

RESEARCH REPORTS (RR) 1985-2018

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1. DEPENDENCE OF STRIKING CHARACTERISTICS OF PLASMA DISCHARGE OF FILAMENT
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PPP/RR-01/85 (SEPTEMBER, 1985)
2. FORMATION OF A COMPACT TORUS BY A ROTATING RELATIVISTIC ELECTRON BEAM.
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3. FEEDBACK CONTROL OF FLUTE INSTABILITY IN MIRROR BY NEUTRAL BEAM
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4. ON THE SCRAPE OFF LAYERS IN A CURRENTLESS TOROIDAL PLASMA
VENKATRAMANI, N., MATTOO, S.K.
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5. STABILISATION OF DRIFT CYCLOTRON LOSS CONE INSTABILITY BY LOWER HYBRID WAVES IN
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6. PLASMA INJECTION ACROSS TOROIDAL MAGNETIC FIELD.
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PPP/RR-06/85 (DECEMBER, 1985)
7. STUDY ON THE CONTAMINATION OF A UHV SYSTEM DUE TO BREAK IN POWER SUPPLY
PATHAK, H.A., BHATT, S.B., VENKATARAMANI, N.
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8. EFFECTS OF RF FIELD ON TOROIDAL PLASMA PARAMETERS.
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9. AN EXACT EVALUATION OF THE TRANSMITTED AMPLITUDE FOR A FABRY-PEROT
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10. EXPLOSIVE INSTABILITIES IN MIRROR.
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11. OBSERVATIONS ON PERIOD DOUBLING PHENOMENA IN A BASIC PLASMA EXPERIMENT
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12. BEAM INDUCED BURSTING INSTABILITIES IN MIRROR MACHINES

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13. ON TEMPORAL EXCHANGE CORRELATIONS

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14. STARTUP MODELLING OF ADITYA TOKAMAK

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15. RUNAWAY DURING TOKAMAK STARTUP

SHARMA, A.S., JAYAKUMAR, R.

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16. RADIO FREQUENCY STABILIZATION OF IDEAL BALLOONING MODES IN A TOKAMAK PLASMA

SEN, A., KAW, P.K., SUNDARAM, A.K.

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17. NONLOCAL THEORY OF RESISTIVE HOSE INSTABILITY OF A BEAM WITH A BENNET PROFILE

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18. KINETIC THEORY OF THE $m = 1$ KINK INSTABILITY IN Z-PINCHES

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20. IMPURITY DURING THE STARTUP PHASE OF TOKAMAKS

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21. SCALING OF PLASMA THRESHOLD DENSITY FOR MARFE

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22. BALLOONING STABILITY OF A TOROIDALLY ROTATING PLASMA

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23. PLASMA DENSITY MEASUREMENT USING A SIMPLE MICROWAVE TECHNIQUE

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24. CHARACTERISTICS OF TOROIDAL RELAXED STATE OF REVERSED FIELD PINCHES AND

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25. GLOBAL VORTICES IN ROTATING PURE ELECTRON PLASMAS

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26. ON A NEW CLASS OF QUADRATIC INVARIANT FOR MAGNETOFLUIDS

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27. RELAXATION DURING CURRENT PENETRATION PHASE OF TOKAMAKS
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28. PROFILE CONSISTENCY AND ENERGY CONFINEMENT IN TOKAMAKS
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30. FUSION POWER: SCENARIO FOR ITS REALISATION
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31. MODEL EQUATION FOR AN CHAOTIC TIME SERIES
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32. A NONLINEAR KINETIC THEORY OF THE FREE ELECTRON LASER
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33. HIGH FREQUENCY SURFACE HELICITY INJECTION IN TOROIDS WITH MOVING BOUNDARIES
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34. CONTROL OF TOKAMAK EDGE FLUCTUATIONS
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35. ADITYA: INITIAL RESULTS AND STATUS OF EDGE CONTROL EXPERIMENTS
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36. FLUCTUATIONS IN TOKAMAK EDGE PLASMA
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37. MARFES RADIATIVE CONDENSATION AND BALLOONING INSTABILITIES IN TOKAMAKS
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38. PAPERS PRESENTED AT NATIONAL PLASMA SCIENCE SYMPOSIUM, DEC 4-8, 1990, JADAVPUR,
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39. SHEAR INSTABILITY AND ENTROPY GENERATION IN HEAVY ION COLLISIONS
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40. ON TOROIDAL EQUILIBRIUM OF NON-NEUTRAL PLASMA
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41. STABILITY OF ROTATING PLASMAS TO RIGID DISPLACEMENTS
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42. STUDIES OF A LOW GAIN TOKAMAK FUSION BREEDER
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43. SHORT SCALE RADIATIVE CONDENSATION INSTABILITIES IN TOKAMAK
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44. AXISYMMETRIC TOROIDAL EQUILIBRIUM WITH INCOMPRESSIBLE FLOWS
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45. TOROIDAL EQUILIBRIUM OF NON-NEUTRAL PLASMA WITH INERTIA
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46. LOW ASPECT RATIO OF TOROIDAL EQUILIBRIA OF ELECTRON CLOUDS
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47. SPECTRAL CHARACTERISTICS OF FLUCTUATIONS IN LABORATORY
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48. CHAOS IN YANG-MILLS-HIGGS SYSTEMS
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51. EFFECTS OF SHEARED TOROIDAL FLOW ON THE EQUILIBRIUM OF AN
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52. FLUCTUATION IN THE EDGE REGION OF 'ADITYA' TOKAMAKS
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53. FEEDBACK STABILIZATION OF TEARING MODES USING MODULATED
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- SEN, A., SEN, A.K., KAW, P.K., SINGH, R.
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54. AN ANALYSIS OF BOOTSTRAP CURRENT DRIVEN TOKAMAKS WITH UNUSUAL Q-PROFILES
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55. CERENKOV EMISSION FROM AN AXIAL-WIGGLER MAGNETOACTIVE PLASMA
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56. INTENSE LASER PULSE PROPAGATION IN A PLASMA
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57. INSTABILITY OF ELLIPTICAL VORTEX CORES IN ELECTRON CLOUDS
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58. ON THE IMPOSSIBILITY OF PLASMA EQUILIBRIA WITH FLOW IN MAGNETIC FIELDS HAVING ONLY A TOROIDAL COMPONENT
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59. WAVE PARTICLE INTERACTION ASSOCIATED WITH ION ACOUSTIC RAREFACTIVE PULSE
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61. THE EVOLUTION OF SLIGHTLY NON-IDEAL, NON-NEUTRAL PLASMA
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62. NONLINEAR THEORY OF $l=1$ DICOTRON MODE
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63. OBSERVATION OF IMPROVED BEHAVIOR BY ELECTRODE BIASING OF A TOROIDAL PLASMA HAVING NO POLOIDAL MAGNETIC FIELD
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64. STABILITY OF TOROIDAL NON-NEUTRAL PLASMA WITH ELONGATED CROSS-SECTION TO RIGID DISPLACEMENTS
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65. STABILIZATION OF NIELSEN-OLESEN INSTABILITY IN QUARK GLUON PLASMA
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66. SOME STATIONARY SOLUTIONS OF TWO FLUID MHD EQUATIONS
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67. SOME EQUILIBRIUM CHARACTERISTICS OF STRONG ION SHEATHS
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68. SOLITON SOLUTIONS FOR FREE ELECTRON LASER APPLICATIONS
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69. BRILLOUIN LIMIT IN CYLINDERS AND TORUS WITH SHAPED CROSS-SECTIONS
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75. PHYSICS OF TOROIDAL ELECTRON CLOUDS
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76. NON-ABELIAN SCREENING AND COLOUR OSCILLATIONS IN A QUARK GLUON PLASMA
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77. TEMPERATURE GRADIENT INSTABILITIES DRIVEN BY PONDEROMOTIVE EFFECTS
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78. PAPERS PRESENTED AT ICPP, INNSBRUCK, AUSTRIA, JUNE 1992 and AT SYMP. ON DOUBLE LAYERS AND OTHER NONLINEAR POTENTIAL STRUCTURES IN PLASMAS, INNSBRUCK, AUSTRIA, JUNE 1992
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80. EFFECTS OF RIGID ROTATION ON THE STABILITY TO EXTERNAL KINK-MODES

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81. TOKAMAK REACTORS WITH REDUCED ALPHA PARTICLE CONFINEMENT CHATURVEDI, SHASHANK

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87. COLLECTIVE EFFECTS DUE TO CHARGE FLUCTUATION DYNAMICS IN A DUSTY PLASMA

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88. HIGH VOLTAGE FOUNTAIN AND HIGH VOLTAGE FAN: THE NOVEL EXPERIMENTS FOR

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90. A STEADY THEOREM FOR TOROIDAL NON-NEUTRAL PLASMA

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91. A ONE-D MODEL FOR RADIATIVE THERMAL EQUILIBRIUM AND STABILITY OF THE TOKAMAK
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95. AN ACCELERATOR FOR ALKALI METAL PLASMA
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102. POLOIDAL PLASMA ROTATION AND FLUCTUATION BEHAVIOR IN A TOROIDAL PLASMA
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- 103.OBSERVATION OF INTERMITTENT STRUCTURES ASSOCIATED WITH THE LOW FREQUENCY
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- 104.RESISTIVE STABILITY OF MAGNETOHYDRODYNAMIC EQUILIBRIA WITH FLOW
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- 107.STUDY OF LOW-FREQUENCY FLUTE TYPE COHERENT FLUCTUATIONS IN A TOROIDAL PLASMA
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- 115.INFLUENCE OF GRAIN CHARGE FLUCTUATION DYNAMICS ON COLLECTIVE MODES IN A MAGNETIZED DUSTY PLASMA
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- 116.STUDIES ON NONLINEAR MATHIEU AND HILL EQUATION

- DAS, AMITA, KAW, PREDHIMAN
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117. ANOMALOUS RELAXATION OF STABLE NON-MAXWELLIAN ELECTRON VELOCITY DISTRIBUTIONS IN ONE DIMENSIONAL ELECTROSTATIC SHEET MODEL SIMULATIONS
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118. RAYLEIGH-TAYLOR VORTICES AND THEIR STABILITY IN MAGNETIZED PLASMA
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119. RESONANT DIODOTRON INSTABILITY IN A NONNEUTRAL PLASMA WITH FINITE MASS
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128. GLOW DISCHARGE WALL CONDITIONING OF TOKAMAK ADITYA
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318.ELECTRON BERNSTEIN WAVE GENERATION IN A LINEAR PLASMA SYSTEM

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330. COMPUTATION OF GROWTH RATES AND THRESHOLD OF
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- 336.STRIATIONS IN SURFACE WAVE DRIVEN PLASMA COLUMN
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- 337.CHARACTERISTICS OF SURFACE WAVE IN A CYLINDRICAL PLASMA
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340. EDGE AND SCRAPE-OFF LAYER TOKAMAK PLASMA TURBULENCE
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- 341.TOMOGRAPHY FOR SST-1 TOKAMAK WITH PIXEL METHOD
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343. A STUDY OF PRECIPITATION HARDENED CU:BE:CO ALLOY
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346. NANOSECOND RISE-TIME AIR-CORE CURRENT TRANSFORMER FOR LONG-PULSED CURRENT MEASUREMENT

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348. CHARACTERIZATION OF ATMOSPHERIC PRESSURE GLOW DISCHARGE IN HELIUM USING LANGMUIR PROBE,

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350. FLUID SIMULATION STUDIES OF THE DYNAMICAL BEHAVIOUR OF ONE DIMENSIONAL RELATIVISTIC

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VIKRANT SAXENA, AMITA DAS, ABHIJIT SEN AND PREDHIMAN KAW

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351. EFFECTS OF ALTERNATING FILAMENT HEATER CURRENT ON THE OPERATION OF A MAGNETIC MULTICUSP

SOURCE

S. SURESH, V. TRIPATHI, M. BANDYOPADHYAY, G.B. PATEL, R. ONALI, M.J. SINGH, JANRDAN, U.K. BARUAH AND

S.K. MATTOO

IPR/RR-351/2005 (DECEMBER, 2005)

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352. OBSERVATION OF COUPLED WHISTLER-ELECTRON TEMPERATURE GRADIENT TURBULENCE IN A HIGH

BETA PLASMA

L.M. AWASTHI, S.K. MATTOO, R. JHA, R. SINGH AND P.K. KAW

IPR/RR-352/2006 (JANUARY, 2006)

353. COMMISSIONING OF 3.7 GHZ LHCD SYSTEM ON ADITYA TOKAMAK & SOME INITIAL RESULTS

P.K. SHARMA, S.L. RAO, D. BORA, R.G. TRIVEDI, K. MISHRA, K. AMBULKAR, M.K. GUPTA, J. PATEL, R.

KRISHNA KUMAR, P.R. PARMAR, A. THAKUR, C. VIRANI, H.K.B. PANDYA, S. JAKHAR, C.V.S. RAO, RF GROUP

AND ADITYA TEAM

IPR/RR-353/2006 (APRIL, 2006)

354. SELF CONSISTENT 2-D MHD SIMULATIONS FOR THE COMPRESSION PHASE OF AN MTF SYSTEM BASED

- ON INVERSE Z-PINCH
P.V. SUBHASH, S. MADHAVAN AND S. CHATURVRDI
IPR/RR-354/2006 (APRIL, 2006)
355. AN EXTREMELY LARGE BETA (ELB) LABORATORY PLASMA
S.P. BANERJEE, ANITHA V.P., G. RAVI AND S.K. MATTOO
IPR/RR-355/2006 (APRIL, 2006)
356. ANALYSIS OF TOKAMAK DATA USING A NOVEL HILBERT TRANSFORM
BASED TECHNIQUE
R. JHA, D. RAJU AND A. SEN
IPR/RR-356/2006 (APRIL, 2006)
357. EFFECTS OF LASER FLUENCE AND AMBIENT PRESSURES ON THE
TEMPORAL EVOLUTION OF CII LINES IN LASER
BLOW OFF MULTI-LAYERED LIF-C THIN FILM
AJAI KUMAR, R.K. SINGH, S. SUNIL, K.P. SUBRAMANIAN, B.G. PATEL AND I.
A. PRAJAPATI
IPR/RR-357/2006 (MAY, 2006)
358. ZERO - DIMENSIONAL MODEL FOR MAGNETIC CURVATURE DRIVEN
RAYLEIGH TAYLOR TURBULENCE
SIMULATIONS
SARVESHWAR SHARMA, AMITA DAS, PREDHIMAN KAW AND ABHIJIT SEN
IPR/RR-358/2006 (JUNE, 2006)
359. EFFECTS OF HYDROGEN ON METALLIC CATHODE SURFACE IN GLOW
DISCHARGE PLASMA
K.S. SURAJ, P. BHARATHI, V. PRAHLAD AND S. MUKHERJEE
IPR/RR-359/2006 (JUNE, 2006)
360. OVERVIEW OF SOFT X-RAY TOMOGRAPHY TECHNIQUE FOR MHD
INSTABILITY STUDY IN SST-1 TOKAMAK
ASIM KUMAR CHATADHYAY AND C.V.S RAO
IPR/RR-360/2006 (JULY, 2006)
361. PHOTOEMISSION AND OPTICAL REFLECTANCE SPECTROSCOPY OF SIOXNY
?THICK FILMS ON SI(100)
C. JARIWALA, P. KIKANI, H. TRIVEDI, S.K. NEMA, P.M. RAOLE, K.R. MURALI,
A. CHAINANI AND P.I. JOHN
IPR/RR-361/2006 (JULY, 2006)
362. DEPOSITION OF SUPERHYDROPHOBIC NANO STRUCTURED TEFLON-LIKE
COATING USING EXPANDING PLASMA ARC
A. SATYAPRASAD, V. JAIN AND S.K. NEMA
IPR/RR-362/2006 (JULY, 2006)
363. THEORETICAL STUDY OF FCC-HCP PHASE COEXISTENCE AND PHASE
TRANSITIONS IN A1 BY FP-LAPW METHOD WITH GGA FOR EXCHANGE AND
CORRELATION
VINAYAK MISHRA AND S. CHATURVEDI
IPR/RR-363/2006 (AUGUST, 2006)
364. ECR DISCHARGES USING LHCD SYSTEM ON ADITYA
P.K. SHARMA, S.L. RAO, K. MISHRA, R.G. TRIVEDI, D. BORA, LHCD GROUP
AND ADITYA GROUP
IPR/RR-364/2006 (AUGUST, 2006)
365. SURFACE MODIFICATION OF ANGORA RABBIT FIBERS USING DIELECTRIC
BARRIER DISCHARGE
N. DANISH, M.K. GARG, R.S. RANE, P.B. JHALA AND S.K. NEMA

- IPR/RR-365/2006 (SEPTEMBER, 2006)
366.COMPARISON OF WAVE PROPAGATION STUDIES IN PLASMAS USING 3-D
FDTD AND RAY TRACING METHODS
BHASKAR CHAUDHURY AND SHASHANK CHATURVEDI
IPR/RR-366/2006 (OCTOBER, 2006)
367.ROLE OF AMBIENT GAS AND LASER FLUENCE IN GOVERNING THE
DYNAMICS OF THE PLASMA PLUMES PRODUCED BY LASER-BLOW-OFF OF LIF-
C THIN FILM
R.K. SINGH, AJAI KUMAR, B.G. PATEL AND K.P. SUBRAMANIAN
IPR/RR-367/2006 (NOVEMBER, 2006)
368.EFFECT OF EDDY CURRENTS ON THE MAGNETIC NULL DURING SST-1
STARTUP
CHANDAN DANANI AND SHISHIR DESHPANDE
IPR/RR-368/2006 (DECEMBER, 2006)

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369. ROLE OF CURRENT SHEAR DRIVEN TURBULENCE IN ANOMALOUS SPING
OF ENERGETIC ELECTRONS
NERAJ JAIN, AMITA DAS, PREDHIMAN KAW AND SUDIP SENGUPTA
IPR/RR-369/2007 (JANUARY, 2007)
370.A NEW DIAGNOSTIC TO CHARACTERIZE A PLASMA CRYSTAL
P. BANDYOPADHYAY, B.M. ANNARATONE, M. CHAUDHURI AND G.E.
MORFILL
IPR/RR-370/2007 (JANUARY, 2007)
371. FLOW DYNAMICS OF PLUME GENERATED BY LASER BLOW OFF OF LIF-C
FILM USING ION PROBE TECHNIQUE
R.K. SINGH AND AJAI KUMAR
IPR/RR-371/2007 (JANUARY, 2007)
372. REJECTION OF ELECTROSTATIC PICKUP USING A DUAL ROGOWSKI COIL
SYSTEM FOR LOW PLASMA CURRENT
MEASUREMENT
MANASH KUMAR PAUL, P.K. CHATADHYAY AND D. BORA
IPR/RR-372/2007 (JANUARY, 2007)
373. WAVE INDUCED BARRIER TRANSPARENCY AND MELTING OF QUASI-
CRYSTALLINE STRUCTURES IN TWO
DIMENSIONAL PLASMA
AMITA DAS
IPR/RR-373/2007 (JANUARY, 2007)
374.INTRINSIC ROTATION AND ELECTRIC FIELD SHEAR
O.D. GURCAN, P.H. DIAMOND, T.S. HAHM AND R. SINGH
IPR/RR-374/2007 (FEBRUARY, 2007)
375.ON MECHANISM OF ELM MITIGATION BY EXTERNAL MAGNETIC FIELD
PERTURBATIONS
M.Z. TOKAR, T.E. EVANS, A. GUPTA, R. SINGH, P.K. KAW AND R.C. WOLF
IPR/RR-375/2007 (FEBRUARY, 2007)
376. CHARACTERIZATION OF THE NON-RESONANT CURRENT DRIVE REGIME
OF HELICON WAVE GENERATED PLASMA
USING LANGMUIR PROBE
MANASH KUMAR PAUL AND DHIRAJ BORA
IPR/RR-376/2007 (FEBRUARY, 2007)

377. PULSED MOLECULAR BEAM INJECTION EXPERIMENTS ON ADITYA FOR UNDERSTANDING PHYSICS OF DENSITY LIMITS
P.K. ATREY, S.B. BHATT, N. BISAI, D. BORA, S.P. DESHPANDE, P.N. GUZDAR, R. JHA, Y. SHANKAR JOISA, P.K. KAW, AJAI KUMAR, A. MUKHERJEE, D. RAJU, C.V.S. RAO, R. SINGH, P. VASU, Y.C. SAXENA AND ADITYA TEAM
IPR/RR-377/2007 (FEBRUARY, 2007)
378. SPACE AND TIME RESOLVED VISIBLE-EMISSION SPECTROSCOPY OF ADITYA-TOKAMAK DISCHARGES USING MULTI-TRACK SPECTROMETER
SANTANU BANERJEE, VINAY KUMAR, M.B. CHOWDHURI, J. GHOSH, R. MANCHANDA, KETAN M. PATEL AND P. VASU
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379. NONLINEAR EXCITATION OF GEODESIC ACOUSTIC MODES BY DRIFT WAVES
N. CHAKRABARTI, R. SINGH, P.K. KAW AND P. N. GUZDAR
IPR/RR-379/2007 (MARCH, 2007)
380. EXPERIMENTAL OBSERVATION OF STRONG COUPLING EFFECTS ON THE DISPERSION OF DUST ACOUSTIC WAVE IN A PLASMA
P. BANDYOPADHYAY, G. PRASAD, A. SEN AND P.K. KAW
IPR/RR-380/2007 (APRIL, 2007)
381. CYLINDRICAL STATIONARY STRIATIONS IN SURFACE WAVE PRODUCED PLASMA COLUMNS OF ARGON
RAJNEESH KUMAR, SANJAY V. KULAKARNI AND DHIRAJ BORA
IPR/RR-381/2007 (APRIL, 2007)
382. ABEL INVERSION USING BESSEL FUNCTION AS RADIAL BASIS FUNCTION FOR SPARSE SPECTROSCOPIC DATA
ASIM KUMAR CHATADHYAY
IPR/RR-382/2007 (APRIL, 2007)
383. WAVE-INDUCED HELICITY CURRENT DRIVE BY HELICON WAVES
MANASH KUMAR PAUL AND DHIRAJ BORA
IPR/RR-383/2007 (APRIL, 2007)
384. MOLECULAR DYNAMICS SIMULATION OF CARBON NANOTUBES INTERACTING WITH A GRAPHITE SURFACE
S. NEGI, M. WARRIER, S. CHATURVEDI AND K. NORDLUND
IPR/RR-384/2007 (APRIL, 2007)
385. SRS INDUCED BREAK UP OF NONLINEAR 1D LASER PULSE SOLITONS IN A PLASMA
VIKRANT SAXENA, AMITA DAS, SUDIP SENGUPTA, PREDHIMAN KAW AND ABHIJIT SEN
IPR/RR-385/2007 (APRIL, 2007)
386. EFFECTS OF THE POROUS STRUCTURE OF GRAPHITE ON ATOMIC HYDROGEN DIFFUSION AND INVENTORY
M. WARRIER, R. SCHNEIDER, E. SALONEN AND K. NORDLUND
IPR/RR-386/2007 (APRIL, 2007)
387. PROFILE RESILIENCE AND SUPPRESSION OF LOW FREQUENCY FLUCTUATIONS IN TOROIDAL MAGNETIZED

- PLASMA WITH VARYING ION MASS
P.K. SHARMA? AND D. BORA
IPR/RR-387/2007 (MAY, 2007)
388. ATTENUATION OF MICROWAVES PROPAGATING THROUGH PARALLEL-
PLATE HELIUM GLOW DISCHARGE AT
ATMOSPHERIC PRESSURE
A.K. SRIVATAVA, G. PRASAD, P.K. ATREY? AND VINAY KUMAR
IPR/RR-388/2007 (MAY, 2007)
389. STABILITY OF NONLINEAR 1D LASER PULSE SOLITONS IN A PLASMA
VIKRANT SAXENA, AMITA DAS, SUDIP SENGUPTA, PREDHIMAN KAW AND
ABHIJIT
IPR/RR-389/2007 (MAY, 2007)
390. THERMAL ELECTRON CYCLOTRON EMISSION MEASUREMENT ON ADITYA
TOKAMAK BY RADIOMETERS
HITESH KUMAR PANDYA, K.K. JAIN AND ADITYA GROUP
IPR/RR-390/2007 (JUNE, 2007)
391. LOW FREQUENCY FLUCTUATIONS IN SCRAPE-OFF-LAYER? OF TOKAMAK
PLASMA WITH LIMITER BIASING
N. BISAI, R. SINGH, S. DESHPANDE AND P.K. KAW ?
IPR/RR-391/2007 (JUNE, 2007)
392. EXPERIMENT STUDY OF ANTENNA PARAMETERS OF SURFACE WAVE
PRODUCED PLASMA COLUMN
RAJNEESH KUMAR AND DHIRAJ BORA
IPR/RR-392/2007 (JULY, 2007)
393. TOKAMAK EQUILIBRIUM CODE -IPREQ
R. SRINIVASAN AND S.P. DESHPANDE
IPR/RR-393/2007 (AUGUST, 2007)
394. RELAXATION AND SELF ORGANIZATION IN 2-D PLASMA AND NEUTRAL
FLUID FLOW SYSTEMS
AMITA DAS
IPR/RR-394/2007 (SEPTEMBER, 2007)
395. MEASUREMENT OF THE MASS OF DIELECTRIC BY RESONANT
PERTURBATION METHOD
RASHMITA DAS, P.K. ATREY AND H.A. PATHAK
IPR/RR-395/2007 (OCTOBER, 2007)
396. GENERATION OF FAST NEUTRALS IN A LASER-BLOW-OFF OF LIF-C FILM: A
FORMATION MECHANISM
R.K. SINGH, AJAI KUMAR, V. PRAHLAD AND H.C. JOSHI
IPR/RR-396/2007 (OCTOBER, 2007)
397. SYMMETRY BREAKING IN SST-1 DOUBLE NULL PLASMA
R. SRINIVASAN
IPR/RR-397/2007 (NOVEMBER, 2007)
398. FIELD CHARACTERIZATION OF HIGH TC HELMHOLTZ COILS
PRAMOD K. NAYAK, U. PRASAD, A.N. SHARMA, D. PATEL AND S. PRADHAN
IPR/RR-398/2007 (NOVEMBER, 2007)

399. STUDY AND OPTIMIZATION OF PLASMA-BASED RADAR CROSS-SECTION REDUCTION USING THREE-DIMENSIONAL COMPUTATIONS
BHASKAR CHAUDHURY AND SHASHANK CHATURVEDI
IPR/RR-399/2007 (NOVEMBER, 2007)

400. MEASUREMENTS OF ELECTRON TEMPERATURE AND DENSITY OF MULTI-COMPONENT PLASMA PLUME FORMED BY LASER-BLOW-OFF OF LIF-C FILM
S. SUNIL, AJAI KUMAR, R.K. SINGH AND K.P. SUBRAMANIAN
IPR/RR-400/2007 (DECEMBER, 2007)

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401. CRITICALITY IN FABRICATION OF ION EXTRACTION SYSTEM FOR SST-1 NEUTRAL BEAM INJECTOR
M.R. JANA AND S.K. MATTOO
IPR/RR-401/2008 (JANUARY, 2008)

402. INHOMOGENEOUS ELECTRON EMISSION FROM A HOT FILAMENT IN TOROIDAL MAGNETIC FIELD
R. KAUR AND S.K. MATTOO
IPR/RR-402/2008 (JANUARY, 2008)

403. CLUSTERED CHIMERA STATES IN DELAY COUPLED OSCILLATOR SYSTEMS
GAUTAM C. SETHIA, ABHIJIT SEN AND FATIHCAN M. ATAY
IPR/RR-403/2008 (JANUARY, 2008)

404. NONRESONANT CURRENT DRIVE BY HELICON WAVES IN A SMALL ASPECT RATIO TOROUS
MANASH KR. PAUL AND DHIRAJ BORA
IPR/RR-404/2008 (JANUARY, 2008)

405. CRITICALITY IN FABRICATION OF ION EXTRACTION SYSTEM FOR SST-1 NEUTRAL BEAM INJECTOR
M.R. JANA AND S.K. MATTOO
IPR/RR-405/2008 (JANUARY, 2008) [DUPLICATE ENTRY WITH RR-401]

406. STUDY OF ELECTRON BEHAVIOR IN PULSED ION SHEATH
S. KAR AND S. MUKHERJEE
IPR/RR-406/2008 (MARCH, 2008)

407. MOLECULAR DYNAMIC SIMULATIONS OF A DOUBLE-WALLED CARBON NANOTUBE MOTOR SUBJECTED TO A SINUSOIDALLY VARYING ELECTRIC FIELD
S. NEGI, M. WARRIER, S. CHATURVEDI AND K. NORDLUND
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408. LONG PULSE CHARACTERISTICS OF 5 MW ION SOURCE FOR SST-1 NEUTRAL BEAM INJECTOR

M.R. JANA, S.K. MATTOO, A.K. CHACKRABORTY, U.K. BARUAH, G.B. PATEL
AND P.K. JAYAKUMAR
IPR/RR-408/2008 (APRIL, 2008)

409. DRIVEN TRANSVERSE SHEAR WAVES IN A STRONGLY COUPLED DUSTY
PLASMA

P. BANDYOPADHYAY, G. PRASAD, A. SEN AND P.K. KAW
IPR/RR-409/2008 (APRIL, 2008)

410. PROPAGATION OF ELECTRON MAGNETOHYDRODYNAMIC STRUCTURES IN
A 2-D INHOMOGENEOUS PLASMA

YADAV,SHARAD KUMAR, DAS,AMITA AND KAW,PREDHIMAN

IPR/RR-410/2008(APRIL-2008)

411. PHASE MIXING OF RELATIVISTICALLY INTENSE WAVES IN A COLD
HOMOGENEOUS PLASMA

SENGUPTA,SUDIP, SAXENA,VIKRANT, KAW,PREDHIMAN K., SEN,ABHIJIT AND
DAS,AMITA

IPR/RR-411/2008(MAY-2008)

412. TRANSIENT ANALYSIS OF CREEPING WAVE MODES USING 3-D FDTD
SIMULATION AND SVD METHOD

CHAUDHURY,BHASKAR, CHATTOPADHYAY,PRABAL KUMAR, RAJU,DANIEL
AND CHATURVEDI

IPR/RR-412/2008(MAY-2008)

413. EXPERIMENTAL STUDY OF NONLINEAR DUST ACOUSTIC SOLITARY
WAVES IN A DUSTY PLASMA

BANDYOPADHYAY,P., PRASAD,G., SEN,A. AND KAW,P.K.

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414. NEUTRON IRRADIATION EFFECTION BSCCO AND YBCO TAPE

NAYAK,PRAMOD K., DAS,BASANTA, PRASAD,UPENDRA, PATEL,DIPAK,

KEDIA,SUNIL, SHYAM,ANURAG AND PRADHAN,S. IPR/RR-414/2008(MAY-2008)

415. ROLE OF NONADIABATIC UNTRAPPED ELECTRONS IN GLOBAL
ELECTROSTATIC ION TEMPERATURE GRADIENT DRIVEN MODES IN A

TOKAMAK CHOWDHURY,J., GANESH,R., ANGELINO,P., VACLAVIK,J.,
VILLARD,L. AND BRUNNER,S.

IPR/RR-415/2008(JUNE-2008)

416. EXPERIMENTAL STUDY OF WAVE INDUCED HELICITY IN A HELICON
DISCHARGE

PAUL,MANASH KUMAR AND BORA,DHIRAJ

IPR/RR-416/2008(JUNE-2008)

417. COMPARATIVE STUDY OF LASER PRODUCED Li PLASMA PLUMES FROM
THIN FILM AND SOLID TARGET

KUMAR,AJAI, SINGH,R.K., PRAHLAD,V. AND JOSHI,H.C.

IPR/RR-417/2008(JUNE-2008)

418. Production of Metal Oxide Nanaopowder by Exploding Wire Method

RASHMITA DAS and ANURAG SHYAM

IPR/RR-418/2008 AUGUST, 2008

419. Observation and Theory of Coupled Whistler-Electron Temperature Gradient
Turbulence in High Beta Plasma of the Large Volume Plasma Device

L. M. AWASTHI, S. K. MATTOO, R. SINGH, R. JHA and P. K. KAW

IPR/RR-419/2008 AUGUST, 2008

420. Recent Advances and Up-gradation of ICRH System on ADITYA

KISHORE MISHRA, DHARMENDRA RATHI, SIJU GEORGE, ATUL VARIA, MANOJ
SINGH, H.M. JADHAV, Y.S.S. SRINIVAS, RAJ SINGH, SUNIL KUMAR, S.V.

KULKARNI and ICRH-RF GROUP

IPR/RR-420/2008 AUGUST, 2008

421. Numerical Simulations for Cold Layer Formation in an Inverse Z-Pinch Magnetized
Target Fusion system

P.V. SUBHASH, S.MADHAVAN and S. CHATURVEDI

IPR/RR-421/2008 AUGUST, 2008

422. Effect of Surface Produced Negative Ions on the Sheath in a Fusion Grade Negative Ion
Source

SEJAL SHAH and M. BANDYOPADHYAY

IPR/RR-422/2008 AUGUST, 2008

423. Development of Compact Size Penning Ion Source for Compact Neutron Generator

BASANTA KUMAR DAS and ANURAG SHYAM

IPR/RR-423/2008 SEPTEMBER, 2008

424. Design of an Ion Extractor System for a Prototype Ion Source Experiment for SST-1
Neutral Beam Injector

M.R. JANA, M. BANDYOPADHYAY, N.P. SINGH, S. K. SHARMA, A.K.

CHAKRABORTY, U.K. BARUAH and S.K. MATTOO

IPR/RR-424/2008 OCTOBER, 2008

425. A Comprehensive Gyrokinetic Description of Global Electrostatic Microinstabilities in a
Tokamak

J. CHOWDHURY, R. GANESH, S. BRUNNER, J. VACLAVIK, L. VILLARD, and P.
ANGELINO

IPR/RR-425/2008 OCTOBER, 2008

426. Design and Fabrication of a High Tc BSCCO based Square Helmholtz Coil

PRAMODA K. NAYAK, U. PRASAD, A. AMARDAS, A. N. SHARMA, D. PATEL and S.
PRADHAN

IPR/RR-426/2008 OCTOBER, 2008

427. Fast Imaging of Laser-blow-off Plume: Lateral Confinement in Ambient Environment

SONY GEORGE, AJAI KUMAR, R.K. SINGH and V.P.N. NAMPOORI

IPR/RR-427/2008 NOVEMBER, 2008

428. Diffuse Reflection Model and Noise Stabilization for Tangential Image Tomographic Reconstruction (TITR) Code

SANTANU BANERJEE and P. VASU

IPR/RR-428/2008 DECEMBER, 2008

429. Anomalous Energy Dissipation of Electron Current Pulses Propagating through an Inhomogeneous Collisionless Plasma Medium

SHARAD KUMAR YADAV, AMITA DAS, PREDHIMAN KAW and SUDIP SENGUPTA

IPR/RR-429/2008 DECEMBER, 2008

430. Design and Development of Retarding Field Analyzer for a Currentless Toroidal Magnetized Plasma Device

T.S.GOUD, R.GANESH, K.SATHYANARAYANA, D.RAJU, K.K.MOHANDAS, and C.CHAVDA

IPR/RR-430/2008 DECEMBER, 2008

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431. Estimation of Critical Current Density (JC) & 'n' from I-V Characteristics of Ex-situ MgB₂ Strand

PRAMODA K. NAYAK, A. AMARDAS, S. KEDIA, D. PATEL, J. PARMAR, U.

SYAMAPRASAD and S. PRADHAN

IPR/RR-431/2009 JANUARY, 2009

432. Radiation Power Measurement on ADITYA Tokamak

KUMUDNI TAHILIANI, RATNESHWAR JHA, M.V.GOPALKRISHNA, KALPESH DOSHI, VIPAL RATHOD, CHANDRESH HANSALIA and

ADITYA TEAM

IPR/RR-432/2009 JANUARY, 2009

433. Parametric Study of Expanding Plasma Plume formed by Laser-blow-off of Thin Film using Triple Langmuir Probe

AJAI KUMAR, R.K. SINGH, JINTO THOMAS and S. SUNIL

IPR/RR-433/2009 JANUARY, 2009

434. Linearly Polarized Superluminal Electromagnetic Solitons in Cold Relativistic Plasmas

VIKRANT SAXENA, ABHIJIT SEN and PREDHIMAN KAW

IPR/RR-434/2009 JANUARY, 2009

435. MCNP: Our Understanding

C. DANANI, V. CHAUDHARI and I. SANDEEP

IPR/RR-435/2009 JANUARY, 2009

436. Effect of Magnetic Field on Laser-Blow-Off Li Plasma Plume: Role of Atomic Processes

AJAI KUMAR, R.K. SINGH, V. PRAHLAD and H.C. JOSHI

IPR/RR-436/2009 FEBRUARY, 2009

437. Investigation of Gas Puff Induced Fluctuation Suppression in ADITYA Tokamak

R. JHA, A. SEN, P.K. KAW, P.K. ATREY, S.B. BHATT, N. BISAI, K. TAHILIANI, R.L. TANNA and the ADITYA Team
IPR/RR-437/2009 FEBRUARY, 2009

438. Normal Mode Analysis of a Single Walled Carbon Nanotube based on Molecular Dynamics

S. NEGI and S. CHATURVEDI
IPR/RR-438/2009 MARCH, 2009

2009-2010

439. Expansion Dynamics of Laser-blow-off Plume in Ambient Gases: A Study using Fast Imaging

SONY GEORGE, AJAI KUMAR, R.K. SINGH, and V.P.N. NAMPOORI
IPR/RR-439/2009 APRIL, 2009

440. Emission Analysis of Expanding Laser Produced Lithium Plasma Plume in Presence of Ambient Gas

H. C. JOSHI, V. PRAHLAD, R. K. SINGH and AJAI KUMAR
IPR/RR-440/2009 MAY, 2009

441. Role of Natural Length and Time Scales on Shear Driven 2-D Electron Magnetohydrodynamic Instability

GURUDATT GAUR, SITA SUNDAR, SHARAD K. YADAV, AMITA DAS, PREDHIMAN KAW, and SARVESHWAR SHARMA
IPR/RR-441/2009 MAY, 2009

442. Short Wavelength Ion Temperature Gradient Mode and Coupling with Trapped Electrons

J. CHOWDHURY, R. GANESH, J. VACLAVIK, S. BRUNNER and L. VILLARD
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443. Nonlinear Wave Propagation in Strongly Coupled Dusty Plasmas

B.M.VEERESHA, S.K.TIWARI, A.SEN, P.K.KAW, and A.DAS
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444. Effect of External Drive on Strongly Coupled Yukawa Systems: A Non Equilibrium Molecular Dynamics (NEMD) Study

ASHWIN J. and R. GANESH
IPR/RR-444/2009 JULY, 2009

445. INFLUENCE OF LASER BEAM INTENSITY PROFILE ON PROPAGATION DYNAMICS OF LASER-BLOW-OFF PLASMA PLUME

AJAI KUMAR, SONY GEORGE, R.K. SINGH, and V.P.N. NAMPOORI
IPR/RR-445/2009 SEPTEMBER, 2009

446. EFFECT OF COLLISIONAL QUENCHING ON THE MEASUREMENT OF ION SPECIE MIX IN NEUTRAL BEAM INJECTORS

P. BHARATHI AND V. PRAHLAD
IPR/RR-446/2009 SEPTEMBER, 2009

447. FREE ENERGY SOURCE FOR FLOW SHEAR DRIVEN INSTABILITIES IN ELECTRON - MAGNETOHYDRODYNAMICS

SITA SUNDAR and AMITA DAS

IPR/RR-447/2009 OCTOBER, 2009

448. INFLUENCE OF A NEGATIVE PULSE BIASED ELECTRODE SURFACE AREA AND ANGLE ON THE ION SHEATH ELECTRON BEHAVIOR

S. KAR and S. MUKHERJEE

IPR/RR-448/2009 OCTOBER, 2009

449. APPLICATIONS OF PLASMA COLUMNS FOR CONTROLLING THE MICROWAVE PROPAGATION IN A METALLIC PHOTONIC CRYSTAL

RAJNEESH KUMAR

IPR/RR-449/2009 OCTOBER, 2009

450. FAST INTEGRATOR BASED DATA ACQUISITION SYSTEM FOR THE SST-1 THOMSON SCATTERING SYSTEM

KIRAN PATEL and AJAI KUMAR

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451. EFFECT OF TEMPERATURE ON PRESSURE DROP IN CABLE-IN-CONDUIT-CONDUCTOR OF SST-1

SUNIL KEDIA, JAYESH PARMAR, DIPAK PATEL, KALPESH DOSHI, YOHAN

KHRISTI, PANKAJ VARMORA, UPENDRA PRASAD, A.N.SHARMA and S.PRADHAN

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452. A RECONFIGURABLE PLASMA ANTENNA

RAJNEESH KUMAR and DHIRAJ BORA

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453. EFFECT OF MAGNETIC FIELD ON LASER-BLOW-OFF PLASMA PLUME: STRUCTURED TEMPORAL EMISSION PROFILE

AJAI KUMAR, V. PRAHLAD, H.C. JOSHI and R.K. SINGH

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454. ELECTRON VELOCITY SHEAR DRIVEN INSTABILITY IN RELATIVISTIC REGIME

SITA SUNDAR and AMITA DAS

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455. DEPOSITION OF THICK AND ADHERENT TEFLON LIKE COATING ON INDUSTRIAL SCALE STAINLESS STEEL SHELL

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A. SATYAPRASAD, S.K. NEMA, N.K. SINHA, and BALDEV RAJ

IPR/RR-455/2009 DECEMBER, 2009

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456. NONLINEAR STUDIES OF FAST ELECTRON CURRENT PULSE PROPAGATION IN A TWO DIMENSIONAL INHOMOGENEOUS PLASMA

SHARAD KUMAR YADAV and AMITA DAS

IPR/RR-456/2010 JANUARY, 2010

457. STUDY OF NONLINEAR OSCILLATIONS IN A COLD DISSIPATIVE PLASMA
PRABAL SINGH VERMA, J.K. SONI, S. SENGUPTA and P.K. KAW

IPR/RR-457/2010 JANUARY, 2010

458. EFFECT OF TRANSVERSE MAGNETIC FIELD ON THE PLUME EMISSION IN
LASER PRODUCED PLASMA: AN ATOMIC ANALYSIS

H.C. JOSHI, AJAI KUMAR, R. K. SINGH and V. PRAHLAD

IPR/RR-458/2010 JANUARY, 2010

459. REACTION ORDER IN CURING KINETICS OF CYANATE ESTER &
BISPHENOL-F BLEND INSULATION SYSTEMS IN FUSION RELEVANT MAGNETS
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PRIYANKA BRAHMBHATT, JISHA UNNIKRISHNAN, J. D. SUDHA and SUBRATA
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460. KELVIN HELMHOLTZ INSTABILITY IN STRONGLY COUPLED YUKAWA
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ASHWIN JOY and R. GANESH-

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461. MEASUREMENT OF ELECTROMAGNETIC & THERMAL STRESSES ON
CONDUCTION COOLED JOINTS OF SST-1 SPARE TF COIL

SUNIL KEDIA, YOHAN KRISTI, UPENDRA PRASAD, KALPESH DOSHI, A.N.
SHARMA and S. PRADHAN

IPR/RR-461/2010 FEBRUARY, 2010

462. STUDY OF PRESSURE-DRIVEN OSCILLATIONS IN LASER-BLOW-OFF
PLASMA PLUME

RAJNEESH KUMAR, AJAI KUMAR, R. K. SINGH AND JINTO THOMAS

IPR/RR-462/2010 FEBRUARY, 2010

463. EXPERIMENTAL INVESTIGATION OF DIFFERENT STRUCTURES OF AN RF
PRODUCED PLASMA COLUMN

RAJNEESH KUMAR AND DHIRAJ BORA

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464. WIRELESS COMMUNICATION CAPABILITY OF A RECONFIGURABLE
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RAJNEESH KUMAR AND DHIRAJ BORA

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TIME VARYING MAGNETIC FIELD COUPLED NOISE REDUCTION IN LOW
VOLTAGE MEASUREMENTS IN SUPERCONDUCTORS

KALPESH DOSHI, YOHAN KHRISTI, SUNIL KEDIA and S. PRADHAN

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STUDY OF POSSIBLE APPLICATIONS OF PLASMAS AS TUNABLE
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RAJNEESH KUMAR

IPR/RR-466/2010 MARCH, 2010

SYNCHRONOUS SOLUTIONS AND THEIR STABILITY IN NONLOCALLY COUPLED
PHASE OSCILLATORS WITH PROPAGATION DELAYS

GAUTAM C. SETHIA, ABHIJIT SEN and FATIHCAN M. ATAY

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I – V CHARACTERISTICS STUDY AND INDEX NUMBER ‘N’ DETERMINATION OF
LN₂ BATH COOLED HTS DI – BSCCO TAPE

DIPAK PATEL, S. KEDIA, Y. KHRISTI, N. KADIA, P. VARMORA, K. DOSHI AND S.
PRADHAN

IPR/RR-468/2010 MARCH, 2010

EFFECT OF RADIATIVE ATOMIC PROCESSES ON HALL THRUSTER EQUILIBRIA

M. KUNDU and R. SRINIVASAN

IPR/RR-469/ 2010 APRIL, 2010

DETERMINATION OF USEFUL PARAMETER SPACE FOR A DOUBLE-WALLED
CARBON NANOTUBE BASED MOTOR SUBJECTED TO A SINUSOIDALLY
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SUNITA NEGI, MANOJ WARRIER and SHASHANK CHATURVEDI

IPR/RR-470/ 2010 APRIL, 2010

EXCITATION OF POTENTIAL WELL IN BETA DEVICE

R KAUR, A SARADA SREE and S K MATTOO

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NONDESTRUCTIVE TEST OF BRAZED COOLING TUBES OF PROTOTYPE
BOLOMETER CAMERA HOUSING USING ACTIVE INFRARED THERMOGRAPHY

KUMUDNI TAHILIANI, SANTOSH PANDYA, SHWETANG PANDYA,

RATNESHWAR JHA and J. GOVINDARAJAN

IPR/RR-472/ 2010 APRIL, 2010

RUNAWAY-LOSS INDUCED NEGATIVE AND POSITIVE LOOP VOLTAGE SPIKES

IN ADITYA-TOKAMAK

BHOOSHAN PARADKAR, J. GHOSH, P.K. CHATTOPADHYAY, R.L. TANNA, D.

RAJU, S.B. BHATT, C.V.S. RAO, SANKAR JOISA, SANTANU BANERJEE, R.

MANCHANDA, Y. C. SAXENA AND ADITYA TEAM

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STEADY STATE PERFORMANCE TEST ANALYSIS OF ACTIVELY COOLED
EXTRACTOR GRIDS FOR SST-1 NEUTRAL BEAM INJECTOR

M. R. JANA, S. K. MATTOO and M. KHAN

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PARALLEL SHEAR FLOW INSTABILITIES IN STRONGLY COUPLED YUKAWA
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ASHWIN J. and R. GANESH
IPR/RR-475/ 2010 APRIL, 2010

LIFE CYCLE OF DENSITY STRUCTURES IN SIMPLE MAGNETIZED TORUS
R KAUR, A SARADA SREE, A K SINGH and S K MATTOO
IPR/RR-476/ 2010 APRIL, 2010

DESIGN AND OPTIMIZATION OF SUPERCONDUCTING INTERACTION REGION
MAGNET SYSTEM FOR THE FIRST INDIGENOUS GYROTON
SUNIL KEDIA and SUBRATA PRADHAN
IPR/RR-477/2010 APRIL, 2010

LARGE AREA OXIDE COATED CATHODE
L. M. AWASTHI, P. K. SRIVASTAVA, K. KUMAR, G. RAVI, C. RAJGURU, V. P.
ANITHA AND S. K. MATTOO
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TOROIDAL UNIVERSAL DRIFT INSTABILITY: A GLOBAL GYROKINETIC STUDY.
J. CHOWDHURY, R. GANESH, S. BRUNNER, J. VACLAVIK, and L. VILLARD
IPR/RR-479/2010 JUNE, 2010

STUDY OF LASER-BLOW-OFF PLUME DYNAMICS USING SINGULAR VALUE
DECOMPOSITION TECHNIQUE
RAJU DANIEL, AJAI KUMAR and R.K. SINGH
IPR/RR-480/2010 JUNE, 2010

SECOND HARMONIC HEATING EXPERIMENTS ON TOKAMAK ADITYA USING
FAST WAVES IN ICRF RANGE
KISHORE MISHRA, S.V. KULKARNI, D. RATHI, ATUL D VARIA, H.M. JADAV, K.M.
PARMAR, B.R. KADIA, R. JOSHI, Y.S.S. SRINIVAS, RAJ
SINGH, SUNIL KUMAR, S. DANI, A. GAYATRI, R.A. YOGI, Y.S. JOISA, C.V.S. RAO,
SAMEER KUMAR, R. JHA, R. MANCHANDA, J. GHOSH,
P.K. ATREY, S.B. BHATT, C.N. GUPTA, P.K. CHATTOPADHYAYA, ADITYA TEAM,
DHIRAJ BORA and P.K. KAW
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EXCITATION OF ELECTRON ACOUSTIC WAVES IN A LABORATORY PLASMA
S. KAR, S. MUKHERJEE, G. RAVI and Y.C. SAXENA
IPR/RR-482/2010 JUNE, 2010

FUZZY LOGIC BASED FEEDBACK CONTROL SYSTEM FOR LASER BEAM
POINTING STABILIZATION
RANJEET SINGH, KIRAN PATEL, J. GOVINDARAJAN and AJAI KUMAR
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NONLINEAR EVOLUTION OF AN ARBITRARY DENSITY PERTURBATION IN A
COLD HOMOGENEOUS UNMAGNETIZED PLASMA
PRABAL SINGH VERMA, SUDIP SENGUPTA, PREDHIMAN K. KAW
IPR/RR-484/2010 JULY, 2010

PARALLEL SHEAR FLOW INSTABILITIES IN STRONGLY COUPLED YUKAWA LIQUIDS -

“A COMPARISON OF GENERALIZED HYDRODYNAMIC MODEL AND MOLECULAR DYNAMICS RESULTS”

ASHWIN J. and R. GANESH

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WALL REFLECTION MODELING FOR CXRS MEASUREMENTS ON TEXTOR AND ITER

SANTANU BANERJEE, P. VASU, M. VON HELLERMANN, and R.J.E. JASPERS

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INTRINSIC TOROIDAL AND POLOIDAL FLOW GENERATION IN THE BACKGROUND OF ITG TURBULENCE

RAMESWAR SINGH, RAJARAMAN GANESH, RAGHVENDRA SINGH and PREDHIMAN KAW

IPR/RR-487/2010 AUGUST, 2010

EFFECT OF MAGNETIC FIELD ON THE LASER-PRODUCED LITHIUM PLASMA: IMAGING ANALYSIS

AJAI KUMAR, SONY GEORGE, R.K. SINGH, HEM JOSHI, and V.P.N. NAMPOORI

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ION-ACOUSTIC RESPONSE OF PLASMA TO COMPRESSIVE DENSITY PULSES DEVENDRA SHARMA, ABHIJIT SEN, and PREDHIMAN K. KAW

IPR/RR-489/2010 AUGUST, 2010

PRELIMINARY NEUTRONIC DESIGN AND ANALYSES OF INDIAN LLCB DEMO BLANKET

CHANDAN DANANI, E. RAJENDRA KUMAR, R. SRINIVASAN and INDIAN DEMO TEAM

IPR/RR-490/2010 SEPTEMBER, 2010

CHARACTERIZATION STUDY OF FIELD EMISSION COLD CATHODES (ALUMINIUM AND GRAPHITE) USING AMBICA-300

RISHI VERMA, GURSHARAN SINGH, A. SHYAM and S. CHATURVEDI

IPR/RR-491/2010 SEPTEMBER, 2010

EFFECT OF PRESSURE GRADIENTS ON LASER BEAM PROPAGATION THROUGH AN OPTICAL WINDOW FOR TOKAMAK PLASMA DIAGNOSTICS

RAJ KUMAR, RANJEET SINGH, KAUSHAL PANDYA and AJAI KUMAR

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TERRITORIAL CHARACTERISTICS OF LOW FREQUENCY ELECTROSTATIC FLUCTUATIONS IN A SIMPLE MAGNETIZED TOROUS

R. KAUR, A.K. SINGH, R. SINGH, A SARADA SREE and S. K. MATTOO

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EFFECT OF TRANSVERSE MAGNETIC FIELD ON THE LASER-BLOW-OFF PLASMA PLUME: EMISSION IN THE PRESENCE OF AMBIENT GAS

AJAI KUMAR, R.K. SINGH, and HEM JOSHI
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COHERENT VORTICES IN STRONGLY COUPLED LIQUIDS
ASHWIN J. and R. GANESH
IPR/RR-495/2010 DECEMBER, 2010

ROLE OF FLUCTUATIONS AND FLOWS IN SUSTAINING MEAN PROFILES IN A
CURRENTLESS TOROIDAL PLASMA
T. S. GOUD, R. GANESH, Y. C. SAXENA, D. RAJU, K. SATHYANARAYANA, K. K.
MOHANDAS and C. CHAVDA
IPR/RR-496/2010 DECEMBER, 2010

B2C: A PROGRAM TO CONVERT BOUNDARY REPRESENTATION INTO
CONSTRUCTIVE SOLID GEOMETRIC REPRESENTATION OR PRIMITIVE
MATHEMATICAL FORMS
C.V. SURESH, SHRICHAND JAKHAR, C.V.S.RAO, T.K BASU, G.RANGA
JANARDHANA, P.V.SUBHASH
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EXCITATION OF ION RAREFACTION WAVES IN A LOW PRESSURE PLASMA BY
APPLYING A SHORT HIGH NEGATIVE VOLTAGE PULSE
S. KAR, S. MUKHERJEE and Y. C. SAXENA
IPR/RR-498/2011 JANUARY, 2011

PHYSICS OF THE WAVE ABSORPTION IN ION CYCLOTRON RANGE OF
FREQUENCY AND MODELING OF ICRH SCENARIOS ON
ADITYA WITH THE HELP OF TORIC CODE
A. K. CHATTOPADHYAY
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FPGA Based Fuzzy Logic Controller for Plasma Position Control in ADITYA Tokamak
POOJA SURATIA, JIGNESH PATEL, RACHNA RAJPAL, SORUM KOTIA and J.
GOVINDARAJAN
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OBSERVATION OF CUSP SOLITONS IN DUSTY PLASMA SIMULATIONS
SANAT KUMAR TIWARI, AMITA DAS, PREDHIMAN KAW, and ABHIJIT SEN
IPR/RR-501/2011 MARCH, 2011

NEUTRONIC OPTIMISATION OF THE INDIAN LEAD-LITHIUM COLLED CERAMIC
BREEDER (LLCB) BLANKET FOR DEMO
C. DANANI, H.L. SWAMI, V. CHAUDHARI, B.J. SAIKIA
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EFFECTS OF HARMONIC OVERLAP AND POLARIZATION SCRAMBLING ON EC
EMISSION FROM ITER PLASMA
S. DANANI, HITESH KUMAR B. PANDYA, P.VASU
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2011-2012

FORMATION AND INTERACTION OF DIPOLAR VORTICES IN STRONGLY COUPLED LIQUIDS

ASHWIN J. and R. GANESH

IPR/RR-504/2011 APRIL, 2011

EXPERIMENTAL OBSERVATION OF ETG TURBULENCE IN A LABORATORY PLASMA

S. K. MATTOO, S. K. SINGH, L. M. AWASTHI, R. SINGH and P. K. KAW

IPR/RR-505/2011 APRIL, 2011

MODELING OF LOWER HYBRID CURRENT DRIVE SCENARIOS IN SST-1 TOKAMAK

I. BANDYOPADHYAY and S.P. DESHPANDE

IPR/RR-506/2011 APRIL, 2011

SENSITIVITY ANALYSIS ON PREDICTED MICROWAVE PERFORMANCE OF MODE CONVERTERS WITH GEOMETRICAL TOLERANCES FOR 42 GHZ TRANSMISSION LINE COMPONENTS

K. SATHYANARAYANA, NIDHI SHAH and S.V. KULKARNI

IPR/RR-507/2011 APRIL, 2011

DESIGN AND DEVELOPMENT OF FIVE-CHANNEL INTERFERENCE FILTER POLYCHROMATOR FOR SST-1 THOMSON SCATTERING SYSTEM
JINTO THOMAS, AJAI KUMAR, VISHNU CHOUDHARI, KAUSHAL PANDYA, RANJEET SINGH

IPR/RR-508/2011 MAY, 2011

COEVOLUTION OF INVERSE CASCADE AND NONLINEAR HEAT FRONT IN SHEAR FLOWS OF STRONGLY COUPLED YUKAWA LIQUIDS

ASHWIN J. and R. GANESH

IPR/RR-509/2011 MAY, 2011

A LITERATURE REVIEW ON SYNTHESIS OF HIGH TEMPERATURE YTTRIUM BARIUM COPPER OXIDE (YBCO) SUPERCONDUCTORS

ZIAUDDIN KHAN and SUBRATA PRADHAN

IPR/RR-510/2011 JUNE, 2011

MODE CONVERSION OF WHISTLER WAVES IN A MAGNETIC BUBBLE

V. P. ANITHA, D. SHARMA, S. P. BANERJEE, and S. K. MATTOO

IPR/RR-511/2011 JUNE, 2011

KELVIN-HELMHOLTZ INSTABILITY IN A WEAKLY COUPLED DUST FLUID
SANAT KUMAR TIWARI, AMITA DAS, PREDHIMAN KAW and ABHIJIT SEN

IPR/RR-512/2011 JUNE, 2011

SYMMETRY BREAKING EFFECTS OF DENSITY GRADIENT ON PARALLEL MOMENTUM TRANSPORT: A NEW P*s EFFECT

RAMESWAR SINGH, R. SINGH, P. KAW, O.D. GURCAN, P.H. DIAMOND and H. NORDMAN
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EFFECT OF MAGNETIC FIELD ON SELF-CONSISTENT OSCILLATORY STRUCTURES IN LASER-BLOW-OFF PLASMA PLUME
RAJNEESH KUMAR, AJAI KUMAR and R.K. SINGH
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1ST PHASE HIGH HEAT FLUX TEST OF DIVERTOR TEST MOCK-UPS
Y. PATIL, D. KRISHNAN, A. PATEL, S. S. KHIRWADKAR and PROTOTYPE DIVERTORS DIVISION TEAM OF IPR
IPR/RR-515/2011 JUNE, 2011

EXISTENCE AND STABILITY OF TRAVELLING WAVE STATES IN A RING OF NON-LOCALLY COUPLED PHASE OSCILLATORS WITH PROPAGATION DELAYS
GAUTAM C SETHIA and ABHIJIT SEN
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EXCITATION OF ELECTROSTATIC WAVES USING PULSED CAPACITIVE PROCESS
S. KAR and S. MUKHERJEE
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RELATIVISTIC ELECTROMAGNETIC FLAT TOP SOLITONS AND THEIR STABILITY
SITA SUNDAR, AMITA DAS, VIKRANT SAXENA, PREDHIMAN KAW and ABHIJIT SEN
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THEORY OF COUPLED WHISTLER-ELECTRON TEMPERATURE GRADIENT MODE IN HIGH BETA PLASMA: APPLICATION TO LINEAR PLASMA DEVICE
S. K. SINGH, L. M. AWASTHI, R. SINGH, P. K. KAW, R. JHA and S. K. MATTOO
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NONLINEAR SHORT WAVELENGTH ION TEMPERATURE GRADIENT TURBULENCE
J. CHOWDHURY, S. BRUNNER, R. GANESH, X.LAPILLONNE, L. VILLARD, and F. JENKO
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FAST IMAGING OF THE LASER-BLOW-OFF PLUME DRIVEN SHOCK WAVE: DEPENDENCE ON THE MASS AND DENSITY OF THE AMBIENT GAS
R.K. SINGH, SONY GEORGE, V.P.N. NAMPOORI, and AJAI KUMAR
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LASER-CLUSTER INTERACTION WITH SUB-CYCLE PULSES
M. KUNDU, P. K. KAW and D. BAUER
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NONLINEAR STUDIES OF KELVIN - HELMHOLTZ INSTABILITY IN A WEAKLY
COUPLED DUSTY PLASMA MEDIUM
SANAT KUMAR TIWARI and AMITA DAS
IPR/RR-523/2011 SEPTEMBER, 2011

MEASUREMENT OF PLASMA FLOWS IN SCRAPE-OFF LAYER OF ADITYA
TOKAMAK WITH MAGNETIZED AND UN-MAGNETIZED MACH PROBES
DEEPAK SANGWAN, RATNESHWAR JHA, JANA BROTKOVA and M V
GOPALKRISHNA
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MEASUREMENT OF TRITIUM PRODUCTION RATE DISTRIBUTION IN NATURAL
LiAlO₂/HDPE ASSEMBLY IRRADIATED BY DT NEUTRONS
SHRICHAND JAKHAR, MITUL ABHANGI, C V S RAO, T K BASU, SONALI P.D.
BHADE and PRIYANKA J. REDDY
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COHERENT TO TURBULENCE TRANSITION, ENHANCED FLOW AND
CONFINEMENT IN A SIMPLE TOROIDAL PLASMA
T.S. GOUD, R. GANESH, Y.C. SAXENA, D. RAJU, K. SATHYANARAYANA, K.K.
MOHANDAS and C. CHAVDA
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RATIO COLD PLASMA
PRABAL SINGH VERMA
IPR/RR-527/2011 OCTOBER, 2011

EXACT PROPAGATING NONLINEAR SINGULAR DISTURBANCES IN STRONGLY
COUPLED DUSTY PLASMAS
AMITA DAS, SANAT KUMAR TIWARI, PREDHIMAN KAW, and ABHIJIT SEN
IPR/RR-528/2011 OCTOBER, 2011

STUDIES ON THOMSON SCATTERING VIEWING DUMPS FOR TOKAMAK
PLASMA DIAGNOSTICS
RAJ KUMAR, RAJNEET SINGH and AJAI KUMAR
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LONGITUDINAL SINGULAR RESPONSE OF DUSTY PLASMA MEDIUM IN WEAK
AND STRONG COUPLING LIMITS
SANAT KUMAR TIWARI, AMITA DAS, PREDHIMAN KAW, and ABHIJIT SEN
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EXPERIMENTAL OBSERVATION OF EXTREME MULTISTABILITY IN COUPLED
ELECTRONIC OSCILLATORS
MITESH S. PATEL, UNNATI PATEL, ABHIJIT SEN and GAUTAM C. SETHIA
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PLASMA: NUMERICAL MODELING AND COMPARISONS WITH EXPERIMENTAL
RESULTS

BHAVESH G. PATEL, AMITA DAS, PREDHIMAN KAW, RAJESH SINGH, AJAI
KUMAR

IPR/RR-532/2011 NOVEMBER, 2011

PONDEROMOTIVE ION ACCELERATION IN DENSE MAGNETIZED LASER-
IRRADIATED THICK TARGET PLASMAS

UJJWAL SINHA and PREDHIMAN KAW

IPR/RR-533/2011 NOVEMBER, 2011

DESIGN ASPECTS OF 91.2 MHz 3-dB HYBRID COUPLER USING TWO 8.34-dB
COUPLED LINES

RANA PRATAP YADAV, SUNIL KUMAR and S.V. KULKARNI

IPR/RR-534/2011 NOVEMBER, 2011

EXPERIMENTAL STUDY OF CRITICAL CURRENT CHARACTERISTICS OF 2G
YBCO TAPE UNDER TWISTING MOMENT

ZIAUDDIN KHAN, ANANYA KUNDU and SUBRATA PRADHAN

IPR/RR-535/2011 DECEMBER, 2011

BGK WAVES IN RELATIVISTIC COLD PLASMA

PRABAL SINGH VERMA, SUDIP SENGUPTA, PREDHIMAN KAW

IPR/RR-536/2011 DECEMBER, 2011

BREAKING OF LONGITUDINAL AKHIEZER-POLOVIN WAVES

PRABAL SINGH VERMA, SUDIP SENGUPTA, PREDHIMAN KAW

IPR/RR-537/2012 JANUARY, 2012

DUST CLUSTER EXPLOSION

V. SAXENA, K. AVINASH and A. SEN

IPR/RR-538/2012 JANUARY, 2012

SCRAPE-OFF LAYER PLASMA TURBULENCE

N. BISAI, R. SINGH and P. K. KAW

IPR/RR-539/2012 FEBRUARY, 2012

A HELICON PLASMA SOURCE WITH CONTROLLED / CONTROLLABLE
MAGNETIC FIELD GRADIENT

KSHITISH K. BARADA, P.K. CHATTOPADHYAY, J. GHOSH, SUNIL KUMAR and
Y.C. SAXENA

IPR/RR-540/2012 FEBRUARY, 2012

ANSYS ANALYSIS OF LIMITERS FOR ADITYA TOKAMAK

NAKUL M. KODARKAR, ABHAY S. GORE, S. B. BHATT, J. GHOSH, M. K. RODGE,
K. A. JADEJA, L. T. LACHHVANI, J. GOVINDRAJAN, R. TANNA, D. RAJU,

N. RAMASUBRAMANIAN, P. K. CHATTOPADHYAY, R. SRINIVASAN and ADITYA
TEAM

IPR/RR-541/2012 FEBRUARY, 2012

PERTURBATIVE ANALYSIS OF SHEARED FLOW KELVIN - HELMHOLTZ
INSTABILITY IN A WEAKLY RELATIVISTIC MAGNETIZED ELECTRON FLUID
SITA SUNDAR, AMITA DAS and PREDHIMAN KAW
IPR/RR-542/2012 FEBRUARY, 2012

LINEAR AND NONLINEAR STUDIES OF VELOCITY SHEAR DRIVEN 3-D
ELECTRON - MAGNETOHYDRODYNAMICS (EMHD) INSTABILITY
GURUDATT GAUR and AMITA DAS
IPR/RR-543/2012 FEBRUARY, 2012

SELF CONSISTENT MODEL FOR PONDEROMOTIVE ACCELERATION OF LASER
IRRADIATED TWO SPECIES DENSE TARGET PLASMAS
UJJWAL SINHA
IPR/RR-544/2012 MARCH, 2012

SIMULATION OF WIRE-BURN TEST FOR -70kVdc SOLID STATE CROWBAR
Y.S.S. SRINIVAS, S.V. KULKARNI and ICRH DIVISION
IPR/RR-545/2012 MARCH, 2012

ROLE OF ION MASS IN FLUCTUATIONS AND POLOIDAL FLOWS IN A SIMPLE
TOROIDAL PLASMA
T.S. GOUD, R. GANESH, Y.C. SAXENA and D. RAJU
IPR/RR-546/2012 MARCH, 2012

NUCLEAR PERFORMANCE ANALYSES OF LEAD LITHIUM COOLED CERAMIC
BREEDER LLCB TEST BLANKET MODULE IN ITER
C. DANANI, H.L. SWAMI and E. RAJENDRA KUMAR
IPR/RR-547/2012 MARCH, 2012

DENSE STRONGLY COUPLED PLASMA IN DOUBLE LASER ABLATION OF
LITHIUM: EXPERIMENT AND SIMULATION
AJAI KUMAR, V. SIVAKUMARAN, ASHWIN JOY and R. GANESH
IPR/RR-548/2012 APRIL, 2012

BREAKING OF NONLINEAR OSCILLATIONS IN A COLD PLASMA
PRABAL SINGH VERMA, SUDIP SENGUPTA, PREDHIMAN KAW
IPR/RR-549/2012 MAY, 2012

SURFACE ACTIVATION OF POLYETHYLENE USING LOW PRESSURE AND
ATMOSPHERIC PRESSURE AIR PLASMA AND AGEING STUDIES
PURVI KIKANI, BHAKTI DESAI, SACHIN PRAJAPATI, P. ARUN, NARENDRA
CHAUHAN and S. K. NEMA
IPR/RR-550/2012 MAY, 2012

KELVIN-HELMHOLTZ INSTABILITY IN A STRONGLY COUPLED DUSTY PLASMA
MEDIUM
SANAT KUMAR TIWARI, AMITA DAS, DILIP ANGOM, BHAVESH G. PATEL and
PREDHIMAN KAW
IPR/RR-551/2012 MAY, 2012

ASYMMETRIC EXPLOSION OF CLUSTERS IN AN INTENSE LASER FIELD

M. KUNDU

IPR/RR-552/2012 MAY, 2012

DEVELOPMENT OF TIME SEQUENCING AND SYNCHRONIZING ELECTRONICS FOR DOUBLE PULSE LASER ABLATION EXPERIMENT

VISHNU CHAUDHARI, KIRAN PATEL, AMIT SRIVASTAVA, V. SIVAKUMARAN, R.K. SINGH and AJAI KUMAR

IPR/RR-553/2012 MAY, 2012

GETTERING EFFECT OF LITHIUM IN TOKAMAK ENVIRONMENT

B.K. DAS, S.B. BHATT, AJAI KUMAR, M. GUPTA, N. CHAUHAN, K.M. PATEL, K.A. JADEJA and ADITYA TEAM

IPR/RR-554/2012 MAY, 2012

ADIABATIC FORMULATION FOR CHARGED PARTICLE DYNAMICS IN AN INHOMOGENEOUS ELECTRO-MAGNETIC FIELD

VIKRAM SAGAR, SUDIP SENGUPTA AND PREDHIMAN KAW

IPR/RR-555/2012 MAY, 2012

HIGH HEAT FLUX PERFORMANCE OF BRAZED TUNGSTEN MACRO-BRUSH TEST MOCK-UP FOR DIVERTORS

YASHASHRI PATIL, S S KHIRWADKAR, D KRISHNAN, A PATEL, S TRIPATHI, K P SINGH, S M BELSARE

IPR/RR-556/2012 MAY, 2012

VALID FLOW COMBINATIONS FOR STABLE SHEATH IN A MAGNETIZED MULTIPLE ION SPECIES PLASMA

DEVENDRA SHARMA and PREDHIMAN K. KAW

IPR/RR-557/2012 MAY, 2012

POWER BALANCE ANALYSIS OF DIII-D PLASMA DISCHARGES USING GLF23 TURBULENT MODEL

ASIM KUMAR CHATTOPADHYAY, HOLGER ST. JOHN and LANG LAO

IPR/RR-558/2012 MAY, 2012

EMHD WAVES BOUNDED BY MAGNETIC BUBBLE

V. P. ANITHA, D. SHARMA, S. P. BANERJEE and S. K. MATTOO

IPR/RR-559/2012 JUNE, 2012

DETERMINATION OF MAGNITUDE AND PHASE OF REFLECTION COEFFICIENT FOR ICRH TRANSMISSION LINE ON ADITYA USING LEAST SQUARE TECHNIQUE

RAJ SINGH, DHAVAL PATEL, VISHWA DADHANIYA

IPR/RR-560/2012 JULY, 2012

MODELING EFFECT OF EDGE CURRENT DENSITY $\langle J \rangle$ ON BZ TO DETERMINE THE EFFECTIVENESS OF RECIPROCATING MAGNETIC PROBE TO MEASURE EDGE $\langle J \rangle$

QILONG REN, ASIM KUMAR CHATTOPADHYAY, LANG LAO

IPR/RR-561/2012 JULY, 2012

CHARACTERIZATION OF LABORATORY SCALE HIGH-TC 'D-SHAPED' MAGNET
ZIAUDDIN KHAN, ANANYA KUNDU and SUBRATA PRADHAN

IPR/RR-562/2012 AUGUST, 2012

INVESTIGATIONS ON ETG TURBULENCE IN FINITE BETA PLASMA OF LVPD
S. K. SINGH, L. M. AWASTHI, S. K. MATTOO, P. K. SRIVASTAVA, R. SINGH and P.
K. KAW

IPR/RR-563/2012 AUGUST, 2012

DESIGN AND DEVELOPMENT OF 3DB PATCH COMPENSATED TANDEM HYBRID
COUPLER

RANA PRATAP YADAV, SUNIL KUMAR and S.V.KULKARANI

IPR/RR-564/2012 AUGUST, 2012

INVESTIGATION OF OXYGEN IMPURITY TRANSPORT USING O V VISIBLE
SPECTRAL LINE IN ADITYA TOKAMAK

M. B. CHOWDHURI, J. GHOSH, S. BANERJEE, RITU DEY, R. MANCHANDA, VINAY
KUMAR, P. VASU, K. M. PATEL, P. K. ATREY, Y. SHANKARA JOISA, C. V. S. RAO,
R. L. TANNA, D. RAJU, P. K. CHATTOPADHYAY, R. JHA, C. N. GUPTA, S. B.
BHATT, Y. C. SAXENA and ADITYA TEAM

IPR/RR-565/2012 AUGUST, 2012

EXACT ANALYSIS OF PARTICLE DYNAMICS IN COMBINED FIELD OF FINITE
DURATION LASER PULSE AND STATIC AXIAL MAGNETIC FIELD

VIKRAM SAGAR, SUDIP SENGUPTA and PREDHIMAN KAW

IPR/RR-566/2012 SEPTEMBER, 2012

ESTIMATION AND EXPERIMENTAL VERIFICATION OF MUELLER MATRIX FOR
PLANE SS304 MIRROR

ASHA ADHIYA, RAJWINDER KAUR and PABITRA KUMAR MISHRA

IPR/RR-567/2012 SEPTEMBER, 2012

TEMPERATURE DISTRIBUTION IN FIBRE-GLASS COMPOSITE IMPREGNATED
WITH EPOXY-CYANATE ESTER BLEND

PRIYANKA BRAHMBHATT, MONI BANAUDHA & SUBRATA PRADHAN

IPR/RR-568/2012 SEPTEMBER, 2012

EXPERIMENTAL STUDY ON MHD FLOW THROUGH SQUARE TO CIRCULAR
DUCT TRANSITION ZONE

A. PATEL, R. BHATTACHARYAY, E. RAJENDRA KUMAR, P. K. SWAIN, P.
SATYAMURTHY, S. IVANOV, A. SHISHKO

IPR/RR-569/2012 SEPTEMBER, 2012

INVESTIGATION OF SUITABLE LOCATIONS FOR NEUTRONIC RESPONSES
MEASUREMENTS IN LLCB TBM

A. K. SHAW, H. L. SWAMI, S. TIWARI, C. DANANI, V. CHAUDHARI, E.
RAJENDRAKUMAR

IPR/RR-570/2012 SEPTEMBER, 2012

NONLINEAR LANDAU DAMPING AND FORMATION OF BGK MODES FOR
PLASMAS WITH Q-NONEXTENSIVE VELOCITY DISTRIBUTIONS

M. RAGHUNATHAN and R. GANESH
IPR/RR-571/2012 OCTOBER, 2012

AN OVERVIEW OF SPACECRAFT CHARGING RESEARCH IN INDIA: SPACECRAFT
PLASMA INTERACTION EXPERIMENTS - SPIX-II

SURYAKANT B. GUPTA, KEENA KALARIA, NARESH VAGHELA, SUBROTO
MUKHERJEE, SURESH E. PUTHANVEETIL, M. SANKARAN and RANGANATH S.
EKKUNDI
IPR/RR-572/2012 NOVEMBER, 2012

OBSERVATION OF LOW MAGNETIC FIELD DENSITY PEAKS IN HELICON
PLASMA

KSHITISH K.BARADA, P.K. CHATTOPADHYAY, J. GHOSH, SUNIL KUMAR and Y.C.
SAXENA
IPR/RR-573/2012 NOVEMBER 2012

PLASMA RESPONSE TO TRANSIENT HIGH VOLTAGE PULSES

S. KAR and S. MUKHERJEE
IPR/RR-574/2012 NOVEMBER 2012

EXPERIMENTAL OBSERVATION OF LEFT POLARIZED WAVE ABSORPTION
NEAR ELECTRON CYCLOTRON RESONANCE FREQUENCY IN HELICON
ANTENNA PRODUCED PLASMA

KSHITISH K.BARADA, P.K. CHATTOPADHYAY, J. GHOSH, SUNIL KUMAR and Y.C.
SAXENA
IPR/RR-575/2012 NOVEMBER 2012

OPACITY AND ATOMIC ANALYSIS OF DOUBLE PULSE LASER ABLATED
PLASMA

V. SIVAKUMARAN, AJAI KUMAR and H.C. JOSHI
IPR/RR-576/2012 NOVEMBER 2012

MHD FLOW METER CALIBRATION USING NUMERICAL TOOLS

S. SAHU, R. P. BHATTACHARYAY, A. PATEL, E. RAJENDRAKUMAR, E.PLATACIS,
I.BRUCENIS
IPR/RR-577/2012 NOVEMBER 2012

IMPROVED ELECTRICAL PROPERTIES OF EPITAXIAL MULTIFERROIC BiFeO₃
FILMS BY OXYGEN RF PLASMA TREATMENT

DEEPTI KOTHARI, SANJAY UPADHYAY, C. JARIWALA, P. M. RAOLE and
V.RAGHAVENDRA REDDY
IPR/RR-578/2012 NOVEMBER 2012

PLASMA HEATING BY ELECTRIC FIELD COMPRESSION

K. AVINASH and P.K. KAW
IPR/RR-579/2012 NOVEMBER 2012

DIFFERENT SYNTHESIS ROUTES OF LaNbO_4 AND ITS EFFECT ON ELECTRICAL PROPERTIES

DEEPTI KOTHARI and P. M. RAOLE

IPR/RR-580/2012 DECEMBER 2012

2013

ROLE OF ION TEMPERATURE ON SCRAPE-OFF LAYER PLASMA TURBULENCE

N. BISAI and P. K. KAW

IPR/RR-581/2013 JANUARY 2013

APPLICATION OF X-RAY DIFFRACTION IN CHARACTERIZATION OF PLASMA PROCESSED MATERIALS

P. A. RAYJADA and P. M. RAOLE

IPR/RR-582/2013 FEBRUARY 2013

SINGLE IMAGE SUPER-RESOLUTION VIA NON SUB-SAMPLE CONTOURLET TRANSFORM BASED LEARNING AND A GABOR PRIOR

AMISHA J. SHAH, RUJUL MAKWANA, SURYAKANT B. GUPTA

IPR/RR-583/2013 FEBRUARY 2013

DEVELOPMENT OF IMAGE PROCESSING BASED ARC LOCATION IDENTIFIER

RASHMI S. JOSHI and SURYAKANT B. GUPTA

IPR/RR-584/2013 FEBRUARY 2013

MODIFICATION OF PLASMA FLOWS WITH GAS PUFF IN THE SCRAPE-OFF LAYER OF ADITYA TOKAMAK

DEEPAK SANGWAN, RATNESHWAR JHA, JANA BROTKOVA, and M.V.GOPALKRISHNA

IPR/RR-585/2013 FEBRUARY 2013

PERFORMANCE OF LARGE ELECTRON ENERGY FILTER IN LARGE VOLUME PLASMA DEVICE

S. K. SINGH, P. K. SRIVASTAVA, L. M. AWASTHI, S. K. MATTOO, R. SINGH and P. K. KAW

IPR/RR-586/2013 FEBRUARY 2013

MICROWAVE SYNTHESIS OF TUNGSTEN COPPER FUNCTIONALLY GRADED MATERIAL FOR PLASMA FACING COMPONENTS

CHARULATA DUBE, YASHASHRI PATIL, SHAILESH KANPARA, S.S.

KHIRWADKAR, SUBHASH C.KASHYAP

IPR/RR-587/2013 FEBRUARY 2013

VALIDITY OF THE GENERALIZED BOHM CRITERION IN A MULTIPLE ION SPECIES PLASMA

DEVENDRA SHARMA and P.K. KAW

IPR/RR-588/2013 MARCH 2013

NEUTRONIC SHIELD ASSESSMENT STUDY FOR ITER TBM EQUATORIAL PORT NO.2: ISSUES & EVALUATION OF POSSIBLE SOLUTIONS

H.L. SWAMI, C. DANANI, E. RAJENDRA KUMAR, L. GAINCARLI

IPR/RR-589/2013 APRIL 2013

INFLUENCE OF PLASMA SURFACE INTERACTIONS ON TOKAMAK STARTUP
RAJIV GOSWAMI

IPR/RR-590/2013 APRIL 2013

EXPERIMENTAL STUDY OF THE NATURE OF LIQUID METAL FLOW UNDER
UNIFORM TRANSVERSE MAGNETIC FIELD, IN A CHANNEL WHICH CONSIST OF
SHARP 90° BENDS

ANITA PATEL, R. BHATTACHARYAY, E. RAJENDRA KUMAR, P.K. SWAIN, P.
SATYAMURTHY, S. IVANOV, A. SHISHKO

IPR/RR-591/2013 APRIL 2013

FLUCTUATIONS AND INTERMITTENT POLOIDAL TRANSPORT IN A SIMPLE
TOROIDAL PLASMA

T.S. GOUD, R. GANESH, Y.C. SAXENA and D. RAJU

IPR/RR-592/2013 APRIL 2013

CURVED SMALL TUNGSTEN (W) MACRO-BRUSH TEST MOCK-UP FABRICATION
USING VACUUM BRAZING FOR DIVERTOR TARGET ELEMENT

K.P. SINGH, S.S. KHIRWADKAR, ATUL PRAJAPATI, M.S. KHAN, SUNIL BELSARE,
ALPESH PATEL, KEDAR BHOPE, PRAKASH MOKARIA, NIKUNJ PATEL

IPR/RR-593/2013 APRIL 2013

STUDY OF HALL THRUSTER PERFORMANCE DUE TO MAGNETIC MIRROR
EFFECTS

DEEPTI SHARMA, R. SRINIVASAN and M. KUNDU

IPR/RR-594/2013 APRIL 2013

STUDY OF TRANSMISSION LINE ATTENUATION IN BROAD BAND MILLIMETER
WAVE FREQUENCY RANGE

HITESH KUMAR B. PANDYA, MAX AUSTIN, R.F. ELLIS

IPR/RR-595/2013 MAY 2013

ANALYSIS OF JUNCTION DISCONTINUITY EFFECTS ON THE MULTI-ELEMENT
COUPLED LINES

RANA PRATAP YADAV, SUNIL KUMAR and S.V. KULKARNI

IPR/RR-596/2013 MAY 2013

MULTISTAGE ION ACCELERATION IN FINITE OVERDENSE TARGET WITH A
RELATIVISTIC LASER PULSE

UJJWAL SINHA

IPR/RR-597/2013 MAY 2013

FAULT PROTECTION AND OVERLOAD DIAGNOSIS IN A "REGULATED HIGH
VOLTAGE POWER SUPPLY" (80 KV, 130A)

PARESH PATEL, C. B. SUMOD, D. P. THAKKAR, L.N. GUPTA, V. B. PATEL, L. K.
BANSAL, K. QURESHI, V. VADHER and U.K. BARUAH

IPR/RR-598/2013 JUNE 2013

COHERENT NONLINEAR STRUCTURES IN ITG-ZONAL FLOWS SYSTEM
RAMESWAR SINGH, R. SINGH, P. KAW and P.H. DIAMOND
IPR/RR-599/2013 JUNE 2013

MEASUREMENT OF THERMAL DIFFUSIVITY/CONDUCTIVITY OF Li₂TiO₃
PELLETS FOR TRITIUM BREEDER MATERIALS BY LASER FLASH METHOD AND
ITS
COMPARISON WITH FINITE ELEMENT SIMULATION
PARITOSH CHAUDHURI
IPR/RR-600/2013 JULY 2013

3-D SIMULATIONS OF PLASMA TRANSPORT IN THE RING LIMITER SCRAPE-OFF
LAYER OF TOKAMAK ADITYA
DEVENDRA SHARMA, RATNESHWAR JHA, YUHE FENG, and FRANCESCO
SARDEI
IPR/RR-601/2013 JULY 2013

TRANSPORT DRIVEN PLASMA FLOWS IN THE SCRAPE-OFF LAYER OF ADITYA
TOKAMAK IN POSITIVE AND NEGATIVE HELICITIES
DEEPAK SANGWAN, RATNESHWAR JHA, JANA BROTKOVA, AND
M.V.GOPALKRISHNA
IPR/RR-602/2013 JULY 2013

DYNAMICS OF LASER-BLOW-OFF INDUCED Li PLASMA PLUME IN CONFINED
GEOMETRY
BHUPESH KUMAR, RAJESH K SINGH, and AJAI KUMAR
IPR/RR-603/2013 JULY 2013

ELECTROMAGNETIC SECONDARY INSTABILITIES OF COUPLED WHISTLER -
ETG TURBULENCE
S. K. SINGH, RAMESWAR SINGH, L. M. AWASTHI, R. SINGH and P. K. KAW
IPR/RR-604/2013 JULY 2013

PRELIMINARY CORROSION STUDIES ON STRUCTURAL MATERIAL P-91 IN
LEAD-LITHIUM FOR INDIAN LLCB TBM
A. SARADA SREE, TANAJI KAMBLE, POULAMI CHAKRABORTY, R.K. FOTEDAR,
E. RAJENDRA KUMAR, A.K. SURI, PLATICIS E, ZIKS A, POZNIJAK A, SHISKO A
IPR/RR-605/2013 JULY 2013

DESIGN AND DEVELOPMENT OF DISTRIBUTED CONTROL SYSTEM FOR SST-1
THOMSON SCATTERING EXPERIMENT
VISHNU CHAUDHARI, KIRAN PATEL, AMIT SRIVASTAVA, JINTO THOMAS and
AJAI KUMAR
IPR/RR-606/2013 JULY 2013

PLASMA RESPONSE TO ELECTRON ENERGY FILTER IN LVPD
A. K. SANYASI, L. M. AWASTHI, S. K. MATTOO, P. K. SRIVASTAVA, S. K. SINGH,
R. SINGH and P. K. KAW
IPR/RR-607/2013 JULY 2013

SUPPRESSION OF RAYLEIGH TAYLOR INSTABILITY IN STRONGLY COUPLED PLASMAS

AMITA DAS and PREDHIMAN KAW

IPR/RR-608/2013 JULY 2013

AN ANALYSIS OF JUNCTION DISCONTINUITY EFFECTS IN THE MULTI-ELEMENT COUPLED LINES AND ITS DIMINUTION AT DESIGNING STAGE

RANA PRATAP YADAV, SUNIL KUMAR and S.V. KULKARANI

IPR/RR-609/2013 JULY 2013

PREDICTIVE 2-D SOL PLASMA TRANSPORT MODELING OF PHASE-I OPERATIONS OF TOKAMAKS SST-1 USING SOLPS5

M. HIMABINDU, ANIL TYAGI, DEVENDRA SHARMA, SHISHIR P. DESHPANDE, and XAVIER BONNIN

IPR/RR-610/2013 AUGUST 2013

SECOND HARMONIC ION CYCLOTRON RESONANCE HEATING SCENARIOS OF ADITYA TOKAMAK PLASMA

ASIM KUMAR CHATTOPADHYAY, S. V. KULKARNI, R. SRINIVASAN, and ADITYA TEAM

IPR/RR-611/2013 AUGUST 2013

GAS AND SOLID PHASE REACTION STUDY IN CH₄/N₂ DIELECTRIC BARRIER DISCHARGE PLASMA

ABHIJIT MAJUMDAR, SANDHAN CHANDRA DAS, BASUDEV GHOSH, SUBROTO MUKHERJEE and RAINER HIPPLER

IPR/RR-612/2013 AUGUST 2013

FEASIBILITY OF ECE MEASUREMENTS USING HILBERT-TRANSFORM SPECTRAL ANALYSIS

YURIY DIVIN, and HITESH KUMAR B. PANDYA

IPR/RR-613/2013 SEPTEMBER 2013

COMMISSIONING AND TEST OF RADIATION TRANSPORT TOOL ATILLA WITH DMP IN CPP-IPR NEUTRON CLUSTER

C. DANANI, A. BORTHAKUR, N. TALUKDAR and B. J. SAIKIA

IPR/RR-614/2013 SEPTEMBER 2013

COLLISIONAL ABSORPTION OF LASER LIGHT IN UNDER-DENSE PLASMA: THE ROLE OF COULOMB LOGARITHM

M. KUNDU

IPR/RR-615/2013 SEPTEMBER 2013

EXPERIMENTAL INVESTIGATION & THERMAL ANALYSIS OF HEAT-PIPE OVEN

MILIND A. PATEL, KRUNAL PATEL, MOHANDAS K.K., RAVI A. V. KUMAR

IPR/RR-616/2013 SEPTEMBER 2013

MECHANICAL, ELECTRICAL EVALUATION AND TEST RESULTS OF COMPOSITE INSULATION MATERIALS AT CRYOGENIC TEMPERATURE

RAJIV SHARMA, V. L. TANNA, S. FALNIKAR and S. PRADHAN

IPR/RR-617/2013 SEPTEMBER 2013

AMPLITUDE MEDIATED CHIMERA STATES
GAUTAM C SETHIA, ABHIJIT SEN, and GEORGE L. JOHNSTON
IPR/RR-618/2013 OCTOBER 2013

EXCITATION FUNCTION OF THE $^{55}\text{Fe}(n,p)^{55}\text{Mn}$ REACTION FROM THRESHOLD
TO 20 MeV
BHAWNA PANDEY, P.M. PRAJAPATI, S. JAKHAR, C.V.S. RAO, T.K. BASU, B.K.
NAYAK, A. SAXENA, and S.V. SURYANARAYANA
IPR/RR-619/2013 OCTOBER 2013

PLASMA ASSISTED MICROWAVE SINTERING OF TUNGSTEN IN MULTIMODE
MICROWAVE APPLICATOR
CHARU LATA DUBE, YASHASHRI PATIL, SHAILESH KANPARA, S.S.
KHIRWADKAR, SUBHASH C. KASHYAP
IPR/RR-620/2013 OCTOBER 2013

MOMENTUM TRANSPORT IN THE VICINITY OF q_{min} IN REVERSE SHEAR
TOKAMAKS DUE TO ITG TURBULENCE
RAMESWAR SINGH, R SINGH, HOGUN JHANG, P H DIAMOND
IPR/RR-621/2013 OCTOBER 2013

TOWARDS LONG-TIME CONFINEMENT IN SMARTEX-C
LAVKESH LACHHVANI and SAMBARAN PAHARI
IPR/RR-622/2013 OCTOBER 2013

DEFORMATION OF SINGLE CRYSTAL IRON AT VERY HIGH STRAIN RATES: A
MOLECULAR DYNAMICS STUDY
S. RAWAT and P.M. RAOLE
IPR/RR-623/2013 NOVEMBER 2013

DISRUPTION AVOIDANCE USING BIASED ELECTRODE IN ADITYA TOKAMAK
PRAVESH DHYANI, J. GHOSH, P. K. CHATTOPADHYAY, R.L. TANNA, D. RAJU, S.
JOISA, A.K. CHATTOPADHYAYA, DEBJYOTI BASU, N. RAMAIYA, S. KUMAR, K.
SATHYANARAYANA, S.B. BHATT, P.K. ATREY, C.N. GUPTA, C.V.S. RAO, R. JHA,
Y.C. SAXENA, and R.N. PAL
IPR/RR-624/2013 NOVEMBER 2013

EXPERIMENTAL AND FINITE ELEMENT ANALYSIS OF DISTORTION FOR THIN
PLATE WELDING
M. ZUBER, V. CHAUDHARI, S.K. ALBERT, S.B. PATIL, V.K. SURI
IPR/RR-625/2013 NOVEMBER 2013

OBSERVATION OF SELF-ORGANIZED DYNAMIC TOROIDAL STRUCTURES IN
DUSTY PLASMA
MANJIT KAUR, DEVENDRA SHARMA, P. K. CHATTOPADHYAY, J. GHOSH, and Y.
C. SAXENA
IPR/RR-626/2013 DECEMBER 2013

NUMERICAL STUDIES ON HELIUM COOLED DIVERTOR FINGER MOCK UP WITH
SECTORIAL EXTENDED SURFACES

SANDEEP RIMZA, KAMALAKANTA SATPATHY, SAMIR KHIRWADKAR,
KARUPANNA VELUSAMY

IPR/RR-627/2013 DECEMBER 2013

CHIMERA STATES: THE EXISTENCE CRITERIA REVISITED

GAUTAM C SETHIA and ABHIJIT SEN

IPR/RR-628/2013 DECEMBER 2013

INERTIA DRIVEN RADIAL BREATHING AND NONLINEAR RELAXATION IN
CYLINDRICALLY CONFINED PURE ELECTRON PLASMA

M.SENGUPTA and R.GANESH

IPR/RR-629/2013 DECEMBER 2013

2014

EXPERIMENTAL AND FINITE ELEMENT ANALYSIS OF TEMPERATURE
DISTRIBUTION DURING GTA WELDING FOR MODIFIED 9CR-1MO STEEL

M.ZUBER, S.K.ALBERT, M.VASUDEVAN, V.CHAUDHRI, V.K.SURI

IPR/RR-630/2014 JANUARY 2014

DESIGN AND DEVELOPMENT OF ULTRA-WIDEBAND 3DB HYBRID COUPLER
FOR ICRF HEATING IN TOKAMAK

RANA PRATAP YADAV, SUNIL KUMAR and S.V. KULKARNI

IPR/RR-631/2014 JANUARY 2014

ULTRA SLOW EM WAVE PROPAGATION CHARACTERISTICS OF
METAMATERIAL LOADED HELICAL GUIDE

D.K. SHARMA and S.K. PATHAK

IPR/RR-632/2014 JANUARY 2014

EFFECT OF POLARIZATION AND FOCUSING ON LASER PULSE DRIVEN AUTO-
RESONANT PARTICLE ACCELERATION

VIKRAM SAGAR, SUDIP SENGUPTA and PREDHIMAN KAW

IPR/RR-633/2014 JANUARY 2014

PLASMA PARAMETER CHARACTERISATION OF CYLINDRICAL MAGNETRON
DISCHARGE OPERATING IN ARGON-NITROGEN GAS

R.RANE, S.MUKHERJEE

IPR/RR-634/2014 JANUARY 2014

PROPERTIES OF GRAVITATIONALLY EQUILIBRATED YUKAWA SYSTEMS - A
MOLECULAR DYNAMICS STUDY

HARISH CHARAN, RAJARAMAN GANESH, and ASHWIN J.

IPR/RR-635/2014 JANUARY 2014

TRANSIENT EVOLUTION OF ELECTRON ENERGY DISTRIBUTION FUNCTION OF
SOLITARY ELECTRON HOLES IN LABORATORY PLASMAS

MANGILAL CHOUDHARY, S. KAR and S. MUKHERJEE

IPR/RR-636/2014 JANUARY 2014

GLOBAL GYROKINETIC STABILITY OF COLLISIONLESS MICROTEARING
MODES IN LARGE ASPECT RATIO TOKAMAKS
ADITYA K SWAMY, R. GANESH, J. CHOWDHURY, S. BRUNNER, J. VACLAVIK, and
L. VILLARD
IPR/RR-637/2014 JANUARY 2014

FAST WAVE ABSORPTION SCENARIOS IN ION CYCLOTRON FREQUENCY
RANGE IN L-MODE PLASMA OF SST-1
ASIM KUMAR CHATTOPADHYAY and R. SRINIVASAN
IPR/RR-638/2014 FEBRUARY 2014

INVESTIGATION OF SURROGATE METHOD FOR $^{55}\text{Fe}(n,p)^{55}\text{Mn}$ REACTION
CROSS-SECTION MEASUREMENT
BHAWNA PANDEY, P.M. PRAJAPATI, S. JAKHAR, C.V.S. RAO, T. K. BASU, B.K.
NAYAK, A. SAXENA, S.V. SURYANARAYANA
IPR/RR-639/2014 FEBRUARY 2014

R & D ON HIGH TEMPERATURE ESTER BASED INSULATION
PRIYANKA BRAHMBHATT, NITISH KUMAR, SUBRATA PRADHAN
IPR/RR-640/2014 FEBRUARY 2014

A SET UP FOR BIASED ELECTRODE EXPERIMENT IN ADITYA TOKAMAK
PRAVESH DHYANI, JOYDEEP GHOSH, SATHYANARAYANA, PRAVEENLAL V E,
PRAMILA, MINSHA SHAH, R.L. TANNA, PINTU KUMAR, C. CHAVDA, N.C. PATEL,
V. PANCHAL,
C.N. GUPTA, K.A. JADEJA, S.B. BHATT, S. KUMAR, D. RAJU, P.K. ATREY, S. JOISA,
P.K. CHATTOPADHYAY, Y. C. SAXENA and ADITYA TEAM
IPR/RR-641/2014 FEBRUARY 2014

ON USE OF AN OBLIQUE VIEW ELECTRON CYCLOTRON EMISSION(ECE)
DETECTOR IN ITER FOR GETTING A BETTER RADIAL RESOLUTION AND
SIGNATURE OF THE PRESENCE OF
NON-THERMAL ELECTRON POPULATIONS
P.V. SUBHASH, YASHIKA GHAI, AMIT K. SINGH, A. MEHARAJ BEGUM, and P.
VASU
IPR/RR-642/2014 FEBRUARY 2014

EFFECT OF A SMALL FRACTION OF NON-THERMAL ELECTRONS ON
TEMPERATURE MEASUREMENT USING ELECTRON CYCLOTRON EMISSION
DIAGNOSTICS FOR
ITER-SCENARIO-2: A COMPUTATIONAL PARAMETRIC STUDY
P.V. SUBHASH, NIKITA CHHETRI, TRUPTI SHARMA, A. MEHARAJ BEGUM,
HITESH KUMAR B. PANDYA, and P. VASU
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TURBULENCE IN TWO DIMENSIONAL VISCO-ELASTIC MEDIUM
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M. ZUBAIRUDDIN, S. K. ALBERT, S. MAHADEVAN, M. VASUDEVAN, V.
CHAUDHARI and V. K. SURI
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NEUTRON TRANSPORT EQUATION AND INTRODUCTION TO ATTLA SOFTWARE
DEEPAK AGGARWAL, H L SWAMI, A K SHAW, B J SAIKIA, C DANANI
IPR/RR-646/2014 MARCH 2014

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YASHASHRI PATIL, S S KHIRWADKAR, S M BELSARE, RAJAMANNAR SWAMY,
M S KHAN, S TRIPATHI, K BHOPE, D. KRISHNAN, P MOKARIA, N PATEL, I
ANTWALA, K GALODIYA,
M MEHTA, T PATEL
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THEORETICAL STUDY OF HEAD-ON COLLISION OF DUST ACOUSTIC SOLITARY
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S. JAISWAL, P. BANDYOPADHYAY and A. SEN
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TIME OF FLIGHT STUDIES OF LITHIUM PLASMA IN DOUBLE PULSE LASER
ABLATION: EVIDENCE OF INVERSE BREMMSTRAHLUNG ABSORPTION
V. SIVAKUMARAN, H. C. JOSHI, R. K. SINGH and AJAI KUMAR
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THERMAL PERFORMANCE OF DIVERTOR FINGER MOCK-UP
SANDEEP RIMZA, KAMALAKANTA SATPATHY, SAMIR KHIRWADKAR,
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A. N. SHARMA, S. PRADHAN, Y. KHRISTI, U. PRASAD, K. DOSHI, P. VARMORA, V.
L. TANNA, D. PATEL, A. PANCHAL
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RITESH SUGANDHI, RAJAMANNAR SWAMY, SAMIR KHIRWADKAR
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ELECTRODE IN ADITYA TOKAMAK
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NIRAL, S. KUMAR, K. SATHYANARAYANA, S.B. BHATT, P.K. ATREY, C.N. GUPTA, C.V.S. RAO, RATNESHWAR JHA, Y.C. SAXENA and ADITYA TEAM
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A. ABHISHEK, M. WARRIER, R. GANESH
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OBSERVATION OF TRANSIENT ELECTRIC FIELDS IN PARTICLE-IN-CELL SIMULATION OF CAPACITIVELY COUPLED DISCHARGES
S. SHARMA, S. K. MISHRA and PREDHIMAN K. KAW
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MODHUCHANDRA LAISHRAM, DEVENDRA SHARMA, and PREDHIMAN K. KAW
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KELVIN-HELMHOLTZ INSTABILITY IN DUSTY PLASMA MEDIUM: FLUID AND PARTICLE APPROACH
SANAT TIWARI, VIKRAM DHARODI, AMITA DAS, PREDHIMAN KAW and ABHIJIT SEN
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VIKRAM SINGH DHARODI, SANAT KUMAR TIWARI, and AMITA DAS
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MECHANICAL PROPERTIES AND MICROSTRUCTURAL INVESTIGATIONS OF TIG WELDED 40 MM AND 60 MM THICK SS 316L SAMPLES FOR FUSION REACTOR VACUUM VESSEL APPLICATIONS
RAMESH KUMAR BUDDU, N. L. CHAUHAN and P. M. RAOLE
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N. I. JAMNAPARA, STEFANO FRANGINI, J. ALPHONSA, N. L. CHAUHAN, and S. MUKHERJEE
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SURFACE CHEMISTRY AND WETTABILITY STUDY OF AIR PLASMA TREATED POLYETHYLENE BY ATMOSPHERIC PRESSURE DIELECTRIC BARRIER DISCHARGE
P. KIKANI, V. JAIN, B. DESAI, A. VISANI and S.K. NEMA

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COLLECTIVE DYNAMICS IN STRONGLY COUPLED DUSTY PLASMA MEDIUM
AMITA DAS, VIKRAM DHARODI and SANAT TIWARI

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DETERMINATION OF ROTATIONAL, VIBRATIONAL AND ELECTRON
TEMPERATURES IN DIELECTRIC BARRIER DISCHARGE IN AIR AT
ATMOSPHERIC PRESSURE

N. CHANDWANI, M.B.CHOWDHURI, S.K.NEMA, and S.MUKHERJEE

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POSITRON ANNIHILATION LIFETIME MEASUREMENT ON HEAVY ION
IRRADIATED POLYCRYSTALLINE TUNGSTEN

CHARU LATA DUBE, D. DUTTA, P. K. PUJARI, P. K. KULRIYA, and S. S.
KHRIWADKAR

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SUPER-CRITICAL VAPOR-LIQUID PHASE TRANSITION IN DUSTY PLASMAS

M. KUNDU, K. AVINASH, A. SEN, and R. GANESH

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KIRAN PATEL, K.A. JADEJA, S.B.BHATT and AJAI KUMAR

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LASER-BLOW-OFF OF THIN FILM

BHUPESH KUMAR, R K SINGH, SUDIP SENGUPTA, P K KAW, and AJAI KUMAR

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BORA

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DEBRAJ MANDAL and DEVENDRA SHARMA

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AJAY DEEP KACHHVAH and ABHIJIT SEN

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A DESIGN APPROACH TO A QUASI-OPTICAL PULSED MICROWAVE
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K.SATHYANARAYANA, DHARUV SOLANKI, PARITOSH CHAUDHURI, TUSHAR
PANCHAL, NIDHI SHAH, SHAMBHAVI SINGH and S.V. KULKARNI
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WALL CHARGING OF A HELICON ANTENNA WRAPPED PLASMA FILLED
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KSHITISH K. BARADA, P.K. CHATTOPADHYAY, J. GHOSH, Y.C. SAXENA and D.
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UPENDRA PRASAD, P. RAJ, and S.PRADHAN
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SENSITIVITY ANALYSIS ON PREDICTED MICROWAVE PERFORMANCE OF
MODE CONVERTERS WITH GEOMETRICAL TOLERANCES FOR 42 GHZ
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K.SATHYANARAYANA, NIDHI SHAH, TUSHAR PANCHAL, SHAMBHAVI SINGH
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ANALYTICAL ESTIMATE OF PHASE MIXING TIME OF LONGITUDINAL
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S.K. SHARMA, P. BHARATHI, V. PRAHLAD, P.J. PATEL, B. CHOKSI, M.R. JANA,
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OBSERVATION OF DUST TORUS WITH POLOIDAL ROTATION IN DC GLOW
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MANJIT KAUR, SAYAK BOSE, P. K. CHATTOPADHYAY, DEVENDRA SHARMA, J.
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IMPED - A NEW MAGNETIZED LINEAR PLASMA DEVICE WITH WIDE
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SAYAK BOSE, MANJIT KAUR, P.K. CHATTOPADHYAY, J. GHOSH and Y.C.
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SHEATH HEATING IN CCP DISCHARGES VIA NON-SINUSOIDAL CURRENT
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S. SHARMA, S. K. MISHRA, P. K. KAW, A. DAS, N. SIRSE and M. M. TURNER
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TIME DELAY EFFECTS ON THE AGING TRANSITION IN A POPULATION OF
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BHUMIKA THAKUR, DEVENDRA SHARMA and ABHIJIT SEN
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INVERSE MIRROR PLASMA EXPERIMENTAL DEVICE (IMPED) - A MAGNETISED
LINEAR PLASMA DEVICE FOR WAVE STUDIES
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EMISSION ANALYSIS OF LASER PRODUCED BARIUM PLASMA PLUME
R. K. SINGH, H. C. JOSHI, and AJAI KUMAR
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MODE CHARACTERIZATION OF CO₂ LASER BEAM WELDING OF SS304L
RAMESH KUMAR BUDDU, N.L.CHAUHAN, P.M.RAOLE and HARSHAD NATU
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INFLUENCE OF ARGON GAS ADDITION ON GROWTH AND PROPERTIES OF SnO₂ THIN FILM BY PLASMA ASSISTED THERMAL EVAPORATION

C. JARIWALA, S. DAS, P. A. RAYJADA, R. RANE, N. CHAUHAN, and P. M. RAOLE
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EXCITATION FUNCTION OF $^{56}\text{Fe}(n, \gamma)^{53}\text{Cr}$ REACTION FROM THRESHOLD TO 20 MeV FOR FUSION APPLICATIONS

P. M. PRAJAPATI, BHAWNA PANDEY, S. JAKHAR, C.V. S. RAO, T. K. BASU, B. K. NAYAK, S. V. SURYANARAYANA and A. SAXENA
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DYNAMICS OF COMPRESSIONAL MACH CONES IN A STRONGLY COUPLED COMPLEX PLASMA

P. BANDYOPADHYAY, R. DEY, SANGEETA and ABHIJIT SEN
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THE STUDY OF ELECTROMAGNETIC CUSP SOLITONS

DEEPA VERMA, AMITA DAS, PREDHIMAN KAW and SANAT KUMAR TIWARI
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DYNAMICAL PROGRAMMING BASED TURBULENCE VELOCIMETRY FOR FAST VISIBLE IMAGING OF TOKAMAK PLASMA

SANTANU BANERJEE, H. ZUSHI, N. NISHINO, K. MISHRA, T. ONCHI, A. KUZMIN, Y. NAGASHIMA, K. HANADA, K. NAKAMURA, H. IDEI, M. HASEGAWA, and A. FUJISAWA
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SIMULATION OF RADIATION DAMAGE BY EMPLOYING 120 MeV GOLD ION IRRADIATION ON TUNGSTEN

CHARU LATA DUBE, PAWAN KUMAR KULRIYA, YASHASHRI PATIL, PRIYANKA PATEL, and SAMIR S. KHIRWADKAR
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I-V CHARACTERISTICS AND CRYOGENIC STABILITY STUDY OF MgB₂ STRAND UPENDRA PRASAD, Z. KHAN, P. RAJ, A. KUNDU, A. PANCHAL and S. PRADHAN

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PARTICLE-IN-CELL SIMULATION OF LARGE AMPLITUDE ION-ACOUSTIC SOLITONS

SARVESHWAR SHARMA, SUDIP SENGUPTA, and ABHIJIT SEN
IPR/RR-697/2014 SEPTEMBER 2014

NONLINEAR WAVE EXCITATIONS BY ORBITING CHARGED SPACE DEBRIS OBJECTS

ABHIJIT SEN, SANAT TIWARI, SANJAY MISHRA, and PREDHIMAN KAW
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THE EQUILIBRIUM PROPERTIES OF MAGNETIZED PLASMA COLUMN IN PRESENCE OF CONDUCTING END-PLATE

S.K. KARKARI, H. KABARIYA, S. GANDHI, D. PATEL, C. SONEJI, and S. K. MISHRA
IPR/RR-699/2014 OCTOBER 2014

CONFINEMENT AND RE-EXPANSION OF LASER INDUCED PLASMA IN
TRANSVERSE MAGNETIC FIELD: DYNAMICAL BEHAVIOUR AND
GEOMETRICAL ASPECT OF EXPANDING PLUME

NARAYAN BEHERA, R. K. SINGH, and AJAI KUMAR
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A SIMPLE EXPERIMENTAL METHOD TO DETERMINE MAGNETIC FIELD
TOPOLOGY IN TOROIDAL PLASMA DEVICES

SHEKAR G. THATIPAMULA, UMESH K. SHUKLA, R. GANESH1, Y. C. SAXENA, and
D. RAJU

IPR/RR-701/2014 OCTOBER 2014

REACTION MECHANISM STUDY OF NEUTRON WITH ^{55}Fe AND PROTON WITH
 ^{55}Mn SYSTEM FOR SURROGATE MEASUREMENT

BHAWNA PANDEY, SUDHIRSINH VALA, CVS RAO, T.K. BASU, and B. SARKAR
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FLOW STRUCTURE AND SHEAR GENERATION IN 3D SOL OF CIRCULAR
TOKAMAK PLASMA IN ADITYA

BIBHU PRASAD SAHOO, DEVENDRA SHARMA, RATNESHWAR JHA, and YUHE
FENG

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MOLECULAR DYNAMICS SIMULATIONS OF SOLITONS IN A DUSTY PLASMA
MEDIUM

SANAT KUMAR TIWARI, AMITA DAS, ABHIJIT SEN, and PREDHIMAN KAW
IPR/RR-704/2014 NOVEMBER 2014

TRITIUM BREEDING MOCK-UP EXPERIMENTS CONTAINING LITHIUM
TITANATE CERAMIC PEBBLES AND LEAD IRRADIATED WITH DT NEUTRONS
SHRICHAND JAKHAR, M ABHANGI, S TIWARI, R MAKWANA, V CHAUDHARI, H
L SWAMI, C DANANI, C V S RAO, T K BASU, D MANDAL, SONALI BHADRE, R V
KOLEKAR, P J REDDY, R.

BHATTACHARYAY, and P CHAUDHURI

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COMPARATIVE STUDY OF ELECTRICAL BREAKDOWN PROPERTIES OF
DEIONIZED WATER AND HEAVY WATER UNDER PULSED POWER CONDITIONS

G.VEDA PRAKASH, R KUMAR, SAURABH KUMAR, NASIR S SHAH, ANITHA
V.P.and A.SHYAM

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1D3V PIC SIMULATION OF PROPAGATION OF RELATIVISTIC BEAM IN AN
INHOMOGENEOUS PLASMA

CHANDRASHEKHAR SHUKLA, AMITA DAS, and KARTIK PATEL

IPR/RR-707/2014 DECEMBER 2014

OBSERVATION OF THE RAYLEIGH-BENARD CONVECTION CELLS IN STRONGLY COUPLED YUKAWA LIQUIDS

HARISH CHARAN and RAJARAMAN GANESH

IPR/RR-708/2014 DECEMBER 2014

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ROLE OF NEUTRAL GAS IN SCRAPE-OFF LAYER TOKAMAK PLASMA

N BISAI, R JHA, and P K KAW

IPR/RR-709/2015 JANUARY 2015

ROLE OF SMALL SPECIMEN TESTING TECHNIQUES IN THE DEVELOPMENT OF DIVERTOR MATERIALS

CHARU LATA DUBE, YASHASHRI PATIL, SHAILESH KANPARA, S.S.

KHIRWADKAR, V. KARTHIK, and T. JAYAKUMAR

IPR/RR-710/2015 JANUARY 2015

PHASE TRANSFORMATION OF ALUMINA COATING BY PLASMA ASSISTED TEMPERING OF ALUMINIZED 9Cr-1Mo STEELS

N. I. JAMNAPARA, S. MUKHERJEE, and A. S. KHANNA

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SYNCHRONIZATION BETWEEN TWO COUPLED DC GLOW DISCHARGE PLASMA SOURCES

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

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EFFECT OF MICROWAVE POWER TO THE ELECTRON TEMPERATURE AND ELECTRON DENSITY IN DEUTERIUM PLASMA GENERATED BY ELECTRON CYCLOTRON RESONANCE

A. T. T. MOSTAKO, SUDHIRSINH VALA, R. J. MAKWANA, NIRAL VIRANI, J.

GHOSH, R. MANCHANDA, C. V. S. RAO and T. K. BASU

IPR/RR-713/2015 FEBRUARY 2015

AN AUTOMATED APPROACH FOR REAL TIME DIAGNOSTICS OF ESD EVENTS AT TRIPLE JUNCTION

R. S. JOSHI and S. B. GUPTA

IPR/RR-714/2015 FEBRUARY 2015

ADAPTIVE DIRECTIONAL DECOMPOSITION IN NON SUB SAMPLE CONTOURLET TRANSFORM DOMAIN FOR SINGLE IMAGE SUPER RESOLUTION

AMISHA J. SHAH and SURYAKANT B. GUPTA

IPR/RR-715/2015 FEBRUARY 2015

MAGNESIUM DIBORIDE BASED PROTOTYPE ELM COIL FABRICATION, CHARACTERISATION AND AC TRANSPORT CURRENT INDUCED LOSS ESTIMATION: A FEASIBILITY STUDY

ANANYA KUNDU, SUBRATA PRADHAN, ARUN PANCHAL, ANEES BANO,

PIYUSH RAJ, SUBRAT KUMAR DAS, and NITISH KUMAR

IPR/RR-716/2015 MARCH 2015

ANALYTIC STRUCTURE OF A DRAG DRIVEN CONFINED DUST VORTEX FLOW
IN PLASMA

MODHUCHANDRA LAISHRAM, DEVENDRA SHARMA, and PREDHIMAN K. KAW
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ENHANCEMENT IN GAS DIFFUSION BARRIER PROPERTY OF POLYETHYLENE
BY DEPOSITION OF NANO SCALE SIOX FILMS BY PECVD

P. KIKANI, P. VITHLANI, and S. K. NEMA
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A MOLECULAR DYNAMICS STUDY OF PHASE TRANSITION IN STRONGLY
COUPLED PAIR-ION PLASMAS

SWATI BARUAH, R. GANESH, and K. AVINASH
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MULTIDIRECTIONAL PLASMA FLOW MEASUREMENT BY GUNDESTRUP PROBE
IN SCRAPE-OFF LAYER OF ADITYA TOKAMAK

DEEPAK SANGWAN, RATNESHWAR JHA, and RAKESH L. TANNA
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LOCALIZED ELECTRON HEATING AND DENSITY PEAKING IN DOWNSTREAM
HELICON PLASMA

SOUMEN GHOSH, K. K. BARADA, P. K. CHATTOPADHYAY, J. GHOSH, and D.
BORA
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AN EXPERIMENTAL INVESTIGATION OF HELIUM COOLED DIVERTOR FINGER
MOCK-UPS

SANDEEP RIMZA, SAMIR KHIRWADKAR, and KARUPPANNA VELUSAMY
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LINEAR AND NONLINEAR EVOLUTION OF THE ION RESONANCE INSTABILITY
IN CYLINDRICAL TRAPS: A NUMERICAL STUDY

M.SENGUPTA and R.GANESH
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INVESTIGATION OF SHOCK-SHOCK INTERACTION AND MACH REFLECTION IN
LATERALLY COLLIDING LBO PLASMAS

BHUPESH KUMAR, R K SINGH, SUDIP SENGUPTA, P K KAW, and AJAI KUMAR
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FLUID SIMULATION OF RELATIVISTIC ELECTRON BEAM DRIVEN WAKEFIELD
IN A COLD PLASMA

RATAN KUMAR BERA, SUDIP SENGUPTA, and AMITA DAS
IPR/RR-725/2015 APRIL 2015

COLLISIONLESS MICROTEARING MODES IN HOT TOKAMAKS: EFFECT OF
TRAPPED ELECTRONS

ADITYA K SWAMY, GANESH, S. BRUNNER, J. VACLAVIK, and L. VILLARD
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SUPERCONDUCTING SAMPLE CHARACTERIZATION FACILITY DEVELOPMENT
EMPLOYING PULSE TUBE CRYOCOOLER AND ITS VALIDATION
ANANYA KUNDU, ANEES BANO, SUBRAT KUMAR DAS, DHAVAL BHAVSAR, and
SUBRATA PRADHAN
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GENERATION OF MULTIPLE TOROIDAL DUST VORTICES BY NON-MONOTONIC
DENSITY GRADIENT IN DIRECT CURRENT GLOW DISCHARGE PLASMA
MANJIT KAUR, SAYAK BOSE, P. K. CHATTOPADHYAY, D. SHARMA, J. GHOSH, Y.
C. SAXENA, and EDWARD THOMAS JR.
IPR/RR-728/2015 MAY 2015

NEUTRON FLUX SPECTRA INVESTIGATIONS IN BREEDING BLANKET
ASSEMBLY CONTAINING LITHIUM TITANATE AND LEAD IRRADIATED WITH
DT NEUTRONS
SHRICHAND JAKHAR, S TIWARI, M ABHANGI, V CHAUDHARI, R MAKWANA, C
V S RAO, T K BASU, and D MANDAL
IPR/RR-729/2015 MAY 2015

SIMULATION STUDY FOR SLIT APERTURE BASED EXTRACTION SYSTEM OF A
POSITIVE ION SOURCE
B. CHOKSI, S. K. SHARMA, V. PRAHLAD, P. BHARATHI, and U.K. BARUAH
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PARAMETRIC STUDY ON THE PERFORMANCE OF A PLANE-PIN PROBE IN
MAGNETIZED PLASMA
S. BINWAL, S. GANDHI, H. KABARIYA and S. K. KARKARI
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DUSTY PLASMA EXPERIMENTAL (DPE_x) DEVICE FOR COMPLEX PLASMA
EXPERIMENTS WITH FLOW
S. JAISWAL, P. BANDYOPADHYAY, and A. SEN
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DESIGN OF THE 1.5MW ULTRA-WIDEBAND 3DB HIGH POWER HYBRID
COUPLER FOR ICRF HEATING IN FUSION GRADE REACTOR
RANA PRATAP YADAVA, SUNIL KUMAR, and S.V. KULKARNI
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NONLINEARLY INTERACTING TRAPPED PARTICLE SOLITONS IN
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DEBRAJ MANDAL, and DEVENDRA SHARMA
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CPED - A TEST BED FOR STUDYING DUST VORTICES AND OTHER COLLECTIVE
PHENOMENA
MANJIT KAURA, SAYAK BOSE, P. K. CHATTOPADHYAY, J. GHOSH, and Y. C.
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MEASUREMENT OF NEUTRON INDUCED HYDROGEN PRODUCTION CROSS-
SECTION FROM RADIONUCLIDE ^{55}Fe BY SURROGATE REACTION METHOD FOR
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BHAWNA PANDEY, B.K. NAYAK, ALOK SAXENA, S.V. SURYANARAYANA, V.
DESAI, R. MAKAWANA, M. ABHANGI, T.K.BASU, CVS RAO, S.JAKHAR, S. VALA,
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P.V. SUBHASH, GUNJAN INDAULIYA, T. SAI CHAITANYA, S. JAKHAR, SANJEEV
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ANALYSIS OF EDGE TURBULENCE IMAGING DATA IN NSTX OHMIC PLASMAS
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PRELIMINARY CORROSION STUDIES OF INDIAN REDUCED FERRITIC
MARTENSITIC STEEL WITH STAGNANT LEAD-LITHIUM AT 823 K

A. SARADA SREE, HEMANG S. AGRAVAT, JIGNESH CHAUHAN, and E.
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2-D STUDIES OF RELATIVISTIC ELECTRON BEAM PLASMA INSTABILITIES IN
AN INHOMOGENEOUS PLASMA

CHANDRASHEKHAR SHUKLA, and AMITA DAS
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INHOMOGENEOUS ELECTRON TEMPERATURE ASSISTED NEGATIVE ION
PRODUCTION IN A MAGNETIZED PLASMA COLUMN

S. K. KARKARI, S. BINWAL, M. SHASTRI, S. GANDHI, H. KABARIYA and M.
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R. RANE, M. BANDYOPADHYAY, M. RANJAN, and S. MUKHERJEE
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KOLMOGOROV FLOW IN TWO DIMENSIONAL STRONGLY COUPLED YUKAWA LIQUID: A MOLECULAR DYNAMICS STUDY
AKANKSHA GUPTA, RAJARAMAN GANESH, and ASHWIN JOY
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INFLUENCE OF HEAT INPUT CONDITIONS STUDY ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF NARROW GROOVE MULTIPASS TIG WELDS OF SS304
RAMESH KUMAR BUDDU and SANDEEP BHAGVAT
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K.P SINGH, ALPESH PATEL, KEDAR BHOPE, NIKUNJ PATEL and S.S KHIRWADKAR
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OPTIMIZATION OF POLOIDAL FIELD COIL SYSTEM FOR SST-2 FUSION REACTOR
D. GARG, R. SRINIVASAN, D. SHARMA and U. PRASAD
IPR/RR-749/2015 OCTOBER 2015

ACHIEVING OF ULTRAHIGH VACUUM IN AN UNBAKED CHAMBER WITH GLOW DISCHARGE CLEANING
ZIAUDDIN KHAN, PRATIBHA SEMWAL, KALPESH R DHANANI, DILIP C RAVAL and SUBRATA PRADHAN
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AN ADVANCED HELIUM COOLED DIVERTOR HEAT SINK CONCEPT
SANDEEP RIMZA, SAMIR KHIRWADKAR and KARUPANNA VELUSAMY
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EXPERIMENTAL OBSERVATION OF PRECURSOR SOLITONS IN A FLOWING COMPLEX PLASMA
SURABHI JAISWAL, P. BANDYOPADHYAY and A. SEN
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INTERPLAY BETWEEN ENERGETIC ION FLUX AND RE-DEPOSITION OF SPUTTERED ATOMS DURING SPUTTER EROSION AT NORMAL INCIDENCE IN ACCORDANCE WITH NONLINEARITY

PURVEE JOSHI, MUKESH RANJAN, STEFAN FACSKO, RENE HUEBNER and
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SUB AND SUPER-LUMINAR PROPAGATION OF STRUCTURES SATISFYING
POYNTING LIKE THEOREM FOR INCOMPRESSIBLE GHD FLUID MODEL
DEPICTING STRONGLY COUPLED
DUSTY PLASMA MEDIUM
VIKRAM DHARODI, AMITA DAS, BHAVESH PATEL and PREDHIMAN KAW
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THERMO-MECHANICAL ANALYSIS OF MULTI-PASS GTA WELDING OF GRADE
91 STEEL PLATES
M. ZUBAIRUDDIN, S. K. ALBERT, M.VASUDEVAN, S. MAHADEVAN, V.
CHAUDHARI and V. K. SURI
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DROPLET SHAPED ANODE DOUBLE LAYER AND ELECTRON SHEATH
FORMATION IN MAGNETICALLY CONSTRICTED ANODE
S.CHAUHAN, M.RANJAN, M.BANDYOPADHYAY and S.MUKHERJEE
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TEARING AND SURFACE PRESERVING ELECTRON MAGNETOHYDRODYNAMIC
MODES IN A CURRENT LAYER
GURUDATT GAUR and PREDHIMAN K. KAW
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MINORITY HEATING SCENARIOS IN 4He(H) AND 3He(H) SST-1 PLASMA
ASIM KUMAR CHATTOPADHYAY
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MEASUREMENT OF DC PLASMA SHEATH POTENTIALS USING LASER HEATED
EMISSIVE PROBES
K. VARA PRASAD, PAYAL MEHTA, ARUN SARMA, and J. GHOSH
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WAKES AND PRECURSOR SOLITON EXCITATIONS BY A MOVING CHARGED
OBJECT IN A PLASMA
SANAT KUMAR TIWARI, and ABHIJIT SEN
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BEHAVIOR OF NON-THERMAL ELECTRONS DURING ECR PRE-IONIZATION AT
ADITYA TOKAMAK
S. PUROHIT, Y. S. JOISA, J. V. RAVAL, M. B. CHOWDHURI, B. K. SHUKLA, R.
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FLUCTUATION INDUCED GRADIENT SCALE VARIATIONS IN LIMITER SOL
PLASMA TRANSPORT SIMULATIONS OF ADITYA
BIBHU PRASAD SAHOO, DEVENDRA SHARMA, RATNESHWAR JHA and YUHE
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ATOMISTIC INTERACTION OF Ag WITH SILICA UNDER SUB MONOLAYER
GROWTH ON NANO RIPPLED SiO₂ SURFACE
M. BHATNAGAR, M. RANJAN, R. HELLER, K. JOLLEY, R. SMITH, S. MUKHERJEE
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ANALYSIS OF NEUTRAL PARTICLE ANALYZER MEASUREMENTS ON THE
ADITYA TOKAMAK FOR ESTIMATING NEUTRAL HYDROGEN DENSITIES AND
CORE ION TEMPERATURES DURING OHMIC PLASMA DISCHARGES
KUMAR AJAY, SANTOSH P. PANDYA, SNEHLATA GUPTA AGARWAL and the
ADITYA Team
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RESIDUAL IMAGE ANALYSIS FOR OPTICAL ALIGNMENT USING A QUADRANT
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S. SUNIL, AMIT K SRIVASTAVA and ZIAUDDIN KHAN
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NARROW GROOVE TIG WELD JOINTS FABRICATION AND MECHANICAL
PROPERTIES CHARACTERIZATION OF 40 MM THICK SS316L SAMPLES FOR
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RAMESH KUMAR BUDDU and SANDIP BHAGVAT
IPR/RR-766/2015 DECEMBER 2015

STUDY OF PLASMA NITRIDING AND NITROCARBURIZING ON AISI 430 F
JERRITIC STAINLESS STEEL FOR HIGH HARDNESS & CORROSION RESISTANCE
J. ALPHONSA, S. MUKHERJEE and V.S. RAJA
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NOVEL DESIGN OF EMISSIVE PROBE FOR PLASMA POTENTIAL
MEASUREMENTS
A. K. SANYASI, P. K. SRIVASTAVA and L. M. AWASTHI
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TRANSPORT AND TRAPPING OF DUST PARTICLES IN A POTENTIAL WELL
CREATED BY INDUCTIVELY COUPLED DIFFUSED PLASMAS
MANGILAL CHOUDHARY, S. MUKHERJEE and P. BANDYOPADHYAY
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RELATIVISTIC ELECTRON BEAM DRIVEN LONGITUDINAL WAKE-WAVE
BREAKING IN A COLD PLASMA
RATAN KUMAR BERA, ARGHYA MUKHERJEE, SUDIP SENGUPTA and AMITA
DAS

IPR/RR-770/2016 JANUARY 2016

PREPARATION OF W/CuCrZr MONO-BLOCK TEST MOCK-UP USING VACUUM BRAZING TECHNIQUE

K. P. SINGH, S. KHIRWADKAR, KEDAR BHOPE, NIKUNJ PATEL, PRAKASH MOKARIA, and MAYUR MEHATA

IPR/RR-771/2016 JANUARY 2016

OBSERVATION OF GEODESIC ACOUSTIC MODE IN SINP-TOKAMAK AND ITS BEHAVIOR WITH VARYING EDGE SAFETY FACTOR

LAVKESH LACHHVANI, J. GHOSH, P. K. CHATTOPADHYAY, NIKHIL CHAKRABARTI, and RABINDRANATH PAL

IPR/RR-772/2016 JANUARY 2016

OBSERVATION OF QUASI-COHERENT EDGE FLUCTUATIONS IN OHMIC PLASMAS ON NSTX

SANTANU BANERJEE, A. DIALLO and S. J. ZWEBEN

IPR/RR-773/2016 FEBRUARY 2016

NUMERICAL MODELLING FOR THE EFFECTIVE THERMAL CONDUCTIVITY OF LITHIUM META TITANATE PEBBLE BED WITH DIFFERENT PACKING STRUCTURES

MAULIK PANCHAL and P. CHAUDHURI

IPR/RR-774/2016 FEBRUARY 2016

PROPAGATION CHARACTERISTICS OF AN EXTREMELY ANISOTROPIC METAMATERIAL LOADED HELICAL GUIDE

DUSHYANT KUMAR SHARMA and SURYA KUMAR PATHAK

IPR/RR-775/2016 FEBRUARY 2016

EXPERIMENTAL STUDY TO IMPROVE ANTI-FELTING CHARACTERISTICS OF MERINO WOOL FIBER BY ATMOSPHERE PRESSURE AIR PLASMA

NISHA CHANDWANI, PURVI DAVE, VISHAL JAIN, S. K. NEMA and S. MUKHERJEE

IPR/RR-776/2016 FEBRUARY 2016

CHIRP-DRIVEN GIANT BGK MODES

PALLAVI TRIVEDI and RAJARAMAN GANESH

IPR/RR-777/2016 FEBRUARY 2016

PHASE MIXING OF RELATIVISTICALLY INTENSE LONGITUDINAL WAVE PACKETS IN A COLD PLASMA

ARGHYA MUKHERJEE and SUDIP SENGUPTA

IPR/RR-778/2016 FEBRUARY 2016

SIMULATION AND EXPERIMENTAL VALIDATION OF SIMPLE POWER SUPPLY ARCHITECTURE FOR GENERATING HIGHER DENSITY O AUGDP IN AIR

VISHAL JAIN, ANAND VISANI, R. SRINIVASAN and VIVEK AGARWAL

IPR/RR-779/2016 MARCH 2016

PERFORMANCE ANALYSES OF MEDIUM SIZED INDIAN FUSION REACTOR

CHANDAN DANANI, B. J. SAIKIA, VINAY MENON, A. N. SHARMA, UPENDRA PRASAD, J. AGRAWAL, M. STEPHAN, NAVEEN RASTOGI, R. PRAGASH, E. RAJENDRA KUMAR, S. PRADHAN, S. KHIRWADKAR, R. GANGRADEY, R. SRINIVASAN, S. P. DESHPANDE and P. K. KAW
IPR/RR-780/2016 MARCH 2016

3-D NUCLEAR ANALYSES OF INDIAN LEAD LITHIUM COOLED CERAMIC BREEDER TBM IN ITER USING ATILA
DEEPAK AGGARWAL, CHANDAN DANANI and RANJITH KUMAR
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SIMULATED THERMAL DYNAMICS OF SILVER CLUSTERS GROWN ON RIPPLED SILICA SURFACE
M. BHATNAGAR and M. RANJAN
IPR/RR-782/2016 MARCH 2016

ON THE ANOMALOUS COLLISIONAL ABSORPTION OF S-POLARIZED LASER LIGHT IN AN UNDER-DENSE PLASMA USING A MONTE CARLO COLLISION ASSISTED PARTICLE-IN-CELL CODE
M. KUNDU
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THERMOHYDRAULIC ANALYSIS OF HYDROFORMED RADIATION SHIELD PLATE
JATIN J CHOPRA, SAMIRAN MUKHERJEE, RANJANA GANGRADEY, ALKESH MAVANI and JYOTI AGARWAL
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MAGNETIC FIELD EFFECT ON HYSTERESIS DYNAMICS AND LOW FREQUENCY SELF-EXCITED OSCILLATIONS IN REFLEX PLASMA SOURCE
R. RANE, M. BANDOPADHYAY, A. N. SEKHAR IYENGAR and S. MUKHERJEE
IPR/RR-785/2016 MARCH 2016

CONFINEMENT TIME OF ELECTRON PLASMA APPROACHING MAGNETIC PUMPING TRANSPORT LIMIT IN SMALL ASPECT RATIO TORUS
LAVKESH LACHHVANI, SAMBARAN PAHARI, RAJIV GOSWAMI, MANU BAJPAI, YOGESH YEOLE and P. K. CHATTOPADHYAY
IPR/RR-786/2016 MARCH 2016

AN APPROACH TO OPTIMIZE RFQ CAVITY USING SUPERFISH CODE
MRIDULA MITTAL AND RENU BAHL
IPR/RR-787/2016 MARCH 2016

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, KANU G. PARMAR, HIREN MISTRI, JIGHESH BHAGRA, BHAVESH PRAJAPATI, KARTIK PATEL, MANAS BHUYAN, MEHUL GOUSWAMI, MAINAK BANDYOPADHYAY and ARUN K. CHAKRABORTY

IPR/RR-788/2016 MARCH 2016

OBSERVATION OF PLASMA SHIFT IN SST-1 USING OPTICAL IMAGING
DIAGNOSTICS

MANOJ KUMAR, CHESTA PARMAR, VISHNU CHAUDHARY, AJAI KUMAR, and
SST-1 TEAM

IPR/RR-789/2016 APRIL 2016

ACTIVATION ANALYSES OF INDIAN LEAD LITHIUM CERAMIC BREEDER TEST
BLANKET MODULE IN ITER

A. K. SHAW, H. L. SWAMI and C. DANANI

IPR/RR-790/2016 APRIL 2016

ROLE OF NEUTRAL GAS IN SCRAPE-OFF LAYER OF TOKAMAK PLASMAS IN
THE PRESENCE OF FINITE ELECTRON TEMPERATURE AND ITS GRADIENT

N. BISAI and P. K. KAW

IPR/RR-791/2016 APRIL 2016

LEBT OPTIMIZATION FOR BEAM MATCHING STUDIES

MRIDULA MITTAL and RENU BAHL

IPR/RR-792/2016 APRIL 2016

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

IPR/RR-793/2016 APRIL 2016

DESIGN OF COOLING SYSTEM FOR 1 MEV RADIO FREQUENCY QUADRUPOLE
SUMIT KUMAR, RENU BAHL, B. SARKAR and ANURAG SHYAM

IPR/RR-794/2016 APRIL 2016

SINGLE PARTICLE CLOSED ORBITS IN YUKAWA POTENTIAL

RUPAK MUKHERJEE and SOBHAN SOUNDA

IPR/RR-795/2016 APRIL 2016

TF RIPPLE ANALYSIS FOR SST-2 LIKE TOKAMAK FUSION REACTOR

SOMESWAR DUTTA, AASHOO SHARMA, UPENDRA PRASAD, VINAY MENON, C.
DANANI, R. SRINIVASAN, S. PRADHAN, S. S. KHIRWADKAR, RAJENDRA KUMAR,
S. DESHPANDE, AMITA DAS, D. BORA and P. K. KAW

IPR/RR-796/2016 APRIL 2016

USE OF LANGMUIR PROBES IN DUSTY (COMPLEX) PLASMA

SAYAK BOSE, MANJIT KAUR, P. K. CHATTOPADHYAY, J. GHOSH, Y. C. SAXENA
and R. PAL

IPR/RR-797/2016 APRIL 2016

STRUCTURAL, MECHANICAL AND CORROSION RESISTANCE PROPERTIES OF
TI/TIN BILAYERS DEPOSITED BY MAGNETRON SPUTTERING ON AISI 316L

K. SHUKLA, R. RANE, J. ALPHONSA, P. MAITY, S. MUKHERJEE and Y. K.
AGRAWAL

IPR/RR-798/2016 APRIL 2016

COLLISIONLESS SHEATH FEATURES OF CAPACITIVELY COUPLED PLASMA DISCHARGES OPERATING WITH CURRENT DRIVEN TRIPLE FREQUENCY CONFIGURATION

S. SHARMA, S. K. MISHRA, P. K. KAW and M. M. TURNER

IPR/RR-799/2016 APRIL 2016

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

IPR/RR-800/2016 APRIL 2016

STUDY OF DIFFUSION BONDING OF WL10 TO SS JOINING WITH & WITHOUT TITANIUM INTERLAYER USING THERMO MECHANICAL SIMULATOR

K.PREMJIT SINGH, ALPESH PATEL, KEDAR BHOPE, NIKUNJ PATEL, S.S KHIRWADKAR

IPR/RR-801/2016 MAY 2016

CALCULATED DIFFERENTIAL & DOUBLE DIFFERENTIAL CROSS SECTION OF FUSION NEUTRON INDUCED REACTIONS ON NATURAL CHROMIUM

MAYANK RAJPUT, BHAWNA PANDEY, CVS RAO, T.K. BASU, and DHIRAJ BORA

IPR/RR-802/2016 MAY 2016

THEORETICAL CALCULATION OF DIFFERENTIAL AND DOUBLE DIFFERENTIAL CROSS SECTION OF 14 MeV NEUTRON INDUCED REACTIONS ON Fe

MAYANK RAJPUT, BHAWNA PANDEY, G. VAITHEESWARAN, CVS RAO, T.K. BASU, and DHIRAJ BORA

IPR/RR-803/2016 MAY 2016

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

IPR/RR-804/2016 MAY 2016

TRANSIENT THERMAL, STRUCTURAL AND STATIC MAGNETIC FIELD ANALYSES OF 1:1 PROTOTYPE JET ELM CONTROL COILS

ANANYA KUNDU, SUBRATA PRADHAN, MAHESH GHATE, DEVEN KANABAR, SWATI ROY, and NITISH KUMAR

IPR/RR-805/2016 MAY 2016

BREAKING OF LARGE AMPLITUDE ELECTRON PLASMA WAVE IN A MAXWELLIAN PLASMA

ARGHYA MUKHERJEE and SUDIP SENGUPTA

IPR/RR-806/2016 MAY 2016

EXPERIMENTAL INVESTIGATION OF FLOW INDUCED DUST ACOUSTIC SHOCK WAVES IN A COMPLEX PLASMA

S. JAISWAL, P. BANDYOPADHYAY and A. SEN

IPR/RR-807/2016 MAY 2016

MOLECULAR SHEAR HEATING AND VORTEX DYNAMICS IN THERMOSTATED TWODIMENSIONAL YUKAWA LIQUIDS

AKANKSHA GUPTA and RAJARAMAN GANESH

IPR/RR-808/2016 MAY 2016

ROLE OF THERMAL ANCHORING AND HEAT LOAD OPTIMIZATION OF CONDUCTION COOLED BINARY CURRENT LEAD USED IN CRYO-COOLER

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

IPR/RR-809/2016 MAY 2016

MEASUREMENT OF OUTGASSING RATE FOR GTAW WELDED SS304 MATERIALS

MOHSIN BUKHARI, SAMIRAN MUKHERJEE, PARESH PANCHAL, AJITKUMAR

SHUKLA and RANJANA GANGRADEY

IPR/RR-810/2016 MAY 2016

PARTICLE-IN-CELL SIMULATION OF TWODIMENSIONAL ELECTRON VELOCITY SHEAR DRIVEN INSTABILITY IN RELATIVISTIC DOMAIN

CHANDRASEKHAR SHUKLA and AMITA DAS

IPR/RR-811/2016 MAY 2016

A NOVEL TECHNIQUE TOWARDS FABRICATING HIGH CURRENT CARRYING MgB₂ BASED SUPERCONDUCTING JOINTS

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

IPR/RR-812/2016 JUNE 2016

ONE DIMENSIONAL PIC SIMULATION OF RELATIVISTIC BUNEMAN INSTABILITY

ROOPENDRA SINGH RAJAWAT and SUDIP SENGUPTA

IPR/RR-813/2016 JUNE 2016

REACTION KINETIC STUDY & ACTIVATION ENERGY CALCULATION OF Li₂TiO₃ BY THERMO GRAVIMETRIC MEASUREMENT

AROH SHRIVASTAVA and PARITOSH CHAUDHURI

IPR/RR-814/2016 JUNE 2016

FLOWING DUSTY PLASMA EXPERIMENTS: GENERATION OF FLOW AND MEASUREMENT TECHNIQUES

S. JAISWAL, P. BANDYOPADHYAY and A. SEN

IPR/RR-815/2016 JUNE 2016

CODE VALIDATION STUDY: 1-D NUCLEAR ANALYSES OF US DCLL TBM USING ANISN CODE AND ITS COMPARISON WITH THE PUBLISHED RESULTS

DEEPAK AGGARWAL, MAHMOUD Z. YOUSSEF, and CHANDAN DANANI

IPR/RR-816/2016 JULY 2016

ON THE NONLINEAR NATURE OF PLASMA INSTABILITY: THE SUBTLETY AND FAILURE OF LINEAR VLASOV APPROACH TO ADDRESS THE ONSET AND GROWTH OF PLASMA INSTABILITY

HANS SCHAMEL, DEBRAJ MANDAL, and DEVENDRA SHARMA
IPR/RR-817/2016 JULY 2016

COLLECTIVE DYNAMICS OF TIME DELAY COUPLED PHASE OSCILLATORS IN A FRUSTRATED GEOMETRY

BHUMIKA THAKUR, DEVENDRA SHARMA, ABHIJIT SEN and GEORGE L. JOHNSTON
IPR/RR-818/2016 JULY 2016

TRANSITION FROM SINGLE TO MULTIPLE AXIAL POTENTIAL STRUCTURE (MAPS) IN EXPANDING HELICON PLASMA

SOUMEN GHOSH, P. K. CHATTOPADHYAY, J. GHOSH, R. PAL, and D. BORA
IPR/RR-819/2016 JULY 2016

INFLUENCE OF ELECTRON-NEUTRAL ELASTIC COLLISIONS ON THE INSTABILITY OF AN IONCONTAMINATED CYLINDRICAL ELECTRON CLOUD: 2D3V PIC-WITH-MCC SIMULATIONS

M. SENGUPTA and R. GANESH
IPR/RR-820/2016 AUGUST 2016

ELECTRICAL NETWORKING TECHNIQUE FOR MODELLING OF INDUSTRIAL RF PLASMA AND DEVISING ITS MATCHING NETWORK

VISHAL JAIN, ANAND VISANI, R. SRINIVASAN and V. AGARWAL
IPR/RR-821/2016 AUGUST 2016

INVESTIGATION OF DEFECTS IN ALUMINIZED COATINGS PRODUCED BY PLASMA OXIDATION

VAIBHAV BHAVSAR, TARANDIPSINGH DANG, HIREN PATEL, BHARATI REHANI, and NIRAV JAMNAPARA
IPR/RR-822/2016 AUGUST 2016

ANNULAR PLASMA FORMATION BY MAGNETIC APERTURE IN THE HELICON EXPERIMENTAL (HEX) DEVICE

SOUMEN GHOSH, S. YADAV, K. K. BARADA, P. K. CHATTOPADHYAY, J. GHOSH, R. PAL and D. BORA
IPR/RR-823/2016 AUGUST 2016

BN/BNSiO₂ SPUTTERING YIELD SHAPE PROFILES UNDER STATIONARY PLASMA THRUSTER OPERATING CONDITIONS

M. RANJAN, A. SHARMA, A. VAID, V. NANDALAN, H. REVATHI, M. G. JAMES and S. MUKHERJEE
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NUMERICAL MODELING OF LASER-BLOW-OFF PLUME: LATERAL INTERACTIONS OF TWO PLUMES IN PRESENCE OF BACKGROUND PRESSURE
SHARAD K. YADAV, BHUPESH KUMAR, BHAVESH G. PATEL, RAJESH K. SINGH, AMITA DAS, PREDHIMAN K. KAW and AJAI KUMAR

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ATOMISTIC STUDY OF FLOW PAST AN OBSTACLE IN YUKAWA LIQUIDS

HARISH CHARAN and RAJARAMAN GANESH

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FORE-WAKE EXCITATIONS FROM MOVING CHARGED OBJECTS IN A COMPLEX PLASMA

SANAT KUMAR TIWARI and ABHIJIT SEN

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ADITYA K SWAMY, R. GANESH, S. BRUNNER, J. VACLAVIK and L. VILLARD

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EXPERIMENTAL OBSERVATION OF PHASE-FLIP TRANSITIONS IN TWO INDUCTIVELY COUPLED GLOW DISCHARGE PLASMAS

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

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ANHARMONIC RESONANCE ABSORPTION OF SHORT LASER PULSES IN CLUSTERS: A MOLECULAR DYNAMICS SIMULATION STUDY

S. S. MAHALIK and M. KUNDU

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

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MODHUCHANDRA LAISHRAM, DEVENDRA SHARMA and PREDHIMAN K. KAW

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A.K. PANDEY and S.K. KARKARI

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AROH SHRIVASTAVA, NARENDER SINGH and P. CHAUDHURI

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OBSERVATION OF MODE TRANSITION AND LOW FREQUENCY OSCILLATIONS IN MAGNETICALLY CONSTRICTED ANODE

S. CHAUHAN, M. RANJAN, M. BANDYOPADHYAY and S. MUKHERJEE

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IDENTIFICATION AND REMOVAL OF UNWANTED SIGNALS IN PULSED MEASUREMENT

SAYAK BOSE, MANJIT KAUR, K. K. BARADA, J. GHOSH and P. K. CHATTOPADHYAY

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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, YUGESH V. and S. MUKHERJEE

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STUDY OF ION-ION COUNTER STREAMING INSTABILITY IN PRESHEATH-SHEATH REGION OF A MESH GRID IMMERSSED IN LOW TEMPERATURE PLASMA
VARA PRASAD KELLA, J. GHOSH, P. K. CHATTOPADHYAY, D. SHARMA and Y. C. SAXENA

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INFLUENCE OF ARC CURRENT ONTO THE FORMATION OF COBALT BASED NANOSTRUCTURES USING DC ARC DISCHARGE

P. B. ORPE and C. BALASUBRAMANIAN

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VISHAL JAIN, MOHIT VAGADIA, CHIRAG GUJARATI, SAIFALI DALKOTI and VIVEK AGARWAL

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SPINS-IND: PELLET INJECTOR FOR FUELING OF MAGNETICALLY CONFINED FUSION SYSTEMS

RANJANA GANGRADEY, JYOTISHANKAR MISHRA, SAMIRAN MUKHERJEE, PARESH PANCHAL, PRATIK NAYAK and JYOTI AGARWAL

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SANTANU BANERJEE, N. BISAI, D. CHANDRA, P. DHYANI, R. MANCHANDA, M. B. CHOWDHURI, N. RAMAIYA, N. PARMAR, D. SANGWAN, J. GHOSH, R. L. TANNA, P. K. CHATTOPADHYAY, D. RAJU, P. K. ATREY, Y. SHANKAR JOISA, A. SEN, P. K. KAW and THE ADITYA TEAM

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NUCLEAR ANALYSES OF NEUTRON ACTIVATION SYSTEM FOR INDIAN TBM
H. L. SWAMI, A. K. SHAW, A. N. MISTRY, S. TIWARI and C. DANANI

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EXPERIMENTAL OBSERVATION OF SELF EXCITED CO-ROTATING MULTIPLE VORTICES IN A DUSTY PLASMA WITH INHOMOGENEOUS PLASMA BACKGROUND

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NARAYAN BEHERA, R. K. SINGH, V. CHAUDHARI and AJAI KUMAR
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NONLINEAR SIMULATION OF ELM DYNAMICS IN THE PRESENCE OF RESONANT MAGNETIC PERTURBATIONS

D. CHANDRA, A. THYAGARAJA, A. SEN and P. KAW
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DESTABILIZATION OF A CYLINDRICALLY CONFINED ELECTRON CLOUD BY IMPACT IONIZATION OF BACKGROUND NEUTRALS: 2D3V PIC SIMULATION WITH MONTE-CARLO-COLLISIONS

M. SENGUPTA and R. GANESH
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V. YUGESH, G. RAVI and K. RAMACHANDRAN
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DRIVEN PHASE SPACE VORTICES IN PLASMAS WITH NONEXTENSIVE VELOCITY DISTRIBUTION

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NEUTRAL GAS ON SCRAPE-OFF LAYER TOKAMAK PLASMA TURBULENCE

N. BISAI and P. K. KAW
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STUDY OF RAMP RATE LIMITATION AND CURRENT RE-DISTRIBUTION IN YBCO HIGH T_c TRIPLET SUPERCONDUCTING SUB-CABLE

UPENDRA PRASAD, S. PRADHAN and P. VARMORA
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SIMULATION OF TOROIDAL ERROR FIELDS IN ADITYA-U TOKAMAK
A. AMARDAS, D. RAJU, J. GHOSH and ADITYA TEAM
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EFFECTIVE THERMAL CONDUCTIVITY MEASUREMENT OF LITHIUM META
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S. K. JHA, R. SRINIVASAN, D. RAJU, M. V. GOPALAKRISHNA and the SST-1 TEAM
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SYNTHESIS AND CHARACTERIZATION OF PURE TUNGSTEN BY HIGH
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INTERACTION AND PROPAGATION CHARACTERISTICS OF TWO COUNTER AND
CO-PROPAGATING MACH CONES IN A DUSTY PLASMA
P. BANDYOPADHYAY, R. DEY and A. SEN
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JJU BUCH and S. K. PATHAK
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(QL) WHISTLERS IN LARGE LABORATORY PLASMA
A. K. SANYASI, L. M. AWASTHI, P. K. SRIVASTAVA, S. K. MATTOO, D. SHARMA,
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NARENDER SINGH, C. S. SASMAL, AROH SHRIVASTAVA and P. CHAUDHURI

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S. SAHU and R. BHATTACHARYAY

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RATAN KUMAR BERA, SUDIP SENGUPTA and AMITA DAS

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P. K. ATREY, DHAVAL PUJARA, SUBROTO MUKHERJEE and RAKESH L. TANNA

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LANTHANUM BROMIDE (LaBr₃(Ce)) BASED HARD X-RAY SPECTROSCOPIC
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ATREY, R. L. TANNA, K. A. JADEJA, S. B. BHATT, C. N. GUPTA, M. B. KALAL, A.
KUMAR, J. GHOSH and ADITYA TEAM

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INFLUENCE OF GAS INJECTION CONFIGURATION ON THE CHARACTERISTICS OF A DC NONTRANSFERRED PLASMA TORCH

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A NEW LINEAR DEVICE FOR THE STUDY OF STRUCTURES IN ELECTRON MAGNETOHYDRODYNAMIC REGIME

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N. C. PATEL, CHHAYA CHAVDA, PRAVEENLAL E.V., K. S. SHAH, M. N. MAKAWANA, S.K. JHA, M. V. GOPALKRISHANA, K. TAHILIANI, DEEPAK SANGWAN,
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P. K. KAW, D. BORA and the ADITYA TEAM
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S. CHAUHAN, T. BARMAN, M. BHATNAGAR, M. RANJAN and S. MUKHERJEE
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A FEASIBILITY STUDY: MULTI-LAYERED JOINING OF W/Cu-CuCrZr-SS316L-
SS316L COUPON USING VACUUM BRAZING ROUTE
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T. ONCHI, A. KUZMIN and K. MATSUOKA
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ANALYTICAL STUDY OF SOLID HYDROGEN PELLET SPEED IN A GAS GUN INJECTOR
J. MISHRA, R. GANGRADEY, P. NAYAK and S. MUKHERJEE
IPR/RR-910/2017 AUGUST, 2017

ASSESSMENT OF TRITIUM BREEDING PERFORMANCE OF INDIAN SOLID BREEDER DEMO BLANKET
DEEPAK AGGARWAL, DEEPAK SHARMA, CHANDAN DANANI, PARITOSH CHAUDHURI and MAHMOUD Z. YOUSSEF
IPR/RR-911/2017 SEPTEMBER, 2017

EXTERNAL CONTROL OF THE SYNCHRONIZATION DYNAMICS OF TWO INDUCTIVELY COUPLED GLOW DISCHARGE PLASMA SOURCES
NEERAJ CHAUBEY, S. MUKHERJEE and A. SEN
IPR/RR-912/2017 SEPTEMBER, 2017

MAGNETIC SHEAR DAMPED POLAR CONVECTIVE FLUID INSTABILITIES
JYOTI K. ATUL, RAMESWAR SINGH, SANJIB SARKAR, OLEG V. KRAVCHENKO, SUSHIL K. SINGH, PRABAL K. CHATTOPADHYAY and PREDHIMAN K. KAW
IPR/RR-913/2017 SEPTEMBER, 2017

DESIGN OF ROD TYPE RADIO-FREQUENCY QUADRUPOLE FOR ION-IRRADIATION FACILITY

RENU BAHL

IPR/RR-914/2017 SEPTEMBER, 2017

A STUDY ON ACTIVATION CHARACTERISTICS OF CANDIDATE STRUCTURAL MATERIALS OF NEAR TERM FUSION REACTOR AND IMPACT OF THEIR IMPURITIES

H. L. SWAMI, C. DANANI and A. K. SHAW

IPR/RR-915/2017 SEPTEMBER, 2017

OBSERVATIONS OF ELONGATED WHISTLER WAVES IN THE INERTIAL REGIME

GARIMA JOSHI, G. RAVI and S. MUKHERJEE

IPR/RR-916/2017 SEPTEMBER, 2017

PARTICLE-IN-CELL SIMULATION OF BUNEMAN INSTABILITY BEYOND QUASILINEAR SATURATION

ROOPENDRA SINGH RAJAWAT and SUDIP SENGUPTA

IPR/RR-917/2017 SEPTEMBER, 2017

A NEW MULTI LINE-CUSP MAGNETIC FIELD PLASMA DEVICE (MPD) WITH VARIABLE MAGNETIC FIELD FOR BASIC PLASMA STUDIES

A. D. PATEL, M. SHARMA, N. RAMASUBRAMANIAN, R. GANESH and P. K. CHATTOPADHYAY

IPR/RR-918/2017 SEPTEMBER, 2017

RF DESIGN OF PASSIVE ACTIVE MULTIJUNCTION (PAM) ANTENNA FOR LHCD SYSTEM OF ADITYA-UPGRADE TOKAMAK

YOGESH M JAIN, P. K. SHARMA, HARISH DIXIT, AVIRAJ JADHAV, JULIEN HILLAIRET and MARC GONICHE

IPR/RR-919/2017 OCTOBER, 2017

MODELING OF MULTI-SECONDARY TRANSFORMER UTILIZING CIRCUIT SIMULATION SOFTWARE

L. N. GUPTA, S. V. KULKARNI, N. P. SINGH, PARESH J. PATEL, DIPAL THAKKAR, A. PATEL, SUMOD C. B. and U. K. BARUAH

IPR/RR-920/2017 OCTOBER, 2017

TWO PHASE HELIUM COOLING CHARACTERISTICS IN CABLE-IN CONDUIT CONDUCTORS

G. K. SINGH, S. PRADHAN and V. L. TANNA

IPR/RR-921/2017 OCTOBER, 2017

ELECTRON SERIES RESONANCE IN A MAGNETIZED 13.56 MHz SYMMETRIC CAPACITIVE COUPLED DISCHARGE

J. K. JOSHI, S. BINWAL, S. K. KARKARI and SUNIL KUMAR

IPR/RR-922/2017 OCTOBER, 2017

VISCO-RESISTIVE MHD STUDY OF INTERNAL KINK($m=1$) MODES

J. MENDONCA, D. CHANDRA, A. SEN and A. THYAGARAJA

IPR/RR-923/2017 OCTOBER, 2017

CORROSION EXPERIMENTS ON IN-RAFM STEEL IN FLOWING LEAD-LITHIUM FOR INDIAN LLCB TBM

SARADA SREE ATCHUTUNI, ABHISHEK SARASWAT, CHANDRA SEKHAR SASMAL, S. VERMA, ASHOK K. PRAJAPATI, ANKUR JAISWAL, SANDEEP GUPTA, JIGNESH CHAUHAN,
KARISHMA B. PANDYA, MAYANK MAKWANA, HARDIK TAILOR, HEMANG S. AGRAVAT and E. RAJENDRA KUMAR

IPR/RR-924/2017 OCTOBER, 2017

SYNTHESIS OF SILICON CARBIDE NANOWIRES AND MULTI-WALLED NANOTUBES BY THERMAL ARC PLASMA

JIGAR PATEL, BALASUBRAMANIAN C., A. SATYAPRASAD, C. SASMAL

IPR/RR-925/2017 OCTOBER, 2017

PIPE STRESS ANALYSIS OF FIRST WALL HELIUM COOLING SYSTEM FOR CONCEPTUAL DESIGN DEVELOPMENT OF IN LLCB TBM

A. K. VERMA, B. K. YADAV, A. GANDHI, E. R. KUMAR, S. THORVE and R. S. SONI

IPR/RR-926/2017 OCTOBER, 2017

AMPLITUDE MEDIATED CHIMERA STATES WITH ACTIVE AND INACTIVE OSCILLATORS

RUPAK MUKHERJEE and ABHIJIT SEN

IPR/RR-927/2017 OCTOBER, 2017

A MAGNETIC FIELD AUGMENTED SINGLE FREQUENCY CAPACITIVELY COUPLED PLASMA DEVICE

SARVESHWAR SHARMA, IGOR KAGANOVICH, ALEXANDER KHRABROV, PREDHIMAN KAW and ABHIJIT SEN

IPR/RR-928/2017 OCTOBER, 2017

MERGER AND RECONNECTION OF WEIBEL SEPARATED RELATIVISTIC ELECTRON BEAM

CHANDRASEKHAR SHUKLA, ATUL KUMAR, AMITA DAS and BHAVESH PATEL

IPR/RR-929/2017 NOVEMBER, 2017

NEUTRONIC DESIGN OPTIMIZATION OF ITER TBM PORT#2 BIO-SHIELD PLUG

H. L. SWAMI, SANCHIT SHARMA, A. K. SHAW and C. DANANI

IPR/RR-930/2017 NOVEMBER, 2017

PKA, GAS PRODUCTION AND DISPLACEMENT CROSS SECTION (NRT) FOR TUNGSTEN AND CHROMIUM IRRADIATED WITH NEUTRONS AT ENERGIES UP TO 14.1 MeV

MAYANK RAJPUT, S. VALA, P. V. SUBHASH, R. SRINIVASAN, M. ABHANGI and RATNESH KUMAR

IPR/RR-931/2017 NOVEMBER, 2017

COMPRESSIBILITY EFFECTS ON A SHEAR FLOW IN STRONGLY COUPLED DUSTY PLASMA: A STUDY USING COMPUTATIONAL FLUID DYNAMICS - PART I

AKANKSHA GUPTA and RAJARAMAN GANESH
IPR/RR-932/2017 NOVEMBER, 2017

COMPRESSIBLE KOLMOGOROV FLOW IN STRONGLY COUPLED DUSTY
PLASMA USING MOLECULAR DYNAMICS AND COMPUTATIONAL FLUID
DYNAMICS: A COMPARATIVE STUDY - PART II
AKANKSHA GUPTA, RAJARAMAN GANESH and ASHWIN JOY
IPR/RR-933/2017 NOVEMBER, 2017

NUMERICAL SIMULATION OF NON-TRANSFERRED ARC DC PLASMA TORCH
OPERATED WITH SHROUD GAS
K. C. MEHER, G. RAVI, K. RAMACHANDRAN and S. MUKHERJEE
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MAGNETIC PROBE DIAGNOSTICS FOR THE INVESTIGATION OF ARC DYNAMICS
IN A PLASMA TORCH
VIDHI GOYAL, G. RAVI and S. MUKHERJEE
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EFFECT OF FUEL DISTRIBUTION ON THE ONSET OF DETONATION AND SINGLE
SHOT THRUST IN GASEOUS OCTANE-AIR MIXTURE
SUNIL BASSI and SHASHANK CHATURVEDI
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SPIRAL WAVES IN DRIVEN DUSTY PLASMA MEDIUM: GENERALIZED
HYDRODYNAMIC FLUID DESCRIPTION
SANDEEP KUMAR, BHAVESH PATEL and AMITA DAS
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CORROSION STUDY OF IN-RAFMS WITH LEAD LITHIUM IN THERMAL
CONVECTION LOOP
SARADA SREE ATCHUTUNI, HEMANG S. AGRAVAT, SANDEEP GUPTA and E.
RAJENDRA KUMAR
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NON-ISOTHERMAL REACTION KINETIC STUDY FOR THE FORMATION OF
 Li_2TiO_3 BY THERMO GRAVIMETRIC MEASUREMENT
AROH SHRIVASTAVA and PARITOSH CHAUDHURI
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GENERATION AND TRANSPORT OF RUNAWAY ELECTRONS DURING
SAWTEETH CRASH IN ADITYA TOKAMAK
HARSHITA RAJ, J. GHOSH, R. L. TANNA, P. K. CHATTOPADHYAY, D. RAJU, S. K.
JHA, J. RAVAL, Y. S. JOISA, S. PUROHIT, P. K. ATREY, Y. C. SAXENA, R. PAL and
THE ADITYA TEAM
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AN EXPERIMENTAL STUDY ON PNEUMATIC CAPSULE TRANSPORT FOR
NEUTRON ACTIVATION SYSTEM (NAS) FOR IN-LLCB TBM
ARVIND KUMAR, SHAILJA TIWARI and VILAS CHAUDHARI

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ION VORTEX BEAM
CHANDRASEKHAR SHUKLA and AMITA DAS
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COLLECTIVE DYNAMICS OF LARGE ASPECT RATIO DUSTY PLASMA IN AN
INHOMOGENEOUS PLASMA BACKGROUND: FORMATION OF THE CO-
ROTATING VORTEX SERIES
MANGILAL CHOUDHARY, S. MUKHERJEE and P. BANDYOPADHYAY
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DEVELOPMENT OF MEDIUM SIZE DOME & REFLECTOR PLATE FOR ITER LIKE
TOKAMAK
K. P SINGH, S. S. KHIRWADKAR, NIKUNJ PATEL, PRAKASH MOKARIA, KEDAR
BHOPE, SUNIL BELSARE, VINAY MENON, DEEPU K, MAYUR MEHTA, SUDHIR
TRIPATHI, ALPESH PATEL, RAJAMANAR SWAMY, TUSHAR PATEL and KALPESH
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DETECTION OF PNEUMONIA CLOUDS IN CHEST X-RAY USING IMAGE
PROCESSING APPROACH
ABHISHEK SHARMA, GAURAV A. GARG, AGRAJ ABHISHEK, DANIEL RAJU and
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PLASMA PRODUCTION AND PRELIMINARY RESULTS FROM THE ADITYA
UPGRADE TOKAMAK
R. L. TANNA, J. GHOSH, HARSHITA RAJ, ROHIT KUMAR, SUMAN AICH,
VAIBHAV RANJAN, K. A. JADEJA, K. M. PATEL, S. B. BHATT, K.
SATHYANARAYANA, P. K. CHATTOPADHYAY, M. N. MAKWANA, K. S. SHAH, C.
N. GUPTA, V. K. PANCHAL, PRAVEENLAL E. V., BHARAT ARAMBHADIYA,
MINSHA SHAH, VISMAY RAULJI, M. B. CHOWDHURI, S. BANERJEE, R.
MANCHANDA, D. RAJU, P. K. ATREY, UMESH NAGORA, J. RAVAL, Y. S. JOISA, K.
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DESIGN IMPROVEMENT AND THERMALHYDRAULICS OF LLCB TBM FIRST
WALL
DEEPAK SHARMA, PARITOSH CHAUDHURI, S. RANJITHKUMAR and E.
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MODIFICATION OF PLASMA FLOWS IN EDGE AND SOL REGIONS BY
INFLUENCE OF NEUTRAL GAS
N. BISAI, SANTANU BANERJEE and DEEPAK SANGWAN
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A NOVEL TECHNIQUE FOR IN SITU MONITORING OF MIRROR REFLECTIVITY IN CAVITY RING DOWN SPECTROSCOPIC DIAGNOSTIC

D. MUKHOPADHYAY, B. K. DAS, M. BANDYOPADHYAY, DASS SUDHIR and A. CHAKRABORTY

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ENGINEERING DESIGN AND DEVELOPMENT OF LEAD LITHIUM LOOP FOR THERMO-FLUID MHD STUDIES

MRITUNJAY KUMAR, A. PATEL, A. JAISWAL, A. RANJAN, D. MOHANTA, S. SAHU, A. SARASWAT, PRASAD RAO, T. S. RAO, V. MEHTA, RANJITHKUMAR, R. BHATTACHARYAY, E. RAJENDRA KUMAR, S. MALHOTRA and P.

SATYAMURTHY

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SERS BASED DETECTION OF GLUCOSE WITH LOWER CONCENTRATION THAN BLOOD GLUCOSE LEVEL USING PLASMONIC NANOPARTICLE ARRAYS

SOORAJ K. P., MUKESH RANJAN, REKHA RAO and SUBROTO MUKHERJEE

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DYNAMICAL RESONANCE SHIFT AND UNIFICATION OF RESONANCES IN SHORT-PULSE LASER CLUSTER INTERACTION

S. S. MAHALIK and M. KUNDU

IPR/RR-952/2018 JANUARY, 2018

EXPERIMENTAL OBSERVATION OF ION-ION CO-STREAMING INSTABILITY IN THE PRESHEATH REGION OF A MESH GRID IMMERSED IN Ar + He TWO-ION-SPECIES LABORATORY PLASMA

VARA PRASAD KELLA, J. GHOSH, D. SHARMA, Y. C. SAXENA and P. K.

CHATTOPADHYAY

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A DUST PARTICLE BASED TECHNIQUE TO MEASURE POTENTIAL PROFILES IN A PLASMA

GARIMA ARORA, P. BANDYOPADHYAY, HARIPRASAD MG and A. SEN

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A REDUNDANCY APPROACH FOR CO-OPERATIVE AERIAL SURVEY BY USING MULTIPLE UAVs WITHIN OPTIMAL TIME

SHIVAM KUMAR GUPTA, PRAMIT DUTTA, NAVEEN RASTOGI and SHASHANK CHATURVEDI

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ELECTRON HOLE INSTABILITY IN LINEARLY SUB-CRITICAL PLASMAS

DEBRAJ MANDAL, DEVENDRA SHARMA and HANS SCHAMEL

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SUPERSONIC FLOWS PAST AN OBSTACLE IN YUKAWA LIQUIDS

HARISH CHARAN and RAJARAMAN GANESH

IPR/RR-957/2018 JANUARY, 2018

EFFECT OF ALUMINIDE COATINGS ON PENETRATION AND MICROSTRUCTURE OF TIG WELDED 9Cr-1Mo STEEL

ARUNSINH B. ZALA, NIRAV I. JAMNAPARA, VISHVESH J. BADHEKA, SHIJU SAM and MUKESH RANJAN

IPR/RR-958/2018 JANUARY, 2018

DESIGN OF 106 kVA, 20 kHz POWER SUPPLY FOR FEEDING COCKCROFT-WALTON VOLTAGE MULTIPLIER TO GENERATE 500 kV

ARITRA CHAKRABORTY, ASHOK MANKANI, PAUL CHRISTIAN, URMIL THAKKER, AMAL S. and KUMAR SAURABH

IPR/RR-959/2018 JANUARY, 2018

INTERPLAY OF SINGLE PARTICLE AND COLLECTIVE RESPONSE IN MOLECULAR DYNAMICS SIMULATION OF DUSTY PLASMA SYSTEM

SRIMANTA MAITY, AMITA DAS, SANDEEP KUMAR and SANAT KUMAR TIWARI

IPR/RR-960/2018 JANUARY, 2018

COHERENT PHASE SPACE STRUCTURES IN A 1D ELECTROSTATIC PLASMA USING PARTICLE-IN-CELL AND VLASOV SIMULATIONS: A COMPARATIVE STUDY

V. SAINI, S. K. PANDEY, P. TRIVEDI and R. GANESH

IPR/RR-961/2018 JANUARY, 2018

COMPARATIVE STUDY OF DISCHARGE CHARACTERISTICS AND ASSOCIATED FILM GROWTH FOR POST AND INVERTED CYLINDRICAL MAGNETRON SPUTTERING

R. RANE, A. JOSHI, A. SATYAPRASAD and S. MUKHERJEE

IPR/RR-962/2018 FEBRUARY, 2018

EXPERIMENTAL INVESTIGATION OF NEAR ANODE PHENOMENON IN INVERTED CYLINDRICAL MAGNETRON DISCHARGE

R. RANE, P. BANDYOPADHYAY, M. BANDYOPADHYAY and S. MUKHERJEE

IPR/RR-963/2018 FEBRUARY, 2018

DUST VORTICES IN A DIRECT CURRENT GLOW DISCHARGE PLASMA: A DELICATE BALANCE BETWEEN ION DRAG AND COULOMB FORCE

SAYAK BOSE, M. KAUR, P. K. CHATTOPADHYAY, J. GHOSH, EDWARD THOMAS JR. and Y. C. SAXENA

IPR/RR-964/2018 FEBRUARY, 2018

COMPRESSIBILITY EFFECTS ON QUASISTATIONARY VORTEX AND TRANSIENT HOLE PATTERNS THROUGH VORTEX MERGER

RUPAK MUKHERJEE, AKANKSHA GUPTA and RAJARAMAN GANESH

IPR/RR-965/2018 FEBRUARY, 2018

DESIGN AND ASSEMBLY OF A MEDIUM SIZE DIPOLE RECTANGULAR HALBACH ARRAY FOR FLOWMETER APPLICATIONS

SRIKANTA SAHU, ASHOK PRAJAPATI, MRITUNJAY KUMAR and RAJENDRAPRASAD BHATTACHARYAY

IPR/RR-966/2018 FEBRUARY, 2018

OBSERVATION OF HIGH FREQUENCY GEODESIC ACOUSTIC-LIKE MODE IN A
SIMPLE TOROIDAL PLASMA

UMESH KUMAR, R. GANESH, K. SATHYANARAYANA and Y. C. SAXENA
IPR/RR-967/2018 MARCH, 2018

DESIGN, DEVELOPMENT AND TESTING OF PROTOTYPE COLD TRAP FOR Pb-Li
PURIFICATION

A. DEOGHAR, A. JAISWAL, P. PRASAD RAO, S. VERMA, C. SASMAL, S. GUPTA, A.
SARASWAT, A. PRAJAPATI, S. SAHU and R. BHATTACHARYAY
IPR/RR-968/2018 MARCH, 2018

ROLE OF ION MAGNETIZATION IN THE FORMATION OF RADIAL DENSITY
PROFILE IN MAGNETICALLY EXPANDING HELICON PLASMA

SONU YADAV, SOUMEN GHOSH, SAYAK BOSE, K. K. BARADA, R. PAL and
PRABAL K. CHATTOPADHYAY
IPR/RR-969/2018 MARCH, 2018

2-D FLUID SIMULATION OF A RIGID RELATIVISTIC ELECTRON BEAM DRIVEN
WAKEFIELD IN A COLD PLASMA

RATAN KUMAR BERA, AMITA DAS and SUDIP SENGUPTA
IPR/RR-970/2018 MARCH, 2018

INFLUENCE OF DRIVING FREQUENCY ON THE METASTABLE ATOMS AND
ELECTRON ENERGY DISTRIBUTION FUNCTION IN A CAPACITIVELY COUPLED
ARGON DISCHARGE

S. SHARMA, N. SIRSE, M. M. TURNER and A. R. ELLINGBOE
IPR/RR-971/2018 MARCH, 2018

DYNAMICS OF DUST EVENTS IN THE GRAPHITE FIRST WALL EQUIPPED SST-1
TOKAMAK

SANTANU BANERJEE, SHWETANG N. PANDYA, R. MANCHANDA, M. B.
CHOWDHURI, N. RAMAIYA, SANTOSH P. PANDYA, J. GHOSH and THE SST-1
TEAM
IPR/RR-972/2018 MARCH, 2018