, K. M. PATEL, KUMUDNI TAHILIANI, SURYA KUMAR PATHAK, RAKESH L. TANNA, JOYDEEP GHOSH, MANOJ KUMAR, and ADITYA-U TEAM  
IEEE Transactions on Plasma Science, 50, 1445, June 2022

44. On Suitable Experiments for Demonstrating the Feasibility of the Beam-Driven Plasma Neutraliser for Neutral Beam Injectors for Fusion Reactors

G. STARNELLA, C. HOPF and P. N. MAYA  
Nuclear Fusion, 62, 066038, June 2022

45. Estimation of Production Cross-Sections, Transmutation and Gas Generation from Radionuclides (A ~50-60) in Fusion Environment

JYOTI PANDEY, BHAWNA PANDEY, P. V. SUBHASH, PRITI KANTH, MAYANK RAJPUT, S. VALA, RAJNIKANT MAKWANA, S. V. SURYANARAYANA, H. M. AGRAWAL  
Applied Radiation and Isotopes, 184, 110163, June 2022

46. Development of Resistive-Ink Based Planar and Conformal Metasurfaces for RCS Reduction

PRIYANKA TIWARI, SURYA KUMAR PATHAK, and VARSHA SIJU  
IEEE Access, 10, 61472, June 2022

47. Validation of 3-D Non-Isothermal CFD Simulation with Experimental Results for Single-Screw Hydrogen Extruder

VISHAL GUPTA, RANJANA GANGRADEY, SAMIRAN S. MUKHERJEE, SHASHIKANT VERMA, AVIJIT DEWASI, J. MISHRA, PARESH PANCHAL, PRATIK A. NAYAK  
Cryogenics, 124, 103471, June 2022

48. Sensing a Change in Size of a Circular Tokamak Plasma using a Single Magnetic Probe: A Theoretical Approach

SUMAN AICH, JAHAN THAKKAR, JOYDEEP GHOSH  
Plasma and Fusion Research, 17, 2403055, June 2022

49. Conceptual Design and Analysis of Prototype Center Stack for Spherical Tokamak Based Technologies Development

ADITYA KUMAR VERMA, RANJITH KUMAR SANTHARAM, PRASADA RAO PEDADA, SHIJU SAM, YELLAMRAJU S.S. SRINIVAS, RAJENDRA KUMAR ELLAPPAN  
Plasma and Fusion Research, 17, 2405074, June 2022

50. Design, Simulation, Fabrication and Testing of LIM for EML

P PRASADA RAO, ARVIND KUMAR, ANANYA KUNDU, ANKUR JAISWAL, VILAS CHAUDHARI, SIDIBOMMA RAMBABU, Y.S.S. SRINIVAS, and E. RAJENDRAKUMAR  
Sadhana - Academy Proceedings in Engineering Sciences, 47, 77, June 2022

51. The Role of Different Plasma Forming Gases on Chemical Species Formed in Plasma Activated Water (PAW) and their Effect on its Properties

VIKAS RATHORE and SUDHIR KUMAR NEMA  
Physica Scripta, 97, 065003, June 2022

52. Vibrational Temperature Estimation of Nitrogen Molecules in Radio-Frequency (RF) Produced Plasma

NANDINI YADAVA, SACHIN S. CHOUHAN, AMULYA SANYASI, UTTAM SHARMA, JAYASHREE SHARMA, MALAY B. CHOWDHURI, JOYDEEP GHOSH and ANKUR PANDYA

Plasma and Fusion Research, 17, 2401095, June 2022

53. Measurement of Plasma Stream Parameters by Triple Probe in a Pulsed Plasma Accelerator

SUMIT SINGHA, AZMIRAH AHMED, SURAMONI BORTHAKUR, NIROD KUMAR NEOG, TRIDIP KUMAR BORTHAKUR

IEEE Transactions on Plasma Science, 50, 1440, June 2022

54. Formation of Nonlinear Stationary Structures in Ionospheric Plasma

GOBINDA MANNA, SUMAN DEY, JYOTIRMOY GOSWAMI, SWARNIV CHANDRA, JIT SARKAR, AMRITA GUPTA

IEEE Transactions on Plasma Science, 50, 1464, June 2022

55. Deuterium Ion Irradiation Impact on the Current-Carrying Capacity of DI-BSCCO Superconducting Tape

M. RAJPUT, H.L. SWAMI, R. KUMAR, A. BANO, S. VALA, M. ABHANGI, UPENDRA PRASAD, RAJESH KUMAR, R. SRINIVASAN

Nuclear Engineering and Technology, 54, 2586, July 2022

56. Laser Cluster Interaction in Ambient Magnetic Fields for Accelerating Electrons in Two Stages without External Injection

KALYANI SWAIN, SAGAR SEKHAR MAHALIK and MRITYUNJAY KUNDU

Scientific Reports, 12, 11256, July 2022

57. Laser Welded Lip Seal for UHV Class Fusion Vessels - A Methodical Study

ASHISH YADAV, JAYDEEP JOSHI, ARUN CHAKRABORTY, HARSHAD NATU

Fusion Engineering and Design, 180, 113163, July 2022

58. Performance of Etched Silica FBG for Simultaneous Strain Temperature Measurement

KOUSTAV DEY, B. RAMESH and SOURABH ROY

Silicon, 14, 4349, July 2022

59. Fluorescence Spectroscopy Based Characterisation Method for Aggregation Behaviour of Rhodamine B (RhB) In Water, Ethanol, and Propanol

SEIKH MUSTAFA RADIUL, JUGAL CHOWDHURY, ANGANA GOSWAMI and SIMANTA HAZARIKA

Laser Physics, 32, 075602, July 2022

60. Silanized Halloysite Nanotubes as 'Nano-Platform' for the Complexation and Removal of Fe (II) and Fe (III) Ions from Aqueous Environment

GAURAV PANDEY, MAITHRI THARMAVARAM, GARGI PHADKE, DEEPAK RAWTANI, MUKESH RANJAN, K. P. SOORAJ

Separation and Purification Technology, 293, 121141, July 2022

61. Plasma Asymmetry and Electron and Ion Energy Distribution Function in Capacitive Discharges Excited By Tailored Waveforms

SARVESHWAR SHARMA, NISHANT SIRSE, ANIMESH KULEY and MILES M TURNER

Journal of Physics D: Applied Physics, 55, 275202, July 2022

62. Anomalous Time of Flight Behavior of Fast Ions in Laser Produced Aluminum Plasma

GARIMA ARORA, JINTO THOMAS and HEM CHANDRA JOSHI

Physics of Plasmas, 29, 072101, July 2022

63. Modelling and Experimental Investigations of Composition-Dependent Heat and Mass Transfer during Cu–Ni Alloy Nanoparticle Synthesis in a Transferred Arc Helium Plasma

G D DHAMALE, SUBRAT DAS, ANTHONY B MURPHY, SATYA P R KANDADA, C BALASUBRAMANIAN and S GHORUI

Journal of Physics D: Applied Physics, 55, 375203, July 2022

64. Dynamics of Nanoscale Triangular Features on Ge Surfaces

SUKRITI HANS, BASANTA KUMAR PARIDA, VIVEK PACHCHIGAR, SEBIN AUGUSTINE, SOORAJ K P and MUKESH RANJAN

Nanotechnology, 33, 405301, July 2022

65. Exploring the Superhydrophilicity of Nanosecond Laser Textured Silicon: A Raman Analysis

RUDRASHISH PANDA, JINTO THOMAS, and HEM CHANDRA JOSHI

Applied Optics, 61, 6770, August 2022

66. Wave Breaking Limit in Arbitrary Mass Ratio Warm Plasmas

ASHISH ADAK, NIDHI RATHEE, SUDIP SENGUPTA

Contributions to Plasma Physics, 62, e202100220, August 2022

67. Development of Fast Steerable Launcher for ECRH System

HARDIK MISTRY, DHARMESH PUROHIT, HARSHIDA PATEL, JATIN PATEL, K.G. PARMAR, DILIP RAVAL, MANOJ KUMAR GUPTA, B.K. SHUKLA

Fusion Engineering and Design, 181, 113210, August 2022

68. Performance Testing of the Liquid Nitrogen Cooled Sorption Cryopump for Application in SST-1 Tokamak

VISHAL GUPTA, RANJANA GANGRADEY, SAMIRAN S. MUKHERJEE, JYOTI SHANKARMISHRA, PRATIK A.NAYAK, PARESH PANCHAL, VIPUL L.TANNA, YUVAKIRAN PARAVASTU, DILIP C.RAVAL, ZIAUDDIN KHAN, SIJU GEORGE,

ATUL GARG, LN SRIKANTH, AVIJIT DEWASI, SHASHI KANTVERMA, ROHAN DUTTA and HEMANG AGRAVAT

Fusion Engineering and Design, 181, 113212, August 2022

69. Numerical Estimation of Droplet Motion on Linear Wettability Gradient Surface in Microgravity Environment

VISHAKHA BAGHEL, MUKESH RANJANA

Materials Today Communications, 32, 103916, August 2022



70. Defect Engineered Blue Photoluminescence in ZnO:Al/TiO<sub>2</sub> Heterostructures  
C. P. SAINI, S. BHOWMICK, A. BARMAN, N. KUMAR, A. DAS, S. A. KHAN, A. CLAVERIE, D. KANJILAL, R. N. MAHATO, K. SINGH, and A. KANJILAL  
Journal of Applied Physics, 132, 065302, August 2022
71. Edge Biasing and Its Impact on the Edge and SOL Turbulence  
VIJAY SHANKAR, NIRMAL BISAI, SHRISH RAJ and ABHIJIT SEN  
Nuclear Fusion, 62, 086030, August 2022
72. Self-Sustained Non-Equilibrium Co-Existence of Fluid and Solid States in A Strongly Coupled Complex Plasma System  
M. G. HARIPRASAD, P. BANDYOPADHYAY, V. S. NIKOLAEV, D. A. KOLOTINSKII, S. ARUMUGAM, G. ARORA, S. SINGH, A. SEN and A. V. TIMOFEEV  
Scientific Reports, 12, 13882, August 2022
73. Enhancing Dropwise Condensation of Vapor from Moist Air over a Copper Substrate by Temperature-Controlled Chemical Etching  
PUNJ LATA SINGH, BASANT SINGH SIKARWAR, MUKESH RANJAN, K. MURALIDHAR  
Thermal Science and Engineering Progress, 34, 101403, September 2022
74. Fabrication and Characterization of BSCCO-2223 Tape Compact Coils  
UPENDRA PRASAD, PIYUSH RAJ, ANEES BANO, ARUN PANCHAL, DEVEN KANABAR, R. SRINIVASAN  
IEEE Transactions on Applied Superconductivity, 32, 4605505, September 2022
75. Hydrophobic to Super hydrophobic and Hydrophilic Transitions of Ar Plasma-Nanostructured PTFE Surfaces  
VIVEK PACHCHIGAR, UMESH K. GAUR, AMRUTHA T. V., SOORAJ K. P, SUKRITI HANS, SANJEEV K. SRIVASTAVA, MUKESH RANJAN  
Plasma Processes and Polymers, 19, 2200037, September 2022
76. Design, Development and Characterization of Resistive Arm Based Planar and Conformal Metasurfaces for RCS Reduction  
PRIYANKA TIWARI, SURYA KUMAR PATHAK and VARSHA SIJU  
Scientific Reports, 12, 14992, September 2022
77. Thermo-Physical Properties and Heat Transfer Potential of Novel Silica-Ethylene Glycol Mono Nanofluid: Experiments and Multi-Layer Perceptron (MLP) Modelling  
S. MUKHERJEE, P.C. MISHRA, N. ALI, N.F. ALJUWAYHEL, S.A. EBRAHIM, P. CHAUDHURI  
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 648, 129412, September 2022
78. Square Lattice Formation in a Monodisperse Complex Plasma  
SWARNIMA SINGH, P. BANDYOPADHYAY, KRISHAN KUMAR and A. SEN  
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