

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

2016-2017 (214 Reprints)

1. Thermal-Hydraulic Characteristics and Performance of 3D Straight Channel Based Printed Circuit Heat Exchanger
A.M. ANEESH, ATUL SHARMA, ATUL SRIVASTAVA, K.N. VYAS and PARITOSH CHAUDHURI
[Applied Thermal Engineering, 98, 474, 2016](#)
2. Growth and Structural Determination of He Bubbles in Iron/Chromium Alloys using Molecular Dynamics Simulations
ABHISHEK, M. WARRIER, R. GANESH, A. CARO
[Journal of Nuclear Materials, 472, 82, 2016](#)
3. 0-D Modeling of SST-1 Plasma Break-Down & Start-Up using ECRH Assisted Pre-Ionization
AVEG KUMAR, SUBRATA PRADHAN
[Fusion Engineering and Design, 105, 22, 2016](#)
4. Nonlinearly Coupled Dynamics of Irregularities in the Equatorial Electrojet
J.K. ATUL, S. SARKAR, S.K. SINGH
[Physics Letters A, 380, 1446, 2016](#)
5. Experimental Study for Comparison of H₂ and Ar–H₂ Gas Mixture Glow Discharge Wall Conditioning in ADITYA Tokamak
KUMARPALSINH. A. JADEJA, KAUSHAL M. PATEL, RAKESH L. TANNA, DEEPAK SANGWAN, KAUSHIK S. ACHARYA, NILESH D. PATEL, SHAILESH B. BHATT, RANJANA MANCHANDA, JOYDEEP GHOSH, and ADITYA TEAM
[IEEE Transactions on Plasma Science, 44, 722, 2016](#)
6. GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes
B. P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review Letters, 116, 131102, 2016](#)
7. Origin and Evolution of Spontaneous Rotation in Plasma under Different Magnetic Field Geometries in Tokamak QUEST
KISHORE MISHRA, H. ZUSHI, H. IDEI, T. ONCHI, M. HASEGAWA, and K. HANADA
[IEEE Transactions on Plasma Science, 44, 441, 2016](#)
8. Thermal-Hydraulic Analysis of ITER Component Cooling Water System Loop 2B

BIN GUO, GIOVANNI DELL'ORCO, TEODOROS LILIANA, PLOYHAR STEVE, JUN TAO, PENG FU, LEI YANG, AJITH KUMAR, DINESH GUPTA, NIRAV PATELKUMAR, and MAHESH JADHAV

[Journal of Fusion Energy, 35, 335, 2016](#)

9. GW150914: The Advanced LIGO Detectors in the Era of First Discoveries
B.P. ABBOTT, G. GAUR, M.K. GUPTA, Z. KHAN, A.K. SRIVASTAVA, et al (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review Letters, 116, 131103, 2016](#)
10. A Comparative Study of Sheath Potential Profile Measurements with Laser-Heated and Current-Heated Emissive Probes
VARA PRASAD KELLA, PAYAL MEHTA, A. SARMA, J. GHOSH and P. K. CHATTOPADHYAY
[Review of Scientific Instruments, 87, 043508, 2016](#)
11. Observation of Quasi-Coherent Edge Fluctuations in Ohmic Plasmas on National Spherical Torus Experiment
SANTANU BANERJEE, A. DIALLO and S. J. ZWEBEN
[Physics of Plasmas, 23, 044502, 2016](#)
12. Time Resolved Interferometric Study of the Plasma Plume Induced Shock Wave in Confined Geometry: Two-Dimensional Mapping of the Ambient and Plasma Density
KAUSHIK CHOUDHURY, R. K. SINGH, SURYA NARAYAN, ATUL SRIVASTAVA and AJAI KUMAR
[Physics of Plasmas, 23, 042108, 2016](#)
13. Experimental Observation of Precursor Solitons in Flowing Complex Plasma
SURABHI JAISWAL, P. BANDYOPADHYAY and A. SEN
[Physical Review E, 93, 041201, 2016](#)
14. Analysis of Defects in Externally Driven Dust-Density Wavefronts in Cogenerated Dusty Plasma Using the Time-Resolved Hilbert–Huang Transform
SANJIB SARKAR, CHIRANJIB BARMAN, MALAY MONDAL, M BOSE and S MUKHERJEE
[Journal of Physics D: Applied Physics, 49, 205201, 2016](#)
15. Effect of Mass and Density of Ambient Gas on the Interaction of Laser-Blow-Off Plasma Plumes Propagating in Close Proximity
BHUPESH KUMAR, R. K. SINGH, and AJAI KUMAR
[Physics of Plasmas, 23, 043517, 2016](#)

16. Study on the Effect of Hydrogen Addition on the Variation of Plasma Parameters of Argon-Oxygen Magnetron Glow Discharge for Synthesis of TiO₂ Films
PARTHA SAIKIA, BIPUL KUMAR SAIKIA, and HEMAN BHUYAN
[AIP Advances, 6, 045206, 2016](#)
17. Computational and Experimental Investigation of Steady State and Transient Characteristics of Molten Salt Natural Circulation Loop
JAYARAJ YALLAPPA KUDARIYAWAR, ABHISHEK KUMAR SRIVASTAVA, ABHIJEET MOHAN VAIDYA, NARESH KUMAR MAHESHWARI, and POLEPALLE SATYAMURTHY
[Applied Thermal Engineering, 99, 560, 2016](#)
18. Optimum Multiscale Decomposition in NSCT-Based Single Image Super Resolution
A.J. SHAH and S.B. GUPTA
[Imaging Science Journal, 64, 3, 140, 2016](#)
19. Development of a Plasma Assisted ITER Level Controlled Heat Source and Observation of Novel Micro/Nanostructures Produced Upon Exposure of Tungsten Targets
N. AOMOA, TRINAYAN SARMAH, PUSPALATA SAH, P. CHAUDHURI, S. KHIRWARKER, J. GHOSH, B. SATPATI, M. KAKATI, G. DE TEMMERMAN
[Fusion Engineering and Design, 106, 63, 2016](#)
20. Investigation of Brazing of Ba(Zn_{0.33}Ta_{0.67})O₃ Ceramic with Ti6Al4V Alloy
SURESH BEERA, SWATHI MANIVANNAN, AMIT KUMAR SINGH, P.K. SHARMA, G. MADHUSUDAN REDDY, DIBAKAR DAS
[Ceramics International, 42, 8072, 2016](#)
21. Tests of General Relativity with GW150914
B.P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA, et al. (LIGO Scientific and Virgo Collaborations)
[Physical Review Letters, 116, 221101, 2016](#)
22. Sub-Monolayer Growth of Ag on Flat and Nanorippled SiO₂ Surfaces
MUKUL BHATNAGAR, MUKESH RANJAN, KENNY JOLLEY, ROGER SMITH and SUBROTO MUKHERJEE
[Applied Physics Letters, 108, 223101, 2016](#)
23. Transport and Trapping of Dust Particles in a Potential Well Created by Inductively Coupled Diffused Plasmas
MANGILAL CHOUDHARY, S. MUKHERJEE, and P. BANDYOPADHYAY
[Review of Scientific Instruments, 87, 053505, 2016](#)

24. Comparative Study of Neutron Emission from a Plasma Focus Device Using Two Different Anode Shapes
N. TALUKDAR, S. BORTHAKUR, N. K. NEOG and T. K. BORTHAKUR
[Physics of Plasmas, 23, 052711, 2016](#)
25. Three-Dimensional Tomographic Imaging for Dynamic Radiation Behaviour Study Using Infrared Imaging Video Bolometers in Large Helical Device Plasma
RYUICHI SANO, BYRON J. PETERSON, MASARU TERANISHI, NAOFUMI IWAMA, MASAHIRO KOBAYASHI, KIYOFUMI MUKAI, and SHWETANG N. PANDYA
[Review of Scientific Instruments, 87, 053502, 2016](#)
26. Effect of Hydrogen Addition on the Deposition of Titanium Nitride Thin Films in Nitrogen Added Argon Magnetron Plasma
P SAIKIA, H BHUYAN, D E DIAZ-DROGUETT, F GUZMAN, S MANDL, B K SAIKIA, M FAVRE, J R MAZE, and E WYNDHAM
[Journal of Physics D: Applied Physics, 49, 225203, 2016](#)
27. Observation on Fundamental and Second Harmonic Mode ECRH Assisted Plasma Startup in SST-1 Experiments
KIRIT PATEL, and SUBRATA PRADHAN
[Fusion Engineering and Design, 106, 99, 2016](#)
28. Computational Fluid Dynamic Studies on Plasma Facing Heat Sink Concept for Fusion Tokamak Application
SANDEEP RIMZA, SAMIR KHIRWADKAR, KARUPANNA VELUSAMY
[Applied Thermal Engineering, 100, 1274, 2016](#)
29. Optimization of the ITER Cryodistribution for an Efficient Cooling of the Magnet System
H.-S. CHANG, R. MAEKAWA, A. FORGEAS, M. CLOUGH, M. CHALIFOUR, H. VAGHELA, R. BHATTACHARYA, and B. SARKAR
[IEEE Transactions on Applied Superconductivity, 26, 4203704, 2016](#)
30. Relativistic Wave-Breaking Limit of Electrostatic Waves in Cold Electron-Positron-Ion Plasmas
M. KARMAKAR, C. MAITY, N. CHAKRABARTI and S. SENGUPTA
[European Physical Journal D, 70, 144, 2016](#)
31. Vapor Bubble Formation, Forces, and Induced Vibration: A Review
MANOJ KUMAR GUPTA, DHARMENDRA S. SHARMA, and V. J. LAKHERA
[Applied Mechanics Reviews, 63, 030801, 2016](#)
32. On the Chiral Imbalance and Weibel Instabilities
AVDHESH KUMAR, JITESH R. BHATT, and P.K. KAW

[Physics Letters B, 757, 317, 2016](#)

33. A Technique to Preserve Edge Information in Single Image Super Resolution
AMISHA J. SHAH and SURYAKANT B. GUPTA
[Procedia Computer Science, 85, 100, 2016](#)
34. High-Energy Neutrino Follow-Up Search of Gravitational Wave Event GW150914 with ANTARES and IceCube
S. ADRIAN-MARTINEZ, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA, et al. (ANTARES Collaboration, IceCube Collaboration, LIGO Scientific Collaboration, and Virgo Collaboration)
[Physical Review D, 93, 122010, 2016](#)
35. Pressurized RF Cavities in Ionizing Beams
B. FREEMIRE, A. V. TOLLESTRUP, K. YONEHARA, M. CHUNG, Y. TORUN, R. P. JOHNSON, G. FLANAGAN, P. M. HANLET, M. G. COLLURA, M. R. JANA, M. LEONOVA, A. MORETTI, and T. SCHWARZ
[Physical Review Accelerators and Beams, 19, 062004, 2016](#)
36. GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review Letters, 116, 241103, 2016](#)
37. Properties of the Binary Black Hole Merger GW150914
B. P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review Letters, 116, 241102, 2016](#)
38. GW150914: First Results from the Search for Binary Black Hole Coalescence with Advanced LIGO
B. P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 93, 122003, 2016](#)
39. Observing Gravitational-Wave Transient GW150914 with Minimal Assumptions
B. P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 93, 122004, 2016](#)

40. Confinement Time of Electron Plasma Approaching Magnetic Pumping Transport Limit in Small Aspect Ratio C-Shaped Torus
LAVKESH LACHHVANI, SAMBARAN PAHARI, RAJIV GOSWAMI, MANU BAJPAI, YOGESH YEOLE and P. K. CHATTOPADHYAY
[Physics of Plasmas, 23, 062109, 2016](#)
41. Chirp-Driven Giant Phase Space Vortices
PALLAVI TRIVEDI and RAJARAMAN GANESH
[Physics of Plasmas, 23, 062112, 2016](#)
42. Plasma Heating Via Adiabatic Magnetic Compression-Expansion Cycle
K. AVINASH, M. SENGUPTA and R. GANESH
[Physics of Plasmas, 23, 062514, 2016](#)
43. Coulomb Fission of a Dusty Plasma
R. L. MERLINO, J. K. MEYER, K. AVINASH and A. SEN
[Physics of Plasmas, 23, 064506, 2016](#)
44. Design and Fabrication of a Special Purpose Winding Machine for ELM Control Coils of JET
M. GHATE, S. PRADHAN, M. PATEL, D. BHAVSAR, K. VASAVA
[IEEE Transactions on Applied Superconductivity, 26, 0602704, 2016](#)
45. Technology Developments toward ELM Coil Manufacturing Appropriate for Tokamak
S. PRADHAN, M. GHATE, P. BRAHMBHATT, N. KUMAR, K. BHOPE, D. BHAVSAR, S. UDGATA, and M. PATEL
[IEEE Transactions on Applied Superconductivity, 26, 4203104, 2016](#)
46. Fluorescence Quenching of 8-Methyl Quinolinium: An Efficient Halide Indicator Mechanism
RANJANA RAUTELA, PRIYANKA ARORA, NEERAJ KUMAR JOSHI, SANJAY PANT, HEM CHANDRA JOSHI
47. [Journal of Molecular Liquids, 218, 632, 2016](#)
48. Comparative Study of Approaches to Assess Damage in Thermally Fatigued Cu-Cr-Zr Alloy
ARYA CHATTERJEE, R. MITRA, A.K. CHAKRABORTY, C. ROTTI, K. K. RAY
[Journal of Nuclear Materials, 474, 120, 2016](#)
49. Preliminary Design of Central Solenoid of SST-2 and Demo
U. PRASAD, R. SRINIVASAN, S. PRADHAN, A. N. SHARMA, V. MENON, C. DANANI, D. GARG, N. RASTOGI, S. KHIRWADKER, R. KUMAR, P. K. KAW, S. DESHPANDE, A. DAS and D. BORA
[IEEE Transactions on Applied Superconductivity, 26, 4200904, 2016](#)

50. Search for Transient Gravitational Waves in Coincidence with Short-Duration Radio Transients during 2007-2013
B P ABBOTT, G GAUR, M K GUPTA, Z KHAN, A K SRIVASTAVA, et al.
[Physical Review D - Particles, Fields, Gravitation and Cosmology, 93, 122008, 2016](#)
51. Penning Plasma Based Simultaneous Light Emission Source of Visible and VUV Lights
G. L. VYAS, R. PRAKASH, U. N. PAL, R. MANCHANDA, and N. HALDER
[Plasma Physics Reports, 42, 601, 2016](#)
52. Shear Flow Driven Instability in an Incompressible Dusty Plasma with a Density Dependent Viscosity
S. GARAI, D. BANERJEE, M. S. JANAKI, and N. CHAKRABARTI
[Indian Journal of Physics, 90, 717, 2016](#)
53. Scattering Chamber Facility for Double-Differential Cross-Section Measurement with 14 MeV DT Neutron Generator at IPR
P M PRAJAPATI, BHAWNA PANDEY, N C GUPTA, SURESH KUMAR, B K NAYAK, A SAXENA, S V SURYANARAYANA, S JAKHAR, SUDHIRSINH VALA, C V S RAO, T K BASU
[Pramana, 86, 1269, 2016](#)
54. Fluorescence Quenching of 8-Methyl Quinolinium: An Efficient Halide Indicator Mechanism
RANJANA RAUTELA, PRIYANKA ARORA, NEERAJ KUMAR JOSHI, SANJAY PANT, and HEM CHANDRA JOSHI
[Journal of Molecular Liquids, 218, 632, 2016](#)
55. A New Approach to a Superconducting Joining Process for Carbon-Doped MgB₂ Conductor
DIPAK PATEL, MD SHAHRIAR AL HOSSAIN, MINORU MAEDA, MOHAMMED SHAHABUDDIN, EKREM YANMAZ, SUBRATA PRADHAN, MIKE TOMSIC, SEYONG CHOI, and JUNG HO KIM
[Superconductor Science and Technology, 29, 095001, 2016](#)
56. Modification on Graphite Due to Helium Ion Irradiation
N.J. DUTTA, S.R. MOHANTY and N. BUZARBARUAH
[Physics Letters A, 380, 2525, 2016](#)
57. Hydrogen Flux Measurements with Permeation Probes in Spherical Tokamak QUEST
A.KUZMIN, H. ZUSHI, I. TAKAGI, S.K. SHARMA, Y. HIROOKA, M. KOBAYASHI, M. SAKAMOTO, K. HANADA, T. ONCHI, Y. OYAMA, N. YOUSHIDA, K. NAKAMURA, A.FUJISAWA, H. IDEI, Y. NAGASHIMA, M. HASEGAWA, and K. MISHRA
[Vacuum, 129, 178, 2016](#)

58. Formation of Nanostructures on HOPG Surface in Presence of Surfactant Atom during Low Energy Ion Irradiation
M. RANJAN, P. JOSHI, and S. MUKHERJEE
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with [Materials and Atoms](#), 379, 57, 2016
59. Molecular Shear Heating and Vortex Dynamics in Thermostatted Two Dimensional Yukawa Liquids
AKANKSHA GUPTA, RAJARAMAN GANESH, and ASHWIN JOY
[Physics of Plasmas](#), 23, 073706, 2016
60. A 5 KA Pulsed Power Supply For Inductive and Plasma Loads in Large Volume Plasma Device
P. K. SRIVASTAVA, S. K. SINGH, A. K. SANYASI, L. M. AWASTHI, and S. K. MATTOO
[Review of Scientific Instruments](#) 87, 073501, 2016
61. Characterization of Transient Noise in Advanced LIGO Relevant to Gravitational Wave Signal GW150914
B P ABBOTT, G GAUR, M K GUPTA, Z KHAN, A K SRIVASTAVA, et al.
[Classical and Quantum Gravity](#), 33, 134001, 2016
62. Numerical Simulation of ^{60}Co -Gamma Irradiation Effects on Electrical Characteristics of N-Type FZ Silicon X-Ray Detectors
P. VIGNESHWARA RAJA, C.V.S. RAO, and N.V.L. NARASIMHA MURTY
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with [Materials and Atoms](#), 379, 23, 2016
63. Monitoring Hydrogen Plasma Reduction of Oxides by Na D Lines
SARITA DAS, DEBI PRASAD DAS, PRIYANKA RAJPUT, JOYDEEP GHOSH, BHAGYADHAR BHOI, BARADA KANTA MISHRA
[Plasma Chemistry and Plasma Processing](#), 36, 4, 1125, 2016
64. Day Time Flight of Micrometeoroid in Upper Earth Atmosphere
SHIKHA MISRA and S. K. MISHRA
[Monthly Notices of the Royal Astronomical Society](#), 459, 2486, 2016
65. Formation and Evolution of Vortices in a Collisional Strongly Coupled Dusty Plasma
SAYANEE JANA, DEBABRATA BANERJEE, and NIKHIL CHAKRABARTI

[Physics Letters A, 380, 2531, 2016](#)

66. Localization and Broadband Follow-Up of the Gravitational-Wave Transient GW150914
B. P. ABBOTT, R. ABBOTT, T.D.ABBOTT, M.R.ABERNATHY, F. ACERNESE, K. ACKLEY, C. ADAMS, T. ADAMS, P. ADDESSO, R. X. ADHIKARI
[The Astrophysical Journal Letters, 826, L13, 2016](#)
67. Rotational Dynamics in Ionic Liquids from NMR Relaxation Experiments and Simulations: Benzene and 1-Ethyl-3-Methylimidazolium
CHRISTOPHER A. RUMBLE, ANNE KAINZ, SHARAD K. YADAV, BRIAN CONWAY, JUAN C. ARAQUE, GARY A. BAKER, CLAUDIO MARGULIS, and MARK MARONCELLI
[Journal of Physical Chemistry B, 120, 9450, 2016](#)
68. Measurement of Ion Species Produced Due to Bombardment of 450 eV N₂⁺ Ions with Hydrocarbons-Covered Surface of Tungsten: Formation of Tungsten Nitride
S. KUMAR, P. BHATT, A. KUMAR, B.K. SINGH, B. SINGH, S. PRAJAPATI, and R. SHANKER
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 380, 50, 2016
[Materials and Atoms, 380, 50, 2016](#)
69. Experimental Investigation of Flow Induced Dust Acoustic Shock Waves in Complex Plasma
S. JAISWAL, P. BANDYOPADHYAY and A. SEN
[Physics of Plasmas, 23, 083701, 2016](#)
70. Propagation Characteristics of Dust-Acoustic Waves in Presence of a Floating Cylindrical Object in the DC Discharge Plasma
MANGILAL CHOUDHARY, S. MUKHERJEE and P. BANDYOPADHYAY
[Physics of Plasmas, 23, 083705, 2016](#)
71. Observation of an Edge Coherent Mode and Poloidal Flow in the Electron Cyclotron Wave Induced High β_p Plasma in QUEST
SANTANU BANERJEE, H. ZUSHI, N. NISHINO, K. MISHRA, Y. MAHIRA, S. TASHIMA, A. EJIRI, T. YAMAGUCHI, T. ONCHI, Y. NAGASHIMA, K. HANADA, K. NAKAMURA, H. IDEI, M. HASEGAWA, A. FUJISAWA, A. KUZMIN and K. MATSUOKA
[Physics of Plasmas, 23, 082507, 2016](#)

72. Relativistic Electron Beam Driven Longitudinal Wake-Wave Breaking in a Cold Plasma
RATAN KUMAR BERA, ARGHYA MUKHERJEE, SUDIP SENGUPTA, and AMITA DAS
[Physics of Plasmas, 23, 083113, 2016](#)
73. Particle-in-Cell Simulation of Two-Dimensional Electron Velocity Shear Driven Instability in Relativistic Domain
CHANDRASEKHAR SHUKLA, AMITA DAS and KARTIK PATEL
[Physics of Plasmas, 23, 082108, 2016](#)
74. Comprehensive All-Sky Search for Periodic Gravitational Waves in the Sixth Science Run LIGO Data
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 94, 042002, 2016](#)
75. A Dynamical Framework to Relate Perceptual Variability with Multisensory Information Processing
BHUMIKA THAKUR, ABHISHEK MUKHERJEE, ABHIJIT SEN and ARPAN BANERJEE
[Scientific Reports, 6, 31280, 2016](#)
76. Directly Comparing GW150914 with Numerical Solutions of Einstein's Equations for Binary Black Hole Coalescence
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 94, 064035, 2016](#)
77. Phase Mixing of Relativistically Intense Longitudinal Wave Packets in Cold Plasma
ARGHYA MUKHERJEE and SUDIP SENGUPTA
[Physics of Plasmas, 23, 92112, 2016](#)
78. Role of Neutral Gas in Scrape-Off Layer of Tokamak Plasma in the Presence of Finite Electron Temperature and its Gradient
N. BISAI and P. K. KAW
[Physics of Plasmas, 23, 92509, 2016](#)

79. BN/BNSiO₂ Sputtering Yield Shape Profiles under Stationary Plasma Thruster Operating Conditions
M. RANJAN, A. SHARMA, A. VAID, T. BHATT, V. NANDALAN, M. G. JAMES, H. REVATHI and S. MUKHERJEE
[AIP Advances, 6, 95224, 2016](#)
80. Study of MHD Activities in the Plasma of SST-1
JASRAJ DHONGDE, MANISHA BHANDARKAR, SUBRATA PRADHAN, and SAMEER KUMAR
[Fusion Engineering and Design, 108, 77, 2016](#)
81. Low Energy Electron Catalyst: The Electronic Origin of Catalytic Strategies
DALY DAVIS and Y. SAJEEV
[Physical Chemistry Chemical Physics, 18, 27715, 2016](#)
82. Influence of Electron-Neutral Elastic Collisions on the Instability of an Ion-Contaminated Cylindrical Electron Cloud: 2D3V PIC-With-MCC Simulations
M. SENGUPTA and R. GANESH
[Physics of Plasmas, 23, 102111, 2016](#)
83. One Dimensional PIC Simulation of Relativistic Buneman Instability
ROOPENDRA SINGH RAJAWAT and SUDIP SENGUPTA
[Physics of Plasmas, 23, 102110, 2016](#)
84. Effect of Magnetic Field Topology on Quasi-Stationary Equilibrium, Fluctuations and Flows in a Simple Toroidal Device
UMESH KUMAR, SHEKAR G THATIPAMULA, R. GANESH, Y. C. SAXENA and D. RAJU
[Physics of Plasmas, 23, 102301, 2016](#)
85. Fore-Wake Excitations from Moving Charged Objects in Complex Plasma
SANAT KUMAR TIWARI and ABHIJIT SEN
[Physics of Plasmas, 23, 100705, 2016](#)
86. Developmental Aspects of Microwave-Plasma Interaction Experiments: Phase-1

V. P. ANITHA, PRIYAVANDANA J. RATHOD, RAJ SINGH, D. V. GIRI
[IEEE Transactions on Plasma Science, 44, 7463046, 2016](#)

87. Microstructure and Wear Behaviour of Pulsed Plasma Nitrided AISI H13 Tool Steel
K. DAS, A. JOSEPH, M. GHOSH and S. MUKHERJEE
[Canadian Metallurgical Quarterly, 55, 402, 2016](#)
88. Manifestation of Anharmonic Resonance in the Interaction of Intense Ultrashort Laser Pulses with Microstructured Targets
MALAY DALUI, M. KUNDU, T. MADHU TRIVIKRAM, KRISHANU RAY and M. KRISHNAMURTHY
[Physics of Plasmas, 23, 103101, 2016](#)
89. Adhesion Characteristics on Anodized Titanium and its Durability under Aggressive Environments
S. AHMED, D. CHAKRABARTY, S. MUKHERJEE, S. BHOWMIK
[Surface Review and Letters, 23, 1650033, 2016](#)
90. Studies of Acoustic Emission Signatures for Quality Assurance of SS 316L Welded Samples under Dynamic Load Conditions
S.V. RANGANAYAKULU, M.N.V.S. RAVI KIRAN, J. SHIVA RAJU, B. RAMESH KUMAR
Journal of Engineering Science and Technology, 11, 1499, 2016
91. Long-Time Evolution of Low Pressure Laboratory Plasma After Application of Transient High Voltage Positive Pulses
M. CHOUDHARY, S. KAR, S.MUKHERJEE
[Contributions to Plasma Physics, 56, 878, 2016](#)
92. Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review X, 6, 041014, 2016](#)
93. Binary Black Hole Mergers in the First Advanced LIGO Observing Run
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review X, 6, 041015, 2016](#)

94. Numerical Modeling of First Experiments on PbLi MHD Flows in a Rectangular Duct with Foam-Based SiC Flow Channel Insert
S. SMOLENTSEV, C. COURTESOLE, M. ABDOL, S. SHARAFAT, S. SAHU, and T. SKETCHLEY
[Fusion Engineering and Design, 108, 7, 2016](#)
95. Enhancing Detection Sensitivity of SST-1 Thomson Scattering Experiment
VISHNU CHAUDHARI, KIRAN PATEL, JINTO THOMAS, and AJAI KUMAR
[Fusion Engineering and Design, 108, 67, 2016](#)
96. Design and Characterization of A Prototype Divertor Viewing Infrared Video Bolometer for NSTX-U
G. G. VAN EDEN, M. L. REINKE, B. J. PETERSON, T. K. GRAY, L. F. DELGADO-APARICIO, M. A. JAWORSKI, J. LORE, K. MUKAI, R. SANO, S. N. PANDYA, T. W. MORGAN
[Review of Scientific Instruments, 87, 11D402, 2016](#)
97. Effect of Driving Frequency on the Electron Energy Distribution Function and Electron-Sheath Interaction in a Low Pressure Capacitively Coupled Plasma
S. SHARMA, N. SIRSE, P. K. KAW, M. M. TURNER and A. R. ELLINGBOE
[Physics of Plasmas, 23, 110701, 2016](#)
98. Role of Temperature on Thermal Conductivity of Nanofluids: A Brief Literature Review
SAYANTAN MUKHERJEE, PURNA CH. MISHRA, S.K.S. PARASHAR, PARITOSH CHAUDHURI
[Heat and Mass Transfer, 52, 2575, 2016](#)
99. Defective Iron-Oxide Nanoparticles Synthesised by High Temperature Plasma Processing: A Magnetic Characterisation versus Temperature
C BALASUBRAMANIAN, B JOSEPH, PB ORPE, NL SAINI, S MUKHERJEE, K DZIEDZIC-KOCUREK, J STANEK, D DI GIOACCHINO and A MARCELLI
[Nanotechnology, 27, 445701, 2016](#)
- 100 Response of the Far Scrape-Off Layer Plasma to Strong Gas Puffing in the High Poloidal Beta Configuration of the QUEST Spherical Tokamak
T ONCHI, H ZUSHI, K MISHRA, Y OYAMA, Y NAGASHIMA, K HANADA, H IDEI, M HASEGAWA, A KUZMIN, H MIURA, K NAKAMURA, A FUJISAWA and K NAGAOKA
[Plasma Physics and Controlled Fusion, 58, 115004, 2016](#)
- 101 Validation and Implementation of Sandwich Structure Bottom Plate to Rib Weld Joint in the Base Section of ITER Cryostat
RAJNIKANT PRAJAPATI, ANIL K. BHARDWAJ, GIRISH GUPTA, VAIBHAV JOSHI, MITUL PATEL, JAGRUT BHAVSAR, VIPUL MORE, MUKESH JINDAL, AVIK

BHATTACHARYA, GAURAV JOGI, AMIT PALALIYA, SAROJ JHA, MANISH PANDEY, PANDURANG JADHAV, HEMAL DESAI
[Fusion Engineering and Design, 109-111, Part A, 652, 2016](#)

- 102 Overview of Time Synchronization System of Steady State Superconducting Tokamak SST-A.KUMAR, H. MASAND, J. DHONGDE, K. PATEL, K. MAHAJAN, H. GULATI M. BHANDARKAR, H. CHUDASAMA, S. PRADHAN
[Fusion Engineering and Design, 112, 683, 2016](#)
- 103 Implementation of Time Synchronized Cryogenics Control System Network Architecture for SST-1
RAKESH J. PATEL, GAURANG MAHESURIA, PRADIP PANCHAL, ROHIT PANHAL, DASARATH SONARA, VIPUL TANNA, SUBRATA PRADHAN
[Fusion Engineering and Design, 112, 747, 2016](#)
- 104 Indian Test Facility Preliminary Design of Safety and Interlock System for of Diagnostic Neutral Beam
HIMANSHU TYAGI, JIGNESH SONI, RATNAKAR YADAV, MAINAK BANDYOPADHYAY, CHANDRAMOULI ROTTI, AGRAJIT GAHLAUT, JAYDEEP JOSHI,
DEEPAK PARMAR, GOURAB BANSAL, KAUSHAL PANDYA, ARUN [CHAKRABORT](#)
[Fusion Engineering and Design, 112, 766, 2016](#)
- 105 Monitoring and Data Acquisition of the High Speed Hydrogen Pellet in SPINS
SAMIRAN SHANTI MUKHERJEE, JYOTISHANKAR MISHRA, RANJANA GANGRADEY, PRAMIT DUTTA, NAVEEN RASTOGI, PARESH PANCHAL, PRATIK NAYAK, JYOTI AGARWAL, PAWAN BAIRAGI, HARESH PATEL, HARDIK SHARMA
[Fusion Engineering and Design, 112, 757, 2016](#)
- 106 GPIB Based Instrumentation and Control System for ADITYA Thomson Scattering Diagnostic
KIRAN PATEL, VISHAL PILLAI, NEHA SINGH, VISHNU CHAUDHARY, JINTO THOMAS, AJAI KUMAR
[Fusion Engineering and Design, 112, 860, 2016](#)
- 107 Instrumentation for Status Monitoring and Protection of SST-1 Superconducting Magnets
A.N. SHARMA, U. PRASAD, K. DOSHI, P. VARMORA, Y. KHRISTI, D. PATEL, S.PRADHAN
[Fusion Engineering and Design, 112, 771, 2016](#)
108. Automation of Aditya Vacuum Control System Based on CODAC Core System
VISMAYSINH D. RAULJI, HARSHAD PUJARA, BHARAT ARAMBHADIYA, KUMARPALSINH JADEJA, SHAILESH BHATT, RACHANA RAJPAL

[Fusion Engineering and Design, 112, 910, 2016](#)

- 109 Design of Mass Flow Rate Measurement System for SST-1 Superconducting Magnet System
P. VARMORA, A.N. SHARMA, Y. KHRISTI, U. PRASAD, D. PATEL, K. DOSHI, S. PRADHAN
[Fusion Engineering and Design, 112, 845, 2016](#)
- 110 Vessel Eddy Current Characteristics in SST-1 Tokamak
SUBRATA JANA, SUBRATA PRADHAN, JASRAJ DHONGDE, HARISH MASAND
[Fusion Engineering and Design, 112, 380, 2016](#)
- 111 RF Compensation of Single Langmuir Probe in Low Density Helicon Plasma
SOUMEN GHOSH, PRABAL K. CHATTOPADHYAY, JOYDEEP GHOSH, DHIRAJ BORA
[Fusion Engineering and Design, 112, 915, 2016](#)
- 112 Overview of Data Acquisition System for SST-1 Diagnostics
MANIKA SHARMA, IMRAN MANSURI, TUSHAR RAVAL, A.L SHARMA, S. PRADHAN
[Fusion Engineering and Design, 112, 872, 2016](#)
- 113 Process Automation System for Integration and Operation of Large Volume Plasma Device
R.SUGANDHI, P.K. SRIVASTAVA, A.K. SANYASI, PRABHAKAR SRIVASTAV, L.M. AWASTHI, S.K. MATTOO
[Fusion Engineering and Design, 112, 804, 2016](#)
- 114 Upgradation in SCADA and PLC of Existing LN2 Control System for SST-1
PRADIP PANCHAL, GAURANG MAHESURIA, ROHIT PANCHAL, RAKESH PATEL, DASHRATH SONARA, DIPEN PITRODA, HIREN NIMAVAT, VIPUL TANNA, SUBRATA PRADHAN
[Fusion Engineering and Design, 112, 883, 2016](#)
- 115 Design and Analysis of SST-2 Fusion Reactor
R. SRINIVASAN
[Fusion Engineering and Design, 112, 240, 2016](#)
- 116 Embedded Multi-Channel Data Acquisition System on FPGA for Aditya Tokamak
RACHANA RAJPAL, HITESH MANDALIYA, JIGNESH PATEL, PRAVEENA KUMARI, PRAMILA GAUTAM, VISMAYSINH RAULJI, PRAVEENLAL EDAPPALA, H.D PUJARA, R. JHA
[Fusion Engineering and Design, 112, 964, 2016](#)

- 117 Design, Development and Testing of Real Time Control and Data Acquisition System for R&D IC H&CD Source
KUMAR RAJNISH, DIPAL SONI, SRIPRAKASH VERMA, HRIDAY PATEL, RAJESH TRIVEDI, RAGHURAJ SINGH, MANOJ PATEL, APARAJITA MUKHERJEE, KEYUR MAKADIA
[Fusion Engineering and Design, 112, 752, 2016](#)
- 118 Local Control Unit for ITER-India Gyrotron Test Facility (IIGTF)
VIPAL RATHOD, RONAK SHAH, DEEPAK MANDGE, RAJVI PARMAR, S.L. RAO
[Fusion Engineering and Design, 112, 897, 2016](#)
- 119 Archiving and Retrieval of Experimental Data Using SAN Based Centralized Storage System for SST-1
MANISHA BHANDARKAR, HARISH MASAND, AVEG KUMAR, KIRIT PATEL, JASRAJ DHONGDE, HITESH GULATI, KIRTI MAHAJAN, HITESH CHUDASAMA, SUBRATA PRADHAN
[Fusion Engineering and Design, 112, 991, 2016](#)
- 120 PXIe Based Data Acquisition and Control System for ECRH Systems on SST-1 and Aditya Tokamak
JATINKUMAR J. PATEL, B.K. SHUKLA, N. RAJANBABU, H. PATEL, P. DHORAJIYA, D. PUROHIT, K. MANKADIYA
[Fusion Engineering and Design, 112, 919, 2016](#)
- 121 Data Acquisition and Control System for SMARTEX – C
YOGESH GOVIND YEOLE, LAVKESH LACHHVANI, MANU BAJPAI, SURENDRASINGH RATHOD, ABHIJEET KUMAR, K. SATHYANARAYANA, H.D. PUJARA, SAMBARAN PAHARI, PRABAL K. CHATTOPADHYAY
[Fusion Engineering and Design, 112, 818, 2016](#)
- 122 Development of Electronics and Data Acquisition System for Independent Calibration of Electron Cyclotron Emission Radiometer
PRAVEENA KUMARI, VISMAYSINH RAULJI, HITESH MANDALIYA, JIGNESH PATEL, VARSHA SIJU, S.K. PATHAK, RACHANA RAJPAL, R. JHA
[Fusion Engineering and Design, 112, 924, 2016](#)
- 123 Design and Architecture of SST-1 Basic Plasma Control System
KIRIT PATEL, D. RAJU, J. DHONGDE, K. MAHAJAN, H. CHUDASAMA, H. GULATI, A. CHAUHAN, H. MASAND, M. BHANDARKAR, S. PRADHAN
[Fusion Engineering and Design, 112, 703, 2016](#)
- 124 Optimization of the Diffusion Bonding Parameters for SS316L/CuCrZr with and Without Nickel Interlayer

- K.P. SINGH, ALPESH PATEL, KEDAR BHOPE, S.S. KHIRWADKAR, MAYUR
[MEHTA Fusion Engineering and Design, 112, 274, 2016](#)
- 125 Numerical Modelling for the Effective Thermal Conductivity of Lithium Meta Titanate Pebble Bed with Different Packing Structures
MAULIK PANCHAL, PARITOSH CHAUDHURI, JON T VAN LEW, ALICE YING
[Fusion Engineering and Design, 112, 303, 2016](#)
- 126 Development of Data Acquisition and Control System for ICH & CD Transmission Line Components Test Facility
MANOJ PATEL, AKHIL JHA, NIDHI PATEL, J.V.S. HARI KRISHNA, KUMAR RAJNISH, DIPAL SONI, SRIPRAKASH VERMA, HRIDAY PATEL, RAJESH TRIVEDI, APARAJITA MUKHERJEE
[Fusion Engineering and Design, 112, 824, 2016](#)
- 127 Progress in XRCS-Survey Plant Instrumentation and Control Design for ITER
SANJEEV VARSHNEY, SHIVAKANT JHA, STEFAN SIMROCK, ROBIN BARNESLEY, VINCENT MARTIN, SAPNA MISHRA, PRABHAKANT PATIL, SHREYAS PATEL, VINAY KUMAR
[Fusion Engineering and Design, 112, 877, 2016](#)
- 128 Status of the New WEST Plasma Control System
NATHALIE RAVENE, REMY NOUAILLETAS, JACQUELINE SIGNORET, BERNARD GUILLERMINET, WOLFGANG TREUTERRER, ANETT SPRING, HARISH MASAND, JASRAJ DHONGDE, MANISHA BHANDARKAR, CHRIS RAPSON, HEIKE LAQUA, MARC LEWERENTZ, PHILIPPE MOREAU, SYLVAIN BREMOND, LUDOVIC ALLEGRETTI, GERHARD RAUPP, ANDREAS WERNER, FRANCOIS SAINT LAURENT, ERIC NARDON
[Fusion Engineering and Design, 112, 667, 2016](#)
- 129 Design and First Plasma Measurements of the ITER-ECE Prototype Radiometer
M. E. AUSTIN, M. W. BROOKMAN, W. L. ROWAN, S. DANANI, E. W. BRYERTON and P. DOUGHERTY
[Review of Scientific Instruments, 87, 11E111, 2016](#)
- 130 Engineering Design and Analysis of Indian LLCB TBM Set
S. RANJITHKUMAR, DEEPAK SHARMA, PARITOSH CHAUDHURI, CHANDAN DANANI, E. RAJENDRA KUMAR, ISTIYAK KHAN, SUJAY BHATTACHARYA, K.N. VYAS
[Fusion Engineering and Design, 109-111, Part B, 1581, 2016](#)
- 131 Overview and Status of ITER Cryostat Manufacturing

ANIL K. BHARDWAJ, GIRISH GUPTA, RAJNIKANT PRAJAPATI, VAIBHAV JOSHI, MITUL PATEL, JAGRUT BHAVSAR, VIPUL MORE, MUKESH JINDAL, AVIK BHATTACHARYA, GOURAV JOGI, AMIT PALALIYA, SAROJ JHA, MANISH PANDEY, DILEEP SHUKLA, GANESH IYER, PANDURANG JADHAV, DIPESH GOYAL, ANISH DESAI, I. SEKACHEV, GUILLAUME VITUPIER, XIE HAN, TAILHARDAT OLIVIE

[Fusion Engineering and Design, 109-111, Part B, 1351, 2016](#)

- 132 Structural Analysis of ITER Multi-Purpose Deployer
MANOAH STEPHEN MANUELRAJ, PRAMIT DUTTA, KRISHAN KUMAR GOTEWAL, NAVEEN RASTOGI, ALESSANDRO TESINI, CHANG-HWAN CHOI
[Fusion Engineering and Design, 109–111, Part B, 1296, 2016](#)
- 133 Thermal-Hydraulics of LLCB TBM under Different ITER Operational Conditions
PARITOSH CHAUDHURI, S. RANJITHKUMAR, DEEPAK SHARMA, CHANDAN DANANI, E. RAJENDRA KUMAR
[Fusion Engineering and Design, 109-111, Part A, 906, 2016](#)
- 134 Molecular Dynamics Studies of Sticking and Reflection of Low-Energy Deuterium on Single Crystal Tungsten
P.N. MAYA
[Journal of Nuclear Materials, 480, 411, 2016](#)
- 135 Flowing Dusty Plasma Experiments: Generation of Flow and Measurement Techniques
S JAISWAL, P BANDYOPADHYAY and A SEN
[Plasma Sources Science and Technology, 25, 065021, 2016](#)
- 136 Study of Fatigue Crack Growth in RAFM Steel using Acoustic Emission Technique
M. NANI BABU, C.K. MUKHOPADHYAY, G. SASIKALA, SHAJU K. ALBERT, A.K. BHADURI, T. JAYAKUMAR, and RAJENDRA KUMAR
[Journal of Constructional Steel Research, 126, 107, 2016](#)
- 137 Overview of LLCB TBM Design and R&D Activities in India
E. RAJENDRA KUMAR, K.N. VYAS, T. JAYAKUMAR
[Fusion Engineering and Design, 109–111, Part B, 1522, 2016](#)
- 138 Accident Analyses of Selected Postulated Events for Safety Assessment of Indian LLCB TBS in ITER
K.T. SANDEEP, VILAS CHAUDHARI
[Fusion Engineering and Design, 109-111, Part B, 1534, 2016](#)
- 139 Radwaste Management Aspects of the Test Blanket Systems in ITER

- J.G. VAN DER LAAN, D. CANAS, V. CHAUDHARI, M. ISELI, Y. KAWAMURA, D.W. LEE, P. PETIT, C.S. PITCHER, D. TORCY, D. UGOLINI, H. ZHANG
[Fusion Engineering and Design, 109–111, Part A, 222, 2016](#)
- 140 Machine Control System of Steady State Superconducting Tokamak-1
HARISH MASAND, AVEG KUMAR, M. BHANDARKAR, K. MAHAJAN, H. GULATI, J. DHONGDE, K. PATEL, H. CHUDASMA, S. PRADHAN
[Fusion Engineering and Design, 112, 731, 2016](#)
- 141 Development of a Control System for Compression and Expansion Cycles of Critical Valve for High Vacuum Systems
JYOTI AGARWAL, H. SHARMA, HARESH PATEL, R. GANGRADEY, VRUSHABH LAMBADE
[Fusion Engineering and Design, 112, 735, 2016](#)
- 142 Multi-Channel Control Circuit for Real-Time Control of Events in Aditya Tokamak
PRAVEENLAL EDAPPALA, MINSHA SHAH, RACHANA RAJPAL, R.L. TANNA, JOYDEEP GHOSH, P.K. CHATTOPADHYAY, R. JHA
[Fusion Engineering and Design, 112, 678, 2016](#)
- 143 Overview of Data Acquisition and Central Control System of Steady State Superconducting Tokamak (SST-1)
S. PRADHAN, K. MAHAJAN, H.K. GULATI, M. SHARMA, A. KUMAR, K. PATEL, H. MASAND, I. MANSURI, J. DHONGDE, M. BHANDARKAR, H. CHUDASAMA
[Fusion Engineering and Design, 112, 718, 2016](#)
- 144 Operation and Control of High Power Gyrotrons for ECRH Systems in SST-1 and Aditya
B.K. SHUKLA, D. BORA, R. JHA, JATIN PATEL, HARSHIDA PATEL, RAJAN BABU, PRAGNESH DHORAJIYA, SHEFALI DALAKOTI, DHARMESH PUROHIT
[Fusion Engineering and Design, 112, 673, 2016](#)
- 145 Universal Interface on Zynq® Soc with CAN, RS-232, Ethernet and AXI GPIO for Instrumentation & Control
ABHIJEET KUMAR, RACHANA RAJPAL, HARSHAD PUJARA, HITESH MANDALIYA, PRAVEENLAL EDAPPALA
[Fusion Engineering and Design, 112, 865, 2016](#)
- 146 Use of EPICS and Python Technology for the Development of a Computational Toolkit for High Heat Flux Testing of Plasma Facing Components
RITESH SUGANDHI, RAJAMANNAR SWAMY, SAMIR KHIRWADKAR
[Fusion Engineering and Design, 112, 783, 2016](#)
- 147 Automation of Aditya Tokamak Plasma Position Control DC Power Supply

- BHARAT ARAMBHADIYA, HARSHITA RAJ, R.L. TANNA, PRAVEENLAL EDAPPALA, RACHANA RAJPAL, JOYDEEP GHOSH, P.K. CHATTOPADHYAY, M.B. KALAL
[Fusion Engineering and Design, 112, 714, 2016](#)
- 148 FPGA Based Phase Detection Technique for Electron Density Measurement in SST-1 Tokamak
PRAMILA, HITESH MANDALIYA, RACHANA RAJPAL, RAJWINDER KAUR
[Fusion Engineering and Design, 112, 888, 2016](#)
- 149 First Targeted Search for Gravitational-Wave Bursts from Core-Collapse Supernovae in Data of First-Generation Laser Interferometer Detectors
B. P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 94, 102001, 2016](#)
- 150 Results of the Deepest All-Sky Survey for Continuous Gravitational Waves on LIGO S6 Data Running on the Einstein@Home Volunteer Distributed Computing Project
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 94, 102002, 2016](#)
- 151 Fabrication, Transport Current Testing, and Finite Element Analysis of MgB₂ Racetrack Coils
ANANYA KUNDU, DIPAK PATEL, NITISH KUMAR, ARUN G. PANCHAL, WENBIN QIU, HYUNSEOCK JIEZONGQING, MAEKREM YANMAZ, MOHAMMED SHAHABUDDIN, JUNG HO KIM, SUBRATA PRADHAN, MD SHAHRIAR AL HOSSAIN
[Journal of Superconductivity and Novel Magnetism, 1-6, 2016](#)
- 152 A Novel Technique toward Fabricating High-Current-Carrying MgB₂-Based Superconducting Joints
SUBRATA PRADHAN, SUBRAT KUMAR DAS, ANEES BANO, ANANYA KUNDU
[IEEE Transactions on Applied Superconductivity, 26, 7523213, 2016](#)
- 153 Prototype High Voltage Bushing: Configuration to its Operational Demonstration
SEJAL SHAH, D. SHARMA, D. PARMAR, H. TYAGI, K. JOSHI, H. SHISHANGIYA, M. BANDYOPADHYAY, C. ROTTI, A. CHAKRABORTY
[Fusion Engineering and Design, 113, 6, 2016](#)
- 154 Neutronic Performance of Indian LLCB TBM Set Conceptual Design in ITER
H.L. SWAMI, A.K. SHAW, A.N. MISTRY, C. DANANI
[Fusion Engineering and Design, 113, 71, 2016](#)
- 155 Electrical Testing and Performance Evaluation of 1:1 Prototype JET ELM Control Coils

DEVEN KANABAR, SWATI ROY, MAHESH GHATE, PIYUSH RAJ, ANANYA KUNDU, NITISH KUMAR, DHAVAL BHAVSAR, ARUN PANCHAL, SUBRATA PRADHAN

[Fusion Engineering and Design, 113, 171, 2016](#)

- 156 The Stability of 1-D Soliton in Transverse Direction

DEEPA VERMA, RATAN KUMAR BERA, AMITA DAS, and PREDHIMAN KAW

[Physics of Plasmas, 23, 123102, 2016](#)

- 157 Long Duration Operational Characteristics of the First Indian 42-Ghz, 200-Kw Gyrotron

PIYUSH RAJ, UPENDRA PRASAD, YOHAN KHRISTI, MAHESH GHATE, ARUN PANCHAL, DHAVAL BHAVSAR, MONI BANAUDHA, DEVEN KANABAR, BHADRESH R. PARGHI and SUBRATA PRADHAN

[IEEE Transactions on Applied Superconductivity, 26, 7723878, 2016](#)

- 158 A Technique to Control Cross-Field Diffusion of Plasma across a Transverse Magnetic Field

P. HAZARIKA, M. CHAKRABORTY, B. K. DAS and M. BANDYOPADHYAY

[Physics of Plasmas, 23, 122105, 2016](#)

- 159 Sol-Gel Followed By Urea-Acetone Spherodization for Preparation of Lithium Titanate Ceramics Pebbles and Preliminary Characterization

S.K. SINHA, S. YADAVA, P.M. RAOLE

[Fusion Engineering and Design, 113, 146, 2016](#)

- 160 Complex Plasma Experimental Device - A Test Bed for Studying Dust Vortices and Other Collective Phenomena

MANJIT KAUR, SAYAK BOSE, P K CHATTOPADHYAY, J GHOSHY, C SAXENA

[Pramana - Journal of Physics, 87, 89, 2016](#)

- 161 Upper Limits On the Rates of Binary Neutron Star and Neutron Star-Black Hole Mergers from Advanced LIGO's First Observing Run

B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL et. al.

[Astrophysical Journal Letters, 832, L21, 2016](#)

- 162 Experimental Observation of Phase-Flip Transitions in Two Inductively Coupled Glow Discharge Plasmas

NEERAJ CHAUBEY, S. MUKHERJEE, A. SEN, and A. N. SEKAR IYENGAR

[Physical Review E - Statistical, Nonlinear, and Soft Matter Physics, 94, 061201, 2016](#)

- 163 Er₂O₃ Coating by Reactive Magnetron Sputtering: Effect of Oxygen Supply and Erbium Pre-Layer Deposition

P.A. RAYJADA, N.P. VAGHELA, R. RAHMAN, M. BHATNAGAR, M. RANJAN, N.L. CHAUHAN, AMIT SIRCAR, L.M. MANOCHA, P.M. RAOLE
[Nuclear Materials and Energy, 9, 256, 2016](#)

- 164 Analysis of Impurities on Contaminated Surface of the Tokamak Limiter Using Laser Induced Breakdown Spectroscopy
GULAB SINGH MAURYA, ROHIT KUMAR, AJAI KUMAR, AWADHESH K. RAI
SpectrochimicaActa Part B:
[Atomic Spectroscopy, 126, 17, 2016](#)

- 165 Behavior of Plasma Sheath with Nonextensively Distributed Two-Temperature Electrons and Isothermal Ions
DIMA RANI BORGOHAIN, K. SAHARIA, K. S. GOSWAMI
[Physics of Plasmas, 23, 122113, 2016](#)

- 166 Molecular Dynamics Study of Flow past an Obstacle in Strongly Coupled Yukawa Liquids
HARISH CHARAN, RAJARAMAN GANESH
[Physics of Plasmas, 23, 123703, 2016](#)

- 167 Mode Observation of Transition and Low-Frequency Oscillations in Magnetically Constricted Anode
S. CHAUHAN, M. RANJAN, M. BANDYOPADHYAY, S. MUKHERJEE
[Physics of Plasmas, 23, 123524, 2016](#)

- 168 Anharmonic Resonance Absorption of Short Laser Pulses in Clusters: A Molecular Dynamics Simulation Study
S. S. MAHALIK, M. KUNDU
[Physics of Plasmas, 23, 123302, 2016](#)

- 169 Propagation Characteristics of an Extremely Anisotropic Metamaterial Loaded Helical Guide
DUSHYANT K. SHARMA and SURYA K. PATHAK
[Optics Express, 24, 29521, 2016](#)

- 170 Constraining Scalar-Gauss-Bonnet Inflation by Reheating, Unitarity, and Planck Data
SRIJIT BHATTACHARJEE, DEBAPRASAD MAITY, and RUPAK MUKHERJEE
[Physical Review D, 95, 023514, 2017](#)

- 171 System Upgradation for Surface Mode Negative Ion Beam Extraction Experiments in ROBIN KAUSHAL PANDYA, GOURAB BANSAL, AGRAJIT GAHLAUT, JIGNESH SONI, RATNAKAR K. YADAV, VUPPUGALLA MAHESH, HIMANSHU TYAGI, KANUG. PARMAR, HIREN MISTRI, JIGHESH BHAGORA, BHAVESH PRAJAPATI, KARTIK PATEL, MANAS BHUYAN, MEHUL GOUSWAMI, MAINAK BANDYOPADHYAY, ARUN K. CHAKRABORTY

[Fusion Engineering and Design, 114, 187, 2017](#)

- 172 Nanotribological Response of a Plasma Nitrided Bio-Steel
ANIRUDDHA SAMANTA, , HIMEL CHAKRABORTY, MANJIMA BHATTACHARYA,
JITEN GHOSH, MONJOY SREEMANY, SANDIP BYSAKH, RAMKRISHNA
RANE, ALPHONSA JOSEPH, GHANSHYAM JHALA, SUBROTO MUKHERJEE, MITUN
DAS, ANOOP K. MUKHOPADHYAY
[Journal of the Mechanical Behavior of Biomedical Materials, 65, 584, 2017](#)
- 173 An Automated Approach for Real Time Diagnostics of Electrical and Optical Parameters for
ESD Events at Triple Junction
R.S. JOSHI, S.B. GUPTA
[Measurement, 95, 465, 2017](#)
- 174 MHD Mode Evolutions Prior to Minor and Major Disruptions in SST-1 Plasma
JASRAJ DHONGDE, SUBRATA PRADHAN, MANISHA BHANDARKAR
[Fusion Engineering and Design, 114, 6, 2017](#)
- 175 Analysis of Trapped Oscillation Modes in Magnetized PPC and its Tunability for Variable
Plasma Parameters
TANVI MITTAL, RANAPRATAP YADAV, and DHIRAJ BORA
[Optics Communications, 382, 7, 2017](#)
- 176 Transient Thermo-Structural and Static Magnetic Characteristics of 1:1 Prototype JET ELM
Control Coils
ANANYA KUNDU, SUBRATA PRADHAN, MAHESH GHATE, DEVEN KANABAR,
SWATI ROY, NITISH KUMAR
[Fusion Engineering and Design, 114, 203, 2017](#)
- 177 Collective Dynamics of Time-Delay-Coupled Phase Oscillators in a Frustrated Geometry
BHUMIKA THAKUR, DEVENDRA SHARMA, ABHIJIT SEN, and GEORGE L.
JOHNSTON
[Physical Review E, 95, 012204, 2017](#)
- 178 Achieving Ultrahigh Vacuum in an Unbaked Chamber with Glow Discharge Conditioning
ZIAUDDIN KHAN, PRATIBHA SEMWAL, KALPESH R DHANANI, DILIP C RAVAL,
SUBRATA PRADHAN
[Pramana - Journal of Physics, 88, 12, 2017](#)
- 179 An Enhanced Tokamak Startup Model
RAJIV GOSWAMI, JEAN-FRANCOIS ARTAUD
[Physics of Plasmas, 24, 012508, 2017](#)

- 180 Characteristics of Floating Potential of a Probe in Electronegative Plasma
A.K. PANDEY and S. K. KARKARI
[Physics of Plasmas, 24, 013507, 2017](#)
- 181 The Effect of Intermediate Frequency on Sheath Dynamics in Collisionless Current Driven Triple Frequency Capacitive Plasmas
S. SHARMA, S. K. MISHRA, P. K. KAW, and M. M. TURNER
[Physics of Plasmas, 24, 013509, 2017](#)
- 182 Mass Selection in Laser-Plasma Ion Accelerator on Nanostructured Surfaces
MALAY DALUI, M. KUNDU, SUBHRANGSU SARKAR, SHEROY TATA, JOHN PASLEY, P. AYYUB, and D M. KRISHNAMURTHY
[Physics of Plasmas, 24, 010703, 2017](#)
- 183 The Basic Physics of the Binary Black Hole Merger GW150914
B.P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Annalen Der Physik, 529, 1600209, 2017](#)
- 184 Exploring the Sensitivity of Next Generation Gravitational Wave Detectors
B. P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration)
[Classical and Quantum Gravity, 34, 044001, 2017](#)
- 185 Friction and Wear Performance of Bearing Ball Sliding against Diamond-Like Carbon Coatings
SHENJIANG WU, HIROYUKI KOUSAKA, SATYANANDA KAR, DANGJUAN LI, and JUNHONG SU
Materials Research Express, 4, 015602, 2017
- 186 In-Plane and Out-Of-Plane Plasmons in Random Silver Nanoisland Films
MAHIMA ARYA, MUKESH RANJAN, MUKUL BHATNAGAR, RABINDRA NATH, ANIRBAN MITRA
[Plasmonics, 1-11, 2017](#)
- 187 Novel Lightning Strike-Protected Polymeric Composite for Future Generation Aviation
SURESH SHARMA, A. NIVETHA, A. MAALAVAN, K. SIVA SUBRAMANIAN, S. SREE KUMAR, MOHAN KUMAR PITCHAN, S. BHOWMIK, S. RAMANATHAN; R. RANE, and S. MUKHERJEE
[Journal of Aerospace Engineering, 30, 04016073, 2017](#)
- 188 Edge Transport and Fluctuation Induced Turbulence Characteristics in Early SST-1 Plasma
B. KAKATI, S. PRADHAN, J. DHONGDE, P. SEMWAL, K. YOHAN, M. BANAUDHA
[Fusion Engineering and Design, 115, 85, 2017](#)

- 189 Thermal Dynamics of Silver Clusters Grown on Rippled Silica Surfaces
MUKUL BHATNAGAR, MUKESH RANJAN, KENNY JOLLEY, ADAM LLOYD,
ROGER SMITH, SUBROTO MUKHERJEE
[Nuclear Instruments and Methods in Physics Research B, 393, 5, 2017](#)
- 190 Open Loop Control of Filament Heating Power Supply for Large Volume Plasma Device
R. SUGANDHI, P.K. SRIVASTAVA, A.K. SANYASI, PRABHAKAR SRIVASTAV, L.M.
AWASTHI, S.K. MATTOO
[Fusion Engineering and Design, 115, 49, 2017](#)
- 191 Formation of Annular Plasma Downstream By Magnetic Aperture in the Helicon Experimental
Device
SOUMEN GHOSH, S. YADAV, K. K. BARADA, P. K. CHATTOPADHYAY, J. GHOSH,
R. PAL, and D. BORA
[Physics of Plasmas, 24, 020703, 2017](#)
- 192 Transition from Single to Multiple Axial Potential Structures in Expanding Helicon Plasma
SOUMEN GHOSH, PRABAL K CHATTOPADHYAY, JOYDEEP GHOSH, D BORA
[Journal of Physics D Applied Physics, 50, 065201, 2017](#)
- 193 All-Sky Search for Short Gravitational-Wave Bursts In the First Advanced LIGO Run
B.P. ABBOTT, A. DASGUPTA, G. GAUR, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K.
SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review D, 95, 042003, 2017](#)
- 194 Behavior of Non-Thermal Electrons during ECR Pre-Ionization at Aditya Tokamak
SHISHIR PUROHIT, SHANKARA JOISA, MALAY BIKAS CHOWDHURI,
BRAJKISHORE SHUKLA, JAYESH RAVAL, RANJANA MANCHANDA, NILAM
RAMAIYA, UMESH NAGORA, PARVEEN ATREY, RAKESH TANNA,
KUMARPALSINH JADEJA, SHAILESH BHATT, CHETNARAYAN GUPTA, AJAI
KUMAR, JOYDEEP GHOSH and ADITYA TEAM
[Plasma and Fusion Research, 12, 2402002, 2017](#)
- 195 Communication: Low-Energy Free-Electron Driven Molecular Engineering: In Situ Preparation
of Intrinsically Short-Lived Carbon-Carbon Covalent Dimer of CO
DALY DAVIS and Y. SAJEEV
[Journal of Chemical Physics, 146, 081101, 2017](#)
- 196 Geodesic Acoustic Modes with Poloidal Mode Couplings Ad Infinitum
RAMESWAR SINGH and O. D. GURCAN
[Physics of Plasmas, 24, 022507, 2017](#)

- 197 Control of Intrinsic Defects in Lithium Niobate Single Crystal for Optoelectronic Applications
RAJEEV BHATT, INDRANIL BHAUMIK, SARVESWARAN GANESAMOORTHY,
RISCOB BRIGHT, MOHAMMAD SOHARAB, ASHWANI KUMAR KARNAL,
and PRADEEP KUMAR GUPTA
[Crystals, 7, 23, 2017](#)
- 198 Plasma Potential Measurement Using Centre Tapped Emissive Probe (CTEP) in Laboratory
Plasma
A.K. SANYASI, P.K. SRIVASTAVA and L.M. AWASTHI
[Measurement Science and Technology, 28, 2017](#)
- 199 Activation and Radioactive Waste Analysis for Survey X-Ray Crystal Spectrometer of ITER
P. V. SUBHASH, GUNJAN INDAULIYA, SAI CHAITANYA TADEPALLI, PRITI
KANTH, SHRICHAND JAKHAR, SANJEEV VARSHNEY, SIDDHARTH KUMAR,
RAJA KRISHNA, NIRAV BHALIYA, SAPNA MISHRA, P SHRISHAIL, VINAY KUMAR
[Fusion Science and Technology, 71, 215, 2017](#)
- 200 Interaction and Propagation Characteristics of Two Counter and Co-Propagating Mach Cones
in a Dusty Plasma
P. BANDYOPADHYAY, R. DEY, and A. SEN
[Physics of Plasmas, 24, 033706, 2017](#)
- 201 Experimental Observation of Self Excited Co-Rotating Multiple Vortices in a Dusty Plasma
with Inhomogeneous Plasma Background
MANGILAL CHOUDHARY, S. MUKHERJEE, and P. BANDYOPADHYAY
[Physics of Plasmas, 24, 033703, 2017](#)
- 202 Raman Spectroscopy of Laser Shocked Polystyrene
VINAY RASTOGI, S. CHAURASIA, USHA RAO, C. D. SIJOY, V. MISHRA,
MANMOHAN KUMAR, M. N. DEO, S. CHATURVEDI, SURINDER M. SHARMA
[Journal of Raman Spectroscopy, 48, 458, 2017](#)
- 203 Multi-Scale Computational Approach for Modelling Spallation at High Strain Rates in Single-
Crystal Materials
V.R.IKKURTHI, H. HEMANI, R. SUGANDHI, S. RAWAT, P. PAHARI, M. WARRIER, S.
CHATURVEDI
[Procedia Engineering, 173, 1177, 2017](#)
- 204 Nonlinear Effects in the Bounded Dust-Vortex Flow in Plasma
MODHUCHANDRA LAISHRAM, DEVENDRA SHARMA, PRABAL K.
CHATTOPADHYAY, and PREDHIMAN K. KAW
[Physical Review E, 95, 033204, 2017](#)

- 205 Doping-Induced Isotopic Mg₁₁B₂ Bulk Superconductor for Fusion Application
QI CAI, QIANYING GUO, YONGCHANG LIU, ZONGQING MA, HUIJUN LI, WENBIN QIU, DIPAK PATEL, HYUNSEOCK JIE, JUNG HO KIM, MEHMET SOMER, EKREM YANMAZ, ARNAUD DEVRED, VLADIMIR LUZIN, AMANULLAH FATEHMULLA, WAZIRZADA ASLAM FAROOQ, DANIEL GAJDA, YOSHIO BANDO, YUSUKE YAMAUCHI, SUBRATA PRADHAN and MD. SHAHRIAR A. HOSSAIN
[Energies, 10, 409, 2017](#)
- 206 Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run
B.P. ABBOTT, A. DASGUPTA, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review Letters, 118, 121102, 2017](#)
- 207 Calibration of the Advanced LIGO Detectors for the Discovery of the Binary Black-Hole Merger GW150914
B.P. ABBOTT, G. GAUR, M. K. GUPTA, Z. KHAN, A. K. SRIVASTAVA et al. (LIGO Scientific Collaboration)
[Physical Review D, 95, 062003, 2017](#)
- 208 Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run
B.P. ABBOTT, A. DASGUPTA, M. K. GUPTA, Z. KHAN, R. KUMAR, A. K. SRIVASTAVA, S. SUNIL, et al. (LIGO Scientific Collaboration and Virgo Collaboration)
[Physical Review Letters, 118, 121101, 2017](#)
- 209 Observation of Ion-Ion Counter Streaming Instability in Presheath-Sheath Region of a Mesh Grid Immersed in Low Temperature Plasma
VARA PRASAD KELLA, J. GHOSH, P. K. CHATTOPADHYAY, D. SHARMA, and Y. C. SAXENA
[Physics of Plasmas, 24, 032110, 2017](#)
- 210 Two Directional Fast Imaging of Plasma Plume in Variable Magnetic Field: Structure and Dynamics of the Plume in Diamagnetic and Non-Diamagnetic Limits
NARAYAN BEHERA, R. K. SINGH, V. CHAUDHARI, and AJAI KUMAR
[Physics of Plasmas, 24, 033511, 2017](#)
- 211 Destabilization of a Cylindrically Confined Electron Cloud by Impact Ionization of Background Neutrals: 2D3v PIC Simulation with Monte-Carlo-Collisions
M. SENGUPTA, R. GANESH
[Physics of Plasmas, 24, 032105, 2017](#)
- 212 Driven Phase Space Vortices in Plasmas with Nonextensive Velocity Distribution

PALLAVI TRIVEDI, RAJARAMAN GANESH

[Physics of Plasmas, 24, 032107, 2017](#)

- 213 On The Nonlinear Trapping Nature of Undamped, Coherent Structures in Collisionless Plasmas and Its Impact on Stability

HANS SCHAMEL, DEBRAJ MANDAL, and DEVENDRA SHARMA

[Physics of Plasmas, 24, 032109, 2017](#)

- 214 Study of Dynamical Behaviour of the Plasma in a Dc Non-Transferred Plasma Torch using Fast Imaging

VIDHI GOYAL, G. RAVI, P. BANDYOPADHYAY, S. BANERJEE, V. YUGESH, and S. MUKHERJEE

[Physics of Plasmas, 24, 033506, 2017](#)

Conference Papers 2016-17 (45)

1. Kinetic Simulation of Electron Transport Using Electron Magnethydrodynamic Structures

MASAYASU HATA, HITOSHI SAKAGAMI, and AMITA DAS

Journal of Physics: Conference Series, 688, 012027, 2016

2. Anomalous Inverse Bremsstrahlung Heating of Laser-Driven Plasmas

MRITYUNJAY KUNDU

[Journal of Physics: Conference Series, 717, 012068, 2016](#)

3. Thermal Contact Resistance Measurement of Conduction Cooled Binary Current Lead Joint Block in Cryocooler Based Self Field I-V Characterization Facility

ANANYA KUNDU, SUBRAT KUMAR DAS, ANEES BANO POOJA AGARWAL and SUBRATA PRADHAN

[AIP Conference Proceedings, 1731, 080082, 2016](#)

4. Elastic, Inelastic and Inclusive Alpha Cross Sections in $6\text{Li}+^{112}\text{Sn}$ System

D. CHATTOPADHYAY, S. SANTRA, A. PAL, A. KUNDU, B. K. NAYAK, K. MAHATA, K. RAMACHANDRAN, R. TRIPATHI, V. V. PARKAR, S. SODAYE, D. SARKAR, B. PANDEY and G. KAUR

[EPJ Web of Conferences, 117, 06022, 2016](#)

5. Mechanical Arrangement for Assembly of IWS Blocks to ITER Vacuum Vessel

GURLOVLEEN SINGH., H. A. PATHAK, JIGAR RAVAL

[Proceedings - Symposium on Fusion Engineering, 2016, 7482284, 2016](#)

6. Concurrent Construction on Evolving Design: ITER-India Experience and Lessons for Future S.P.

DESHPANDE, I. BANDYOPADHYAY, U.K. BARUAH, A.K. BHARDWAJ, A.K.

CHAKRABORTY, A. KUMAR, V. KUMAR, A. MUKHERJEE, S.B. PADASALAGI, H.A. PATHAK, S.L. RAO, B. SARKAR, RANJAY SHARAN
[Proceedings - Symposium on Fusion Engineering, 2016, 7482281, 2016](#)

7. Visual Inspection and Motion Control for In-vessel Tile Servoing Tasks in a Tokamak Vessel
BALAKRISHNAN, V., SENAPATHI, M., SRINIVAS, J.
[Proceedings - Symposium on Fusion Engineering, 2016, 7482325, 2016](#)
8. Effects of Mechanical Loads on ITER XRCS-Survey Sight-Tube
SIDDHARTH KUMAR, SANJEEV VARSHNEY, KUNAL BHATT, NIRAV BHALIYA, SHRISHAIL PADASALAGI, SAPNA MISHRA, P.V SUBHASH, VINAY KUMAR, ROBIN BARNESLEY, PHILIPPE BERNASCOLLE, JEAN-MARC DREVON
[Proceedings - Symposium on Fusion Engineering, 2016, 7482309, 2016](#)
9. Physics and Engineering Issues Associated With Increasing Beam Energy on the DIII-D Neutral Beam System
B. CROWLEY, J. RAUCH, J.T. SCOVILLE, S.K SHARMA, B. CHOKSI
[Proceedings - Symposium on Fusion Engineering, 2016, 7482269, 2016](#)
10. Lessons Learned During the Procurement of the ITER Steady State Electrical Network Components by the US Domestic Agency
C. NEUMEYER, J. DELLAS, J. HOURTOULE, A. DAS, S. NAIR
[Proceedings - Symposium on Fusion Engineering, 2016, 7482282, 2016](#)
11. Manufacturing Experience of Beam Dump for SPIDER Facility
H. PATEL, C. ROTTI, M.V. NAGARAJU, A. CHAKRABORTY, B. SCHUNKE, J. CHAREYRE, D. BOILSON, L. SVENSSON, M.DALLA PALMA, P. ZACCARIA, R. PASQUALOTTO, E. PFAFF, J. SCHAFER, C. ECKARDT
[Proceedings - Symposium on Fusion Engineering, 2016, 7482368, 2016](#)
12. Integration of Diagnostics on ITER
M. WALSH, V. KUMAR, et al
[Proceedings - Symposium on Fusion Engineering, 2016, 7482260, 2016](#)
13. Recent High Current Plasma Discharges Operations with Booster Power Supply Assisted Vertical Magnetic Field in Aditya Tokamak
C.N.GUPTA, KUNAL SHAH, M N.MAKWANA, R L TANNA, P.K.CHATTOPADHYAY, V.K.PATEL, V.K.PANCHAL, CHHAYA CHAVDA, S.B.BHATT, J GHOSH
[IEEE 26th Symposium on Fusion Engineering \(SOFE\), 16038990, 2016](#)
14. ECRH Assisted Plasma Experiments on Tokamaks SST-1 and Aditya

- B. K.SHUKLA, D.BORA, R.JHA, S.PRADHAN, JOYDEEP GHOSH, C.N.GUPTA, J.PATEL, RAJAN BABU, HARSHIDA PATEL, PRAGNESH DHORAJIA, R.TANNA, V.TANNA, P,K. ATREY, S. JOISA, S. B. BHATT, DHARMESH PUROHIT, P K CHATTOPADHYAYA, D. RAJU, PARESH PATEL, R. MANCHANDA, MANOJ GUPTA
[IEEE 26th Symposium on Fusion Engineering \(SOFE\), 16039052, 2016](#)
15. Design & Development of Electrical System for TWIN Source
 DEEPAK PARMAR, H. SHISHANGIYA, M.N. VISHNUDEV, M. BANDYOPADHYAY, R. YADAV, J. BHAGORA, S. SHAH, DASS SUDHIR, H. TYAGI, A. CHAKRABORTY, V. MAHESH, A. GAHLAUT, G. PARMAR, B. PRAJAPATI, J. SONI, R. PANDEY, G. BANSAL, K. PANDYA
[IEEE 26th Symposium on Fusion Engineering \(SOFE\), 16039001, 2016](#)
16. Indian Test Facility (INTF) - A Status Update
 A. CHAKRABORTY, U BARUAH, M. BANDYOPADHYAY, J BHAGORA, M BHUYAN, DASS SUDHIR, J JOSHI, K JOSHI, M V NAGARAJU, D PARMAR, H PATEL, M PATEL, S PILLAI, G ROOPESH, C. ROTTI, S SHAH, H SHISHANGIYA, D SINGH, N P SINGH, H TYAGI, M VISHNUDEV, A YADAV, R YADAV, G. BANSAL, A. GAHLAUT, V MAHESH, H MISTRY, R PANDEY, K PANDYA, K PARMAR, K PATEL, B PRAJAPATI, D SHARMA, J SONI
[IEEE 26th Symposium on Fusion Engineering \(SOFE\), 16038992, 2016](#)
17. Fabrication of Tungsten & Tungsten Alloy and its High Heat Load Testing for Fusion Applications
 S. KANPARA, S. KHIRWADKAR, S. BELSARE, K. BHOPE, R. SWAMY, Y. PATIL, P. MOKARIYA, N. PATEL, T. PATEL, K. GALODIYA
[Materials Today: Proceedings, 3, Part B, 3055, 2016](#)
18. Study of Diffusion Bonding of WL10 to SS Joining with and without Titanium Interlayer using Thermo Mechanical Simulator
 K.PREMJI SINGH, ALPESH PATEL, KEDAR BHOPE, NIKUNJ PATEL, S.S. KHIRWADKAR
[Materials Today: Proceedings, 3, 2962-2970, 2016](#)
19. Data Transfer Methods in Real Time Controller of Ion Cyclotron High Voltage Power Supply
 H. DHOLA, A. PATEL, R. DAVE, A. THAKAR, D. PARMAR, K. MEHTA, N. GOSWAMI, N. P. SINGH, S. GAJJAR, U. K. BARUAH
[IEEE-NPSS Real Time Conference \(RT\), Padova, Italy, Pages 1 - 3, 2016](#)
20. Design and Simulation of Metamaterial Loaded Substrate Integrated Waveguide Fed Patch Antenna for X-Band Military Application
 ASHOK KUMAR, GARIMA SAINI, SHAILENDRA SINGH
 International Conference on Wireless Communications,
[Signal Processing and Networking \(WiSPNET\), Chennai, pages 550-554, 2016](#)

21. A Novel Design of Convex Hexagonal Dielectric Resonator Antenna with Parasitic Plate
PRAMOD KUMAR, SANTANU DWARI, N. K. AGRAWAL, SHAILENDRA SINGH, JITENDRA KUMAR
[International Conference on Wireless Communications, Signal Processing and Networking \(WiSPNET\), Chennai, pages 547-549, 2016](#)
22. IOT Application for Real-Time Monitor of PLC Data using EPICS
RAMESH JOSHI, H M JADAV, ANIRUDDH MALI, S V KULKARNI
[International Conference on Internet of Things and Applications \(IOTA\), Pune, Pages 68 - 72, 2016](#)
23. Measurement of Outgassing Rate for GTAW Welded SS304 Materials
MOHSIN BUKHARI, SAMIRAN MUKHERJEE, PARESH PANCHAL, RANJANA GANGRADEY, AJIT KUMAR SHUKLA
[IOP Conference Series: Materials Science and Engineering, 149, 12027, 2016](#)
24. Efficient Implementation of Empirical Mode Decomposition in FPGA Using Xilinx System Generator
A. AMALIN PRINCE, SRIRAM GANESH, PRAKHAR KUMAR VERMA, PHILIP GEORGE, DANIEL RAJU
[42nd Annual Conference of the IEEE Industrial Electronics Society \(IECON 2016\), Italy, 23-26 October 2016](#)
25. Tungsten Deposition on Graphite Using Plasma Enhanced Chemical Vapour Deposition
UTTAM SHARMA, SACHIN S CHAUHAN, JAYSHREE SHARMA, A K SANYASI, J GHOSH, K K CHOUDHARY and S K GHOSH
[Journal of Physics: Conference Series, 755, 012010, 2016](#)
26. Study of Trapped Particle Nonlinearity in Ion Acoustic Solitary Wave using Vlasov Simulation
DEBRAJ MANDAL and DEVENDRA SHARMA
[Journal of Physics: Conference Series, 759, 1, 12068, 2016](#)
27. Strongly Correlated Classical Plasmas under External Forcing and Dissipation - An Example Using Molecular Dynamics
HARISH CHARAN and RAJARAMAN GANESH
[Journal of Physics: Conference Series, 759, 1, 12061, 2016](#)
28. Development of Power Supply for Atmospheric Pressure Plasma Jet at Room Temperature for Bio-Medical Applications
S.C.DAS, A. MAJUMDAR, S. MUKHERJEE, S. KATIYAL, T. SHRIPATHI

Proceedings of the 10th INDIACom; 2016 3rd International Conference on Computing for Sustainable Global Development, INDIACom 2016, 1207-1209, 2016

29. LabVIEW Event Handling using EPICS PV for ICRH DAC Software
RAMESH JOSHI¹, H M JADAV, ANIRUDDH MALI AND S.V. KULKARNI
[2016 International Conference on Advances in Computing, Communications and Informatics \(ICACCI\), 1177-1180, 2016](#)
30. Design, Analyses, Fabrication and Characterization of Nb₃Sn Coil in 1 W Pulse Tube Cryocooler
ANANYA KUNDU, SUBRAT KUMAR DAS, ANEES BANO, NITISH KUMAR and SUBRATA PRADHAN
IOP Conference Series: Materials Science and Engineering, 171, 012106, 2017
31. Performance of Superconducting Current Feeder System for SST-1
A. GARG, H. NIMAVAT, P. SHAH, K. PATEL, D. SONARA, G.L.N. SRIKANTH, N. BAIRAGI, D. CHRISTIAN, R. PATEL, G. MAHESURIA, R. PANCHAL, P. PANCHAL, R. SHARMA, G. PURWAR, G. K. SINGH, V. L. TANNA and S. PRADHAN
[IOP Conference Series: Materials Science and Engineering, 171, 012053, 2017](#)
32. Experimental Results of ITER Cold Circulators towards the Performance Demonstration
R. BHATTACHARYA, H. VAGHELA, B. SARKAR, P. PATEL, J. DAS, M. SRINIVASA, T. ISONO, and K. KAWANO
[IOP Conference Series: Materials Science and Engineering, 171, 012058, 2017](#)
33. Design of ITER Relief Lines
N. SHAH, K. CHOUKEKAR, M. JADON, B. SARKAR, B. JOSHI, H. KANZARIA, V. GEHANI, H. VYAS, U. PANDYA, R. PANJWANI, S. BADGUJAR, and E. MONNERET
[IOP Conference Series: Materials Science and Engineering, 171, 012056, 2017](#)
34. Process Optimization of Helium Cryo Plant Operation for SST-1 Superconducting Magnet System
P. PANCHAL, R. PANCHAL, R. PATEL, G. MAHESURIYA, D. SONARA, L.N. SRIKANTH G, A. GARG, D. CHRISTIAN, N. BAIRAGI, R. SHARMA, K. PATEL, P. SHAH, H. NIMAVAT, G. PURWAR, J. PATEL, V. TANNA and S. PRADHAN
[IOP Conference Series: Materials Science and Engineering, 171, 012024, 2017](#)
35. Experimental Investigation of Two-Phase Nitrogen Cryo Transfer Line
G. K. SINGH, H. NIMAVAT, R. PANCHAL, A. GARG, G.L.N. SRIKANTH, K. PATEL, P. SHAH, V. L. TANNA and S. PRADHAN
IOP Conference Series: Materials Science and Engineering, 171, 012061, 2017
36. Cryogenic Heat Loads Analysis from SST-1 Plasma Experiments
N. BAIRAGI, V. L. TANNA and S. PRADHAN

[IOP Conference Series: Materials Science and Engineering, 171, 012060, 2017](#)

37. Status of ITER Cryodistribution and Cryoline Project

B. SARKAR, H. VAGHELA, N. SHAH, R. BHATTACHARYA, K. CHOUKEKAR, P. PATEL, H. KAPOOR, M. SRINIVASA, H. S. CHANG, S. BADGUJAR, and E. MONNERET

[IOP Conference Series: Materials Science and Engineering, 171, 012057, 2017](#)

38. Design and Fabrication of Indigenous 30 kA Nb₃Sn CICC for Fusion Relevant Superconducting Magnet

P. RAJ, M. GHATE, S. PRADHAN, A. SINGH, and M. M. HUSSAIN

[IOP Conference Series: Materials Science and Engineering, 171, 012109, 2017](#)

39. Acceptance Tests and Their Results for 1st Pre-Series Cryoline (PTCL) Of ITER

H. KAPOOR, A. GARG, N. SHAH, S. MURALIDHARA, K. CHOUKEKAR, B. DASH, V. GAUR, S. MADEENAVALLI, P. PATEL, U. KUMAR, M. JADON, V. SHUKLA, B. SARKAR, Y. SARVAIYA, D. MUKHERJEE, A. DUTTA, KV. MURUGAN, S. GAJERA, B. JOSHI and R. PANJWANI

[IOP Conference Series: Materials Science and Engineering, 171, 012054, 2017](#)

40. Development of Indigenous Insulation Material for Superconducting Magnets and Study of its Characteristics under Influence of Intense Neutron Irradiation

RAJIV SHARMA, V. L. TANNA, C.V.S. RAO, MITUL ABHANGI, SUDHIRSINH VALA, SUNDARAVEL, S. VARATHARAJAN, S. SIVAKUMAR, K. SASI, and S. PRADHAN

[IOP Conference Series: Materials Science and Engineering, 171, 012149, 2017](#)

41. Validation Test of Fusion Grade Superconductors

U PRASAD, S PRADHAN, P RAJ, P VARMORA, A PANCHAL, A BANO and M GHATE

[IOP Conference Series: Materials Science and Engineering, 171, 012150, 2017](#)

42. Assembly Installation Studies for the ITER Cryoline System

S BADGUJAR, N SHAH, A FORGEAS, N NAVION-MAILLOT, E MONNERET, D GRILLOT, L BENKHEIRA and B SARKAR

[IOP Conference Series: Materials Science and Engineering, 171, 012051, 2017](#)

43. Measurement of Thermal Conductivity of Materials Down To 4.5 K for Development of Cryosorption Pumps

RAVI VERMA, UPENDRA BEHERA, S KASTHURIRENGAN, N C SHIVAPRAKASH, S S UDGATA and R GANGRADEY

[IOP Conference Series: Materials Science and Engineering, 171, 012098, 2017](#)

44. Design and Implementation of Electromagnetic Diagnostics Electronics in SST-1 Tokamak

PRAVEENLAL EDAPPALA, CHANDRESH HANSALIA, RACHANA RAJPAL, HITESH MANDALIYA, VISMAY RAULJI, SAMEER KUMAR, RAJU DANIEL

[International Conference on Advances in Electrical, Electronic and Systems Engineering \(ICAEES\), Malaysia, 14-16 November 2016, Article no.7888090, 2017](#)

45. Design and Multiphysics Analysis of a High Power RF Window for LHCD System of Tokamaks
YOGESH M. JAIN, P. K. SHARMA, HARISH V. DIXIT, AVIRAJ JADHAV, PRAMOD PARMAR
[Progress in Electromagnetics Research Symposium, 2017, 2888, 2017](#)

Book Chapters 2016-17 (3)

1. Investigation of the Effect of Thermal Cycle on SS/CRZ Brazed Joint Sample K.P SINGH, ALPESH PATEL, KEDAR BHOPE, S BELSARE, NIKUNJ PATEL, PRAKASH MOKARIA, S.S KHIRWADKAR
[Plasma and Fusion Science from Fundamental Research to Technologies Applications, Apple Academic Press, CRC Press, October 2016, ISBN: 9781771884532 \(Book Chapter\)](#)
2. CFD Study on Thermal Hydraulic Performance of a Wavy Channel Based PCHE Model
A.M. ANEESH, ATUL SHARMA, ATUL SRIVASTAVA and PARITOSH CHAUDHURI
Fluid Mechanics and Fluid Power-Contemporary Research, Proceedings of the 5th International and 41st National Conference on FMFP 2014 (Lecture Notes in Mechanical Engineering),
[pp 497-506, Springer, October 2016, ISBN: 9788132227410 \(Book Chapter\)](#)
3. Thermo-Hydraulic Performance of Zigzag, Wavy, and Serpentine Channel Based PCHEs
A.M. ANEESH, ATUL SHARMA, ATUL SRIVASTAVA and PARITOSH CHAUDHURI
Fluid Mechanics and Fluid Power-Contemporary Research, Proceedings of the 5th International and 41st National Conference on FMFP 2014 (Lecture Notes in Mechanical Engineering),
[pp.507-516, Springer, October 2016, ISBN:9788132227410 \(Book Chapter\)](#)