

## RESEARCH REPORTS (RR) 2021-22

NUMERICAL SIMULATION OF A BI-DIRECTIONAL PLASMA THRUSTER FOR SPACE DEBRIS REMOVAL

V. SAINI and R. GANESH

IPR/RR-1265/2021     APRIL 2021

DEVELOPMENT OF COMPACT MULTIVARIABLE SENSOR PROBE FOR TWO-PHASE DETECTION IN HIGH-TEMPERATURE PbLi-ARGON VERTICAL COLUMNS

ABHISHEK SARASWAT, ASHOKKUMAR PRAJAPATI, RAJENDRAPRASAD BHATTACHARYAY, PARITOSH CHAUDHURI and SATEESH GEDUPUDI

IPR/RR-1266/2021     APRIL 2021

DPEX-II: A NEW DUSTY PLASMA DEVICE CAPABLE OF PRODUCING LARGE SIZED DC COULOMB CRYSTALS

SARAVANAN ARUMUGAM, P. BANDYOPADHYAY, SWARNIMA SINGH, M. G. HARIPRASAD, DINESH RATHOD, GARIMA ARORA and A. SEN

IPR/RR-1267/2021     APRIL 2021

CONTROLLING THE ROTATION OF DRIFT TEARING MODES BY BIASED ELECTRODE IN ADITYA-U TOKAMAK

TANMAY MACWAN, KAUSHLINDER SINGH, SUMAN DOLUI, ANKIT KUMAR, HARSHITA RAJ, P. GAUTAM, PRAVEENLAL EDAPPALA, J. GHOSH, R. L. TANNA, ROHIT KUMAR, K. A. JADEJA, K. M. PATEL, SUMAN AICH, S. K. JHA, D. RAJU, P. K. CHATTOPADHYAY, A. SEN, Y. C. SAXENA, R. PAL and ADITYA-U TEAM

IPR/RR-1268/2021     APRIL 2021

DEMONSTRATION OF HEAT FLUX UNIFORMITY BY INFRARED IMAGING IN HIGH HEAT FLUX TEST FACILITY AT IPR

KEDAR BHOPE, SUNIL BELSARE, SAMIR KHIRWADKAR, VINAY MENON, MAYUR MEHTA, RAJAMANNAR SWAMY, NIKUNJ PATEL, TUSHAR PATEL, SUDHIR TRIPATHI, K. P. SINGH and PRAKASH MOKARIYA

IPR/RR-1269/2021     APRIL 2021

THE STUDY OF THE EFFECT OF COMPRESSIVE STRESS ON CRITICAL CURRENT OF HIGH TEMPERATURE SUPERCONDUCTING TAPES

ANEES BANO, UPENDRA PRASAD, ARUNSINH ZALA and R. SRINIVASAN

IPR/RR-1270/2021     APRIL 2021

EMERGENCE OF DIRECTED MOTION IN A 2D SYSTEM OF YUKAWA PARTICLES ON 1D ASYMMETRIC RATCHET

ANSHIKA CHUGH and RAJARAMAN GANESH

IPR/RR-1271/2021     APRIL 2021

GAS-PUFF INDUCED COLD PULSE PROPAGATION IN ADITYA-U TOKAMAK

TANMAY MACWAN, HARSHITA RAJ, KAUSHLINDER SINGH, SUMAN DOLUI, SHARVIL PATEL, ANKIT KUMAR, P. GAUTAM, J. GHOSH, R. L. TANNA, K. A. JADEJA, K. M. PATEL, ROHIT KUMAR, SUMAN AICH, V. K. PANCHAL, UMESH NAGORA, M. B. CHOWDHURI, R. MANCHANDA, NANDINI YADAVA, RITU DEY, KIRAN PATEL, J. RAVAL, S. K. PATHAK, M. K. GUPTA, K. TAHILIANI, P. K. CHATTOPADHYAY, A. SEN, Y. C. SAXENA, R. PAL and ADITYA-U TEAM

IPR/RR-1272/2021     APRIL 2021

PRELIMINARY ESTIMATION OF RADIONUCLIDES GENERATION IN A FUSION REACTOR ENVIRONMENT FOR MEDICAL AND INDUSTRIAL APPLICATIONS  
SHRICHAND JAKHAR  
IPR/RR-1273/2021     APRIL 2021

ION ENERGY DISTRIBUTION FUNCTION IN VERY HIGH FREQUENCY CAPACITIVE DISCHARGES EXCITED BY SAWTOOTH WAVEFORM  
SARVESHWAR SHARMA, NISHANT SIRSE, ANIMESH KULEY and MILES M. TURNER  
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EXCITATION OF ELECTROSTATIC STANDING WAVE IN THE SUPERPOSITION OF TWO COUNTER PROPAGATING RELATIVISTIC WHISTLER WAVES  
MITHUN KARMAKAR, SUDIP SENGUPTA and BHAVESH PATEL  
IPR/RR-1275/2021     APRIL 2021

POROUS STRUCTURE AND ITS IMPACT ON HYDROGEN ADSORPTION IN ACTIVATED CARBONS  
ARUP SARKAR, J. S. MISHRA, R. GANGRADEY, P. PANCHAL, S. MUKHERJEE, P. NAYAK and V. GUPTA  
IPR/RR-1276/2021     MAY 2021

POLARIZATION INDEPENDENT MULTI-BAND META-SURFACE ABSORBER  
B. RISCOB, N. RAJAN BABU, ABHISHEK SINHA, VARSHA SIJU and S. K. PATHAK  
IPR/RR-1277/2021     MAY 2021

RCS REDUCTION USING RESISTIVE-INK BASED METASURFACE ABSORBER  
PRIYANKA TIWARI, SURYA KUMAR PATHAK and VARSHA SIJU  
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DESIGN, DEVELOPMENT AND CHARACTERIZATION OF BROADBAND POLARIZATION- INSENSITIVE METASURFACE ABSORBER USING FOUR GAMMA-SHAPED RESISTIVE ARMS FOR RCS REDUCTION  
PRIYANKA TIWARI, SURYA KUMAR PATHAK and VARSHA SIJU  
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PERFORMANCE ASSESSMENT OF A COMPACT VOLUMETRIC NEUTRON SOURCE AS A BREEDER  
VINAY MENON, UPENDRA PRASAD, HEMANG AGRAVAT, DEEPTI SHARMA, H. L. SWAMI and R. SRINIVASAN  
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EFFECT OF HEATING RATE AND PRECURSOR COMPOSITION ON SECONDARY PHASE FORMATION DURING CZTS THIN FILM GROWTH AND ITS PROPERTIES  
SAGAR AGRAWAL, BALASUBRAMANIAN C., SUBROTO MUKHERJEE, RINKAL KANANI, KISHORE K. MADUPU and SANDIP DHARA  
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STUDY OF THE PLASTIC PELLETT TRANSFER CHARACTERISTIC THROUGH THE CURVED GUIDE TUBE  
JYOTI SHANKAR MISHRA, DHAVAL NIMAVAT, RANJANA GANGRADEY, SAMIRAN MUKHERJEE, VISHAL GUPTA, PRATIK NAYAK and PARESH PANCHAL  
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TRAPPED PARTICLE INSTABILITY IN: I HOMOGENEOUS VLASOV PLASMAS  
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TRAPPED PARTICLE INSTABILITY IN: II INHOMOGENEOUS VLASOV PLASMAS  
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CHARACTERIZATION OF A MULTICUSP ION SOURCE WITH TWO GRID EXTRACTION SYSTEM  
FOR STUDYING EXTRACTION AND TRANSPORT OF ION BEAM  
BHARAT SINGH RAWAT, S. K. SHARMA, B. CHOKSI, P. BHARATHI, B. SRIDHAR, L. N. GUPTA, D.  
THAKKAR, S. L. PARMAR, V. PRAHLAD and U. K. BARUAH  
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ANALYSIS OF POST OPERATION RADIATION HAZARDS IN IECF NEUTRON SOURCE FACILITY AT  
CPP-IPR  
H. L. SWAMI, S. R. MOHANTY, S. VALA, R. SRINIVASAN and R. KUMAR  
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SPOT FORMATION IN 3D YUKAWA LIQUID  
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CURRENT DRIVE EXPERIMENTS IN SST1 TOKAMAK WITH LOWER HYBRID WAVES  
P.K. SHARMA, D. RAJU, S.K. PATHAK, R. SRINIVASAN, K. K. AMBULKAR, P.R. PARMAR, C.G.  
VIRANI, J. KUMAR, S. SHARMA, C. SINGH, A.L. THAKUR, V.L. TANNA, U. PRASAD, Z. KHAN, D.C.  
RAVAL, C.N. GUPTA, B. KRISHNAN, S. NAIR, D.K. SHARMA, B. DOSHI, M. VASANI, K. MAHAJAN,  
R. RAJPAL, R. MANCHANDA, K. ASUDANI, M.K. GUPTA, M.B. CHOWDHURI, R.L. TANNA and SST-1  
& DIAGNOSTIC TEAMS  
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WIDEBAND CIRCULARLY POLARIZED CONCENTRIC CYLINDRICAL DIELECTRIC RESONATOR  
ANTENNA EXCITED BY HELIX  
AJAY KUMAR PANDEY and SURYA KUMAR PATHAK  
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REFLECTION OF A DUST ACOUSTIC SOLITARY WAVE IN A WEAKLY COUPLED DUSTY PLASMA  
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EFFECT OF PARTICLE MASS INHOMOGENEITY ON THE TWO-DIMENSIONAL RAYLEIGH-  
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STUDIES ON THE ROLE OF ION MASS AND ENERGY IN THE DEFECT PRODUCTION IN  
IRRADIATION EXPERIMENTS IN TUNGSTEN  
P. N. MAYA, S. MUKHERJEE, P. SHARMA, V. KARKI, M. SINGH, S. JULIE, P. KIKANI, A.  
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TERAHERTZ EMISSION FROM LASER INTERACTION WITH NANO-PARTICLES EMBEDDED ARGON  
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P. VARSHNEY, A. P. SINGH, M. KUNDU and K. GOPAL  
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A DIAGNOSTIC FOR MEASURING RADIAL PROFILE OF VISIBLE CONTINUUM RADIATION FROM ADITYA-U TOKAMAK PLASMAS

M. B. CHOWDHURI, R. MANCHANDA, J. GHOSH, N. YADAVA, KINJAL PATEL, N. RAMAIYA, S. PATEL, M. SHAH, R. RAJPAL, U. C. NAGORA, S. K. PATHAK, J. RAVAL, M. K. GUPTA, ROHIT KUMAR, SUMAN AICH, K. A. JADEJA, R. L. TANNA and ADITYA-U TEAM  
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IMPROVED-CONFINEMENT WITH VARYING TOROIDAL ROTATIONS IN NEON-SEEDED ADITYA-U PLASMAS

M. B. CHOWDHURI, K. SHAH, J. GHOSH, G. SHUKLA, R. L. TANNA, K. A. JADEJA, R. MANCHANDA, N. YADAVA, N. RAMAIYA, S. PATEL, K. M. PATEL, TANMAY MACWAN, U. C. NAGORA, S. K. PATHAK, J. V. RAVAL, M. K. GUPTA, S. K. JHA, M. V. GOPALAKRISHNA, K. TAHILIANI, ROHIT KUMAR, SUMAN AICH, SUMAN DOLUI, KAUSHLENDER SINGH, N. BISAI, V. BALAKRISHNAN, C. N. GUPTA and ADITYA-U TEAM  
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EXPERIMENTAL VALIDATION OF UNIVERSAL PLASMA BLOB FORMATION MECHANISM

N BISAI, SANTANU BANERJEE, S. J. ZWEBEN and A. SEN  
IPR/RR-1296/2021 JUNE 2021

EFFECT OF PLASMA ACTIVATED WATER ON GERMINATION AND PLANT GROWTH OF DRIED WHITE PEA (PISUM SATIVUM L.) SEEDS

VIKAS RATHORE, BUDHI SAGAR TIWARI and SUDHIR KUMARNEMA  
IPR/RR-1297/2021 JUNE 2021

POWER EXTRACTION FROM COMPACT TOKAMAK FUSION TEST REACTORS

PIYUSH PRAJAPATI and SHISHIR DESHPANDE  
IPR/RR-1298/2021 JUNE 2021

KELVIN-HELMHOLTZ INSTABILITY OF A ROTATING STRONGLY COUPLED DUSTY PLASMA AND TRACER TRANSPORT

VIKRAM DHARODI and BHAVESH PATEL  
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NUMERICAL SIMULATION OF DIESEL COMBUSTION PASSING THROUGH HIGH POWER ARC REGION IN A PLASMA FUEL SYSTEM

SUNIL BASSI, S. K. NEMA, A. SANGHARIYAT, C. PATIL, P. V. MURUGAN and SHASHANK CHATURVEDI  
IPR/RR-1300/2021 JULY 2021

PERFORMANCE TESTING OF PERMEATION BASED HYDROGEN ISOTOPE SENSOR IN HYDROGEN GAS

RUDREKSH B. PATEL, SUDHIR RAI, PRAGNESH B. DHORAJIYA, P. A. RAYJADA and AMIT SIRCAR  
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DEVELOPMENT OF A NOVEL SPIRAL ANTENNA SYSTEM FOR LOW LOOP VOLTAGE CURRENT START UP AT STEADY STATE SUPERCONDUCTING TOKAMAK (SST-1)

DEBJYOTI BASU, DANIEL RAJU, RAJ SINGH, APARAJITA MUKHERJEE, MANOJ PATEL, DHARMENDRA RATHI, R. G. TRIVEDI, KIRIT VASAVA, K. A. JADEJA, SNEHA P. JAYASWAL, VIJAYKUMAR N. PATEL, S. K. PATNAIK, PARESH VASAVA, AJESH SUBBARAO, BHAVESH KADIA, KIRIT PARMAR, SIJU GEORGE, YUVAKIRAN PARAVASTU, KALPESH R. DHANANI, CHIRAG BHAVSAR, SUDHIR SHARMA, M. V. GOPALAKRISHNA, MAINAK BANDYOPADHYAY, MINSHA SHAH, PRAMILA GAUTAM, HIREN D. NIMAVAT, PRASHANT L. THANKEY, ZIAUDDIN KHAN and DILIP RAVAL  
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ANALYTICAL AND NUMERICAL STUDY OF LEAKY MODE CHARACTERISTICS OF DNG METAMATERIAL-BASED COAXIAL WAVEGUIDE FROM GHZ TO THZ FREQUENCY RANGE  
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PAWANDEEP SINGH, SWATI and SHANTANU KARKARI  
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PHYSICS STUDIES OF ADITYA & ADITYA-U TOKAMAK PLASMAS USING SPECTROSCOPIC DIAGNOSTICS  
R. MANCHANDA, M. B. CHOWDHURI, J. GHOSH, N. RAMAIYA, N. YADAVA, S.PATEL, G. SHUKLA, K. SHAH, R. DEY, K. A. JADEJA, K. M. PATEL, R. L. TANNA, S. K. PATHAK, B. V. NAIR, C. N. GUPTA and ADITYA-U TEAM  
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(SOLITARY) ELECTRON AND ION HOLE EXCITATION IN CURRENT-DRIVEN PLASMAS -A STATUS REPORT WITH NEW PERSPECTIVES PART 2 -SIMULATIONS  
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IPR/RR-1306/2021 JULY 2021

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UNAMBIGUOUS STABILITY OF ULTRA SLOW ELECTRON HOLES AND THEIR CHARACTERISTICS IN THE NOVEL STABILITY REGIME  
D. MANDAL and D. SHARMA  
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INVESTIGATION OF ROLE OF PLASMA FORMING GASES ON CHEMICAL SPECIES FORMED AND THEIR EFFECT ON PROPERTIES OF PLASMA ACTIVATED WATER  
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ESTIMATION OF STORED ENERGY FOR TWIN SOURCE HVDC TRANSMISSION LINE  
M.N. VISHNUDEV, DEEPAK PARMAR, HARDIK SHISHANGIYA, SANTOSH C. VORA, AGRAJIT GAHLAUT, MAINAK BANDYOPADHYAY and ARUN CHAKRABORTY  
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MEASUREMENT OF EFFECTIVE THERMAL CONDUCTIVITY OF LITHIUM METATITANATE PEBBLE BEDS BY STEADY-STATE RADIAL HEAT FLOW METHOD  
MAULIK PANCHAL, VRUSHABH LAMBADE, VIMAL KANPARIYA, HARSH PATEL and PARITOSH CHAUDHURI  
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TEMPERATURE-INDUCED TRANSITION OF TRIANGULAR FEATURES TO CORRUGATED PATTERNS ON ION BOMBARDED SI (100) SURFACES  
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EVOLUTION OF RADIATION BURST FROM A MULTI-PEAK SOLITON IN THE LASER-PLASMA SYSTEM

DEEPA VERMA, RATAN KUMAR BERA, BHAVESH G. PATEL and AMITA DAS  
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DESIGN AND SIMULATION OF A POLARIZATION-INDEPENDENT SWITCHABLE METASURFACE RASORBER/ABSORBER

PRIYANKA TIWARI and S. K. PATHAK  
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DESIGN AND SIMULATION OF A WATER BASED POLARIZATION-INSENSITIVE AND WIDE INCIDENCE DIELECTRIC METASURFACE ABSORBER FOR X-, KU- AND K-BAND

PRIYANKA TIWARI and S. K. PATHAK  
IPR/RR-1315/2021 JULY 2021

NUMERICAL PREDICTION OF THE OPERATING POINT FOR THE CRYOGENIC TWIN-SCREW HYDROGEN EXTRUDER SYSTEM

SHASHI KANT VERMA, VISHAL GUPTA, SAMIRAN SHANTI MUKHERJEE, RANJANA GANGRADEY, R. SRINIVASAN, SENTHIL KUMAR ARUMUGAM and PRASHANTH S. RAVI KUMAR  
IPR/RR-1316/2021 AUGUST 2021

CFD ANALYSIS OF PLASMA PROCESS CHAMBER OF 25 TPD PLASMA GASIFICATION SYSTEM  
HARDIK GIRISHBHAI MISTRY, ATIK MISTRY, DEEPAK SHARMA, P.V. MURUGAN, V. JAIN, P. CHAUDHURI, SHASHANK CHATURVEDI and S. K. NEMA

IPR/RR-1317/2021 AUGUST 2021

SIMULTANEOUS CLOSE TO EXACT ESTIMATION OF MANY THERMODYNAMIC PARAMETERS OF 2D YUKAWA FLUIDS

ANKIT DHAKA and PINTU BANDYOPADHYAY  
IPR/RR-1318/2021 AUGUST 2021

NUMERICAL STUDY ON THE EFFECT OF PLASMA DENSITY ON RUNAWAY ELECTRON SUPPRESSION IN THE ADITYA-U TOKAMAK

ANSH PATEL, SANTOSH P. PANDYA, TANMAY M. MACWAN, UMESHKUMAR C. NAGORA, JAYESH V. RAVAL, K. A. JADEJA, SAMEER KUMAR JHA, ROHIT KUMAR, SUMAN AICH, SUMAN DOLUI, KAUSHLENDER SINGH, K. M. PATEL, KUMUDNI TAHILIANI, SURYA KUMAR PATHAK, RAKESH L. TANNA, JOYDEEP GHOSH, MANOJ KUMAR and ADITYA-U TEAM  
IPR/RR-1319/2021 AUGUST 2021

SPUTTERING YIELD AND NANORIPPLE FORMATION STUDY OF BNSiO<sub>2</sub> AT ELEVATED TEMPERATURE RELEVANCE TO HALL EFFECT THRUSTER

BASANTA KUMAR PARIDA, SOORAJ K. P., SUKRITI HANS, VIVEK PACHCHIGAR, SEBIN AUGUSTINE, REMYAMOL T., M. R. AJITH and MUKESH RANJAN  
IPR/RR-1320/2021 AUGUST 2021

SONIC VELOCITY MEASUREMENT IN MOLTEN PB-LI(16) AT HIGH TEMPERATURE

S. SAHU, K. BHOPE, A. PRAJAPATI, M. MEHTA, H. TAILOR, R. BHATTACHARYAY and S. S. KHIRWADKAR  
IPR/RR-1321/2021 AUGUST 2021

EMERGENT DYNAMICS OF A CELLULAR AUTOMATA MODEL FOR EXCITABLE MEDIA

PROMIT MOITRA and ABHIJIT SEN  
IPR/RR-1322/2021 AUGUST 2021

ACTIVATION OF WATER IN THE DOWNSTREAM OF LOW-PRESSURE AMMONIA PLASMA DISCHARGE

VIKAS RATHORE, VYOM DESAI, NIRAV I. JAMNAPARA and SUDHIR KUMAR NEMA  
IPR/RR-1323/2021 AUGUST 2021

SIMULATION STUDY OF LUNEBURG LENS ON K-BAND HORN ANTENNA FOR FMCW REFLECTOMETRY APPLICATIONS

ROHIT MATHUR, J.J.U. BUCH and SURYA K. PATHAK  
IPR/RR-1324/2021 SEPTEMBER 2021

NEUTRONIC ANALYSIS OF INDIAN HELIUM COOLED SOLID BREEDER TRITIUM BREEDING MODULE FOR TESTING IN ITER

H. L. SWAMI, DEEPAK SHARMA, C. DANANI, P. CHAUDHARI, R. SRINIVASAN and RAJESH KUMAR  
IPR/RR-1325/2021 SEPTEMBER 2021

LITHIUM WALL CONDITIONING TECHNIQUES IN ADITYA-U TOKAMAK FOR IMPURITY AND FUEL CONTROL

K. A. JADEJA, J. GHOSH, NANDINI YADAVA, K. M. PATEL, KIRAN PATEL, R. L. TANNA, R. MANCHANDA, M. B. CHOWDHURI, J. V. RAVAL, U. C. NAGORA, B. G. ARAMBHADIYA, TANMAY MACWAN, K. SINGH, S. DOLUI, MINSHA SHAH, SHARVIL PATEL, N. RAMAIYA, KAJAL SHAH, B. K. SHUKLA, SUMAN AICH, ROHIT KUMAR, V. K. PANCHAL, MANOJ KUMAR, P. K. ATREY, S. K. PATHAK, RACHANA RAJPAL, KUMUDNI ASSUDANI, GOPALAKRISHNA M. V., DEVILAL KUMAWAT, M. N. MAKWANA, K. S. SHAH, SHIVAM GUPTA, C. N. GUPTA, V. BALAKRISHNAN, P. K. CHATTOPADHYAY and B. R. KATARIA  
IPR/RR-1326/2021 SEPTEMBER 2021

LASER TEXTURING OF CRYSTALLINE SILICON: EXPLORING ITS SUPERHYDROPHILIC NATURE

RUDRASHISH PANDA, JINTO THOMAS and HEM CHANDRA JOSHI  
IPR/RR-1327/2021 SEPTEMBER 2021

IMPURITY SEEDING IN A TOKAMAK PLASMA AND COMPARISON WITH EXPERIMENTS

SHRISH RAJ, N. BISAI, VIJAY SHANKAR, A. SEN, JOYDEEP GHOSH, R. L. TANNA, MALAY B. CHOWDHURI, K. A. JADEJA, KUMUDNI ASSUDANI, TANMAY MARTIN MACWAN, SUMAN AICH and KAUSHLENDER SINGH

IPR/RR-1328/2021 SEPTEMBER 2021

ASSEMBLY, TESTING, OPERATION AND PERFORMANCE VALIDATION OF THE CRYOSTAT INTEGRATED WITH 80 K THERMAL SHIELDS FOR THE MAGNET TEST FACILITY

MAHESH GHATE, ARVIND TOMAR, DEVEN KANABAR, DHAVAL BHAVSAR, PIYUSH RAJ, HEMANG AGRAVAT, FIROZKHAN PATHAN, MAILA PARMESH, UMESH PAL, BHADRESH PARGHI, NAYAN SOLANKI, ARUN PANCHAL, ANEES BANO, ROHIT PANCHAL, PANKAJ VARMORA, YOGENDRA SINGH, GATTU RAMESH, ARUN PRAKASH, MONI BANAUDHA, NITISH KUMAR, KETAN PATEL, PRASHANT THANKEY, KALPESH DHANANI, CHIRAG DODIYA, AZAD MAKWANA, BHARAT DOSHI, ANANTA KUMAR SAHU, UPENDRA PRASAD, VIPUL TANNA and R. SRINIVASAN  
IPR/RR-1329/2021 SEPTEMBER 2021

INFLUENCE OF PARTICLE DIAMETER AND DENSITY ON THE TRAP EFFICIENCY OF ACOUSTIC FIELD

K. SATYA PRAKASH REDDY and C. BALASUBRAMANIAN  
IPR/RR-1330/2021 OCTOBER 2021

ADDRESSING THE ANOMALIES IN DETERMINING NEGATIVE ION PARAMETERS USING ELECTROSTATIC PROBES

PAWANDEEP SINGH and SHANTANU KARKARI  
IPR/RR-1331/2021 OCTOBER 2021

EFFECT OF QUANTIZATION NOISE ON THE ACCURACY OF LANGMUIR PROBE MEASUREMENTS USING DSO

CHIRAG SENJALIYA, PAWANDEEP SINGH and SANTANU KUMAR KARKARI  
IPR/RR-1332/2021      OCTOBER 2021

OVERVIEW OF RECENT EXPERIMENTAL RESULTS FROM THE ADITYA-U TOKAMAK

R. L. TANNA, TANMAY MACWAN, J. GHOSH, K. A. JADEJA, ROHIT KUMAR, S. AICH, K. M. PATEL, HARSHITA RAJ, KAUSHLENDER SINGH, SUMAN DOLUI, ANKIT KUMAR, B. K. SHUKLA, P. K. CHATTOPADHYAY, M. N. MAKWANA, K. S. SHAH, S. GUPTA, V. BALAKRISHNAN, C. N. GUPTA, V. K. PANCHAL, PRAVEENLAL EDAPPALA, B. ARAMBHADIYA, MINSHA SHAH, PRAMILA GAUTAM, V. RAULJI, PRAVEENA SHUKLA, R. RAJPAL, U. C. NAGORA, KIRAN PATEL, NANDINI YADAVA, S. PATEL, N. RAMAIYA, M. B. CHOWDHURI, R. MANCHANDA, R. DEY, G. SHUKLA, K. SHAH, VARSHA S., J. RAVAL, S. PUROHIT, K. TAHILIANI, D. KUMAWAT, S. K. JHA, N. BISAI, P. K. ATREY, S. K. PATHAK, M. K. GUPTA, M. V. GOPALKRISHANA, B. R. DOSHI, DEEPTI SHARMA, R. SRINIVASAN, D. RAJU, CHETNA CHAUHAN, Y. C. SAXENA, ABHIJIT SEN, R. PAL and S. CHATURVEDI  
IPR/RR-1333/2021      OCTOBER 2021

A COMPARATIVE STUDY OF DIELECTRIC BARRIER DISCHARGE PLASMA DEVICE AND PLASMA JET TO GENERATE PLASMA ACTIVATED WATER AND POST-DISCHARGE TRAPPING OF REACTIVE SPECIES

VIKAS RATHORE and SUDHIR KUMAR NEMA  
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CONCEPTUAL DESIGN OF MULTICHANNEL FAST ELECTRON BREMSSTRAHLUNG DETECTION SYSTEM TO STUDY FAST ELECTRON DYNAMICS DURING LOWER HYBRID CURRENT DRIVE IN ADITYA-U TOKAMAK

JAGABANDHU KUMAR, SANTOSH P. PANDYA and P. K. SHARMA  
IPR/RR-1335/2021      OCTOBER 2021

SELF-SUSTAINED NON-EQUILIBRIUM COEXISTENCE OF FLUID AND SOLID STATES IN A STRONGLY COUPLED SYSTEM OF MICROPARTICLES IN A PLASMA DISCHARGE

M. G. HARIPRASAD, P. BANDYOPADHYAY, SARAVANAN ARUMUGAM, G. ARORA, SWARNIMA SINGH, A. SEN, D. A. KOLOTINSKII, V. S. NIKOLAEV and A. V. TIMOFEEV  
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SIMULATIONS OF EDGE PLASMA PARAMETERS OF ADITYA-U TOKAMAK USING UEDGE CODE  
RITU DEY, TANMAY M. MACWAN, HARSHITA RAJ, M. B. CHOWDHURI, JOYDEEP GHOSH, R. L. TANNA, R. MANCHANDA, DEEPTI SHARMA and T. D. ROGNLIEN

IPR/RR-1337/2021      NOVEMBER 2021

OVERVIEW OF DIAGNOSTICS ON A SMALL-SCALE RF SOURCE FOR FUSION (ROBIN) AND THE ONE PLANNED FOR THE DIAGNOSTIC BEAM FOR ITER

M. BANDYOPADHYAY, M. J. SINGH, K. PANDYA, M. BHUYAN, H. TYAGI, P. BHARATHI and A. K. CHAKRABORTY

IPR/RR-1338/2021      NOVEMBER 2021

ESTIMATION OF VACUUM VESSEL TIME-CONSTANT IN ADITYA-U TOKAMAK

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

IPR/RR-1339/2021      NOVEMBER 2021

DATA DRIVEN DISCOVERY OF A MODEL EQUATION FOR ANODE-GLOW OSCILLATIONS IN A LOW PRESSURE PLASMA DISCHARGE

BHUMIKA THAKUR, ABHIJIT SEN and NEERAJ CHAUBEY

IPR/RR-1340/2021      NOVEMBER 2021



RECONSTRUCTION OF RUNAWAY ELECTRON ENERGY DISTRIBUTION FUNCTION IN TOKAMAK DISCHARGES USING HARD X-RAY SPECTROMETRY

ANSH PATEL, SANTOSH P. PANDYA, ALEXANDER E. SHEVELEV, E. M. KHILKEVITCH and MARGARITA ILIASOVA

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TERAHERTZ RADIATION GENERATION FROM A SOLITON CAVITY IN A LASER-PLASMA SYSTEM

DEEPA VERMA, SUDIP SENGUPTA and ABHIJIT SEN

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PLASMA ASYMMETRY, ELECTRON AND ION ENERGY DISTRIBUTION FUNCTION IN CAPACITIVE DISCHARGES EXCITED BY TAILORED WAVEFORMS

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

IPR/RR-1343/2021      NOVEMBER 2021

ANALYSIS OF ELECTRIC FIELD STRESS OF 145 kV OIP BUSHING UNDER AC & DC VOLTAGES

ARITRA CHAKRABORTY, AMAL S., SAURABH KUMAR, PAUL D. CHRISTIAN, ANANYA KUNDU and ASHOK MANKANI

IPR/RR-1344/2021      NOVEMBER 2021

AB-INITIO SELECTION OF TRANSITION METAL SPECIES FOR INCORPORATION IN ZSM-5 ZEOLITE FRAMEWORK TO IMPROVE DIHYDROGEN BINDING FOR NUCLEAR FUSION APPLICATIONS

V. GAYATHRI DEVI, ARAVAMUDAN KANNAN and AMIT SIRCAR

IPR/RR-1345/2021      DECEMBER 2021

CROSS-SECTION OF (n,2n) REACTION FOR NIOBIUM AND STRONTIUM ISOTOPES BETWEEN 13.97 TO 20.02 MeV NEUTRON ENERGIES

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

IPR/RR-1346/2021      DECEMBER 2021

LOCALIZED ABSORPTION OF LASER ENERGY IN X-MODE CONFIGURATION OF INHOMOGENOUS MAGNETIZED PLASMA

AYUSHI VASHISTHA, DEVSHREE MANDAL, SRIMANTA MAITY and AMITA DAS

IPR/RR-1347/2021      DECEMBER 2021

SOURCE CONDITIONING FOR SURFACE ASSISTED NEGATIVE IONS PRODUCTION AND PUMPING EFFECT ON H-ION BEAM IN ROBIN

KAUSHAL PANDYA, MANAS BHUYAN, M. J. SINGH, MAINAK BANDYOPADHYAY, KARTIK PATEL, HIMANSHU TYAGI and ARUN CHAKRABORTY

IPR/RR-1348/2021      DECEMBER 2021

DEVELOPMENT OF FAST STEERABLE LAUNCHER FOR ECRH SYSTEM

H. MISTRY, D. PUROHIT, H. PATEL, J. PATEL, K. PARMAR, D. RAVAL, M. K. GUPTA and B. K. SHUKLA

IPR/RR-1349/2021      DECEMBER 2021

PRELIMINARY DESIGN AND ANALYSIS OF 20K HELIUM COOLED MgB<sub>2</sub> BASED SUPERCONDUCTING CURRENT FEEDER SYSTEM FOR TOKAMAK APPLICATION

NITIN BAIRAGI, V. L. TANNA and D. RAJU

IPR/RR-1350/2021      DECEMBER 2021

FABRICATION AND CHARACTERIZATION OF BSCCO-2223 TAPE BASED COMPACT COILS

U. PRASAD, P. RAJ, A. BANO, A. PANCHAL, D. KANABAR and R. SRINIVASAN

IPR/RR-1351/2021      DECEMBER 2021

OXYGEN PLASMA FOR PREVENTION OF BIOFILM FORMATION ON SILICONE CATHETER SURFACES: INFLUENCE OF PLASMA EXPOSURE TIME  
PURVI DAVE, BALASUBRAMANIAN C, SUKRITI HANS and S. K. NEMA  
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EXPERIMENTAL VERIFICATION OF CAVITY MODES IN A MICROWAVE ION SOURCE AND ITS INFLUENCE ON THE PLASMA DYNAMICS AND THE EXTRACTED ION BEAM  
C. MALLICK, M. BANDYOPADHYAY and R. KUMAR  
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QUASI-LONGITUDINAL PROPAGATION OF NONLINEAR WHISTLERS WITH STEEP ELECTROSTATIC FLUCTUATIONS  
GAYATRI BARSAGADE and D. SHARMA  
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A. K. PANDEY, R. R. HIRANI and S. K. PATHAK  
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BENCHMARKING OF LIGO-INDIA OUTGASSING MEASUREMENT FACILITY  
S. SUNIL and VIJAY BEDAKIHALE  
IPR/RR-1356/2021      DECEMBER 2021

COMPARATIVE STUDY OF LIBS SIGNAL FOR SINGLE AND COLLIDING PLASMA PLUMES IN A VARIABLE MAGNETIC FIELD  
PRAVIN KUMAR TIWARI, NARAYAN BEHERA, R. K. SINGH and H. C. JOSHI  
IPR/RR-1357/2021      DECEMBER 2021

EFFECT OF RADIATION-REACTION ON CHARGED PARTICLE DYNAMICS IN A FOCUSED ELECTROMAGNETIC WAVE  
SHIVAM KUMAR MISHRA, SARVESHWAR SHARMA and SUDIP SENGUPTA  
IPR/RR-1358/2021      DECEMBER 2021

EQUILIBRIUM MAGNETIC FIELD REQUIREMENTS DURING PLASMA INITIATION AND CURRENT RAMP-UP PHASE IN ADITYA/ADITYA-U TOKAMAK DISCHARGES  
R. L. TANNA, J. GHOSH, C. N. GUPTA, V. BALAKRISHNAN, SHIVAM GUPTA, M. N. MAKWANA, KUNAL SHAH, SUPRIYA NAIR, ROHIT KUMAR, SUMAN AICH, K. A. JADEJA, K. M. PATEL, TANMAY MACWAN, KAUSHLINDER SINGH, SUMAN DOLUI, ANKIT KUMAR, CHETNA CHAUHAN, R. P. BHATTACHARYAY, P. K. CHATTOPADHYAY, M. B. CHOWDHURI, R. MANCHANDA, Y. C. SAXENA and THE ADITYA-U TEAM  
IPR/RR-1359/2021      DECEMBER 2021

SYNTHESIS AND CHARACTERIZATION OF MIXED-PHASE  $Sr_2CeO_4-SrCe_{0.85}Y_{0.15}O_{3-\delta}$  BY SOLID-STATE REACTION METHOD: A POTENTIAL PROTON CONDUCTING ELECTROLYTE  
AROH SHRIVASTAVA, DEEPAK YADAV, PARITOSH CHAUDHURI and AMIT SIRCAR  
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ESTIMATION OF VESSEL EDDIES USING MAGNETIC PROBES IN ADITYA-U TOKAMAK  
S. AICH, J. GHOSH, T. M. MACWAN, R. KUMAR, R. L. TANNA, D. RAJU, S. JHA, P. K. CHATTOPADHYAY, PRAVEENLAL E. V., K. A. JADEJA, K. PATEL, K. SINGH, S. DOLUI AND ADITYA-U TEAM  
IPR/RR-1361/2021      DECEMBER 2021

CONCEPTUAL DESIGN AND ANALYSIS OF PROTOTYPE CENTER STACK FOR SPHERICAL TOKAMAK BASED TECHNOLOGIES DEVELOPMENT

A. K. VERMA, S. RANJITHKUMAR, PRASADA RAO P., SHIJU SAM, Y. S. S. SRINIVAS and E. RAJENDRA KUMAR

IPR/RR-1362/2021      DECEMBER 2021

ON THE DELAYED EMISSION FROM LASER PRODUCED ALUMINUM PLASMA UNDER ARGON ENVIRONMENT

GARIMA ARORA, JINTO THOMAS and HEM CHANDRA JOSHI

IPR/RR-1363/2022      JANUARY 2022

EFFECT OF HIGH POWER MICROWAVE ON THE SEED GERMINATION

BRAJ KISHORE SHUKLA, ASHISH KUMAR SHARMA, VAIBHAVKUMAR KANUBHAI CHAUDHARI, JATIN PATEL, HARSHIDA PATEL, DHARMESH PUROHIT, MAHESH KUSHWAH, K. G. PARMAR, HARDIK MISTRY, P. K. ATREY and RAJAN BABU

IPR/RR-1364/2022      JANUARY 2022

INVESTIGATION OF SUBSONIC TO SUPERSONIC TRANSITION OF A LOW-PRESSURE PLASMA TORCH JET

RAM KRUSHNA MOHANTA and G. RAVI

IPR/RR-1365/2022      JANUARY 2022

ANISOTROPIC ELECTRON TEMPERATURE EFFECT ON RADIAL POTENTIAL AND DENSITY DISTRIBUTION IN A PARTIALLY MAGNETIZED PLASMA

SWATI, PAWANDEEP SINGH and SHANTANU KUMAR KARKARI

IPR/RR-1366/2022      JANUARY 2022

DESIGN AND DEVELOPMENT OF DIELECTRIC BARRIER DISCHARGE SETUP TO FORM PLASMA ACTIVATED WATER AND OPTIMIZATION OF PROCESS PARAMETERS

VIKAS RATHORE, CHIRAYU PATIL, ADAM SANGHARIYAT and SUDHIR KUMAR NEMA

IPR/RR-1367/2022      JANUARY 2022

IMPURITY BEHAVIOR IN HIGH PERFORMANCE ADITYA TOKAMAK PLASMAS

MALAY B. CHOWDHURI, RANJANA MANCHANDA, JOYDEEP GHOSH, NANDINI YADAVA, SHARVIL PATEL, NILAM RAMAIYA, ANAND K. SRIVASTAVA, KUMUDNI TAHILIANI, MEDURI V. GOPALAKRISHNA, UMESH C. NAGORA, PRAVEEN K. ATREY, SURYA K. PATHAK, SHISHIR PUROHIT, JOISA SHANKARA, KUMARPALSINH A. JADEJA, RAKESH L. TANNA, CHET N. GUPTA, PRABAL K. CHATTOPADHYAY and ADITYA TEAM

IPR/RR-1368/2022      JANUARY 2022

VIBRATIONAL TEMPERATURE ESTIMATION OF NITROGEN MOLECULES IN RADIO-FREQUENCY (RF) PRODUCED PLASMA

NANDINI YADAVA, SACHIN SINGH CHOUHAN, A. SANYASI, UTTAM SHARMA, JAYASHREE SHARMA, M. B. CHOWDHURI and J. GHOSH

IPR/RR-1369/2022      JANUARY 2022

LASER CLUSTER INTERACTION IN AMBIENT MAGNETIC FIELD: ACCELERATING ELECTRONS IN TWO STAGES

KALYANI SWAIN, S. S. MAHALIK and M. KUNDU

IPR/RR-1370/2022      JANUARY 2022

OPTIMIZATION AND SIMULATION OF HELIX LOADED WITH DIELECTRIC DISPERSION CHARACTERISTICS USING TLBO ALGORITHM

AJAY K. PANDEY, RASILLA R. HIRANI and SURYA K. PATHAK

IPR/RR-1371/2022      JANUARY 2022

EFFECT OF INTERPARTICLE INTERACTION ON MOTILITY INDUCED PHASE SEPARATION OF SELF-PROPELLED INERTIAL DISKS

SOUMEN DE KARMAKAR and RAJARAMAN GANESH

IPR/RR-1372/2022 JANUARY 2022

STUDY ON THE MICROWAVE DISINFECTION OF FOOD GRAINS USING 42 GHz GYROTRON SOURCE

BRAJ KISHORE SHUKLA, ASHISH KUMAR SHARMA, VAIBHAVKUMAR KANUBHAI CHAUDHARI, JATIN PATEL, HARSHIDA PATEL, DHARMESH PUROHIT, MAHESH KUSHWAH, K. G. PARMAR, HARDIK MISTRY, P. K. ATREY and RAJAN BABU

IPR/RR-1373/2022 JANUARY 2022

DROPLET MOTION ON WETTABILITY GRADIENT SURFACE

VISHAKHA BAGHEL and MUKESH RANJAN

IPR/RR-1374/2022 JANUARY 2022

DETERMINATION OF EDDY-CURRENT DISTRIBUTION IN ELECTRICALLY ISOLATED VESSEL SECTIONS OF ADITYA-U TOKAMAK

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

IPR/RR-1375/2022 JANUARY 2022

ROLE OF MAGNETOHYDRODYNAMIC ACTIVITY ON SAWTOOTH INDUCED HEAT PULSE PROPAGATION IN ADITYA TOKAMAK

S. PATEL, J. GHOSH, M. B. CHOWDHURI, K. B. K. MAYYA, R. MANCHANDA, H. K. PANDYA, R. L. TANNA, V. KUMAR, S. JOISA, S. PUROHIT, D. RAJU, S. JHA, P. K. ATREY, C. V. S. RAO, P. VASU, D. CHENNA REDDY, S. B. BHATT, Y. C. SAXENA and ADITYA TEAM

IPR/RR-1376/2022 JANUARY 2022

ANALYSIS OF EFFECTIVE THERMAL CONDUCTIVITY OF PEBBLE BED BY ARTIFICIAL NEURAL NETWORK AND ITS COMPUTATIONAL AND EXPERIMENTAL VERIFICATION

CHIRAG SEDANI, MAULIK PANCHAL, VIPUL TANNA, PARITOSH CHAUDHURI and MANOJ KUMAR GUPTA

IPR/RR-1377/2022 JANUARY 2022

EDGE BIASING AND ITS IMPACT ON THE EDGE AND SOL TURBULENCE

VIJAY SHANKAR, N. BISAI, SHRISH RAJ and A. SEN

IPR/RR-1378/2022 FEBRUARY 2022

DYNAMICS OF FAST IONS PRODUCED FROM LASER PRODUCED ALUMINUM PLASMA

GARIMA ARORA, JINTO THOMAS and HEM CHANDRA JOSHI

IPR/RR-1379/2022 FEBRUARY 2022

PHYSICS DESIGN OF HIGH YIELD 14 MeV NEUTRON GENERATOR

H. L. SWAMI, S. VALA, M. RAJPUT, M. ABHANGI, RATNESH KUMAR and RAJESH KUMAR

IPR/RR-1380/2022 FEBRUARY 2022

COMBINED EFFECT OF TEMPERATURE AND IMPURITY ON WETTABILITY OF Ar PLASMA TREATED PTFE SURFACE

VIVEK PACHCHIGAR, UMESH KUMAR GAUR, AMRUTHA T. V., SOORAJ K. P., SUKRITI HANS, SANJEEV KUMAR SRIVASTAVA and MUKESH RANJAN

IPR/RR-1381/2022 FEBRUARY 2022

LONG TIME FATE OF 2D INCOMPRESSIBLE HIGH REYNOLDS NUMBER NAVIER-STOKES  
TURBULENCE: A RELOOK

SHISHIR BISWAS and RAJARAMAN GANESH  
IPR/RR-1382/2022 FEBRUARY 2022

SIMULATION OF SILICON ETCHING IN  $\text{NF}_3$  PLASMA REACTOR

H. L. SWAMI, V. MEHTA, YOGENDRA KUMAR, CHETAN JARIWALA and RAJESH KUMAR  
IPR/RR-1383/2022 FEBRUARY 2022

RADIATION ANALYSIS AND DESIGN STUDY OF COOLING AND BAKING SCHEME FOR SMARTEX-  
C

RITESH KUMAR SRIVASTAVA, MANOJ KUMAR GUPTA, LAVKESH T. LACHHVANI, MANU BAJPAI,  
YOGESH YEOLE, BHARAT R. DOSHI and PRABAL K. CHATTOPADHYAY

IPR/RR-1384/2022 FEBRUARY 2022

SQUARE LATTICE FORMATION IN A MONO-DISPERSIVE COMPLEX PLASMA

SWARNIMA SINGH, P. BANDYOPADHYAY, KRISHAN KUMAR and A. SEN

IPR/RR-1385/2022 FEBRUARY 2022

THE QUASI-LOCALIZED CHARGE APPROXIMATION (QLCA) APPROACH FOR THE NONLINEAR  
STRUCTURES IN STRONGLY COUPLED YUKAWA SYSTEMS

PRINCE KUMAR and DEVENDRA SHARMA

IPR/RR-1386/2022 MARCH 2022

SENSING A CHANGE IN SIZE OF A CIRCULAR TOKAMAK PLASMA USING A SINGLE MAGNETIC  
PROBE: A PRAGMATIC APPROACH

SUMAN AICH, JAHAN THAKKAR and JOYDEEP GHOSH

IPR/RR-1387/2022 MARCH 2022

DYNAMICS OF NANOSCALE TRIANGULAR FEATURES ON GE SURFACES PRODUCED BY LOW  
ENERGY XE ION IRRADIATION

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

IPR/RR-1388/2022 MARCH 2022

ABSOLUTE DENSITY AND DIVERGENCE OF FREE HELIUM JET FROM A PARABOLIC NOZZLE  
PROFILE BASED ON VIRTUAL SOURCE CONCEPT OF FREE EXPANSION

M. PATEL, J. THOMAS and H. C. JOSHI

IPR/RR-1389/2022 MARCH 2022

A CRITERION TO AID DIRECT TRACKING OF PLASMA BLOBS IN A TOKAMAK

N. BISAI and A. SEN

IPR/RR-1390/2022 MARCH 2022

MICROSCOPIC STRUCTURE OF ELECTROMAGNETIC WHISTLER WAVE DAMPING BY KINETIC  
MECHANISMS IN HOT MAGNETIZED VLASOV PLASMAS

ANJAN PAUL and DEVENDRA SHARMA

IPR/RR-1391/2022 MARCH 2022

SITAR: A CODE FOR ICRH ANTENNA-PLASMA COUPLING

ASIM KUMAR CHATTOPADHYAY

IPR/RR-1392/2022 MARCH 2022

ECRH TWO-PULSE (BREAKDOWN AND HEATING) EXPERIMENTS ON TOKAMAKS ADITYA-U AND SST-1

BRAJ KISHORE SHUKLA, JOYDEEP GHOSH, D. RAJU, R. L. TANNA, VIPUL TANNA, UPENDRA PRASAD, JATIN PATEL, HARSHIDA PATEL, DHARMESH PUROHIT, MAHESH KUSHWAH, S. K. PATHAK, P. K. ATREY, HARDIK MISTRY, K. G. PARMAR, MANOJ GUPTA, RANJANA MANCHANDA, KIRTI MAHAJAN, AVEG CHAUHAN, D. RAVAL, ROHIT KUMAR, SUMAN AICH, K. A. JADEJA, K. M. PATEL, HARSHITA RAJ, TANMAY MACWAN, V. BALAKRISHNAN, SHIVAM GUPTA, M. N. MAKWANA, K. S. SHAH, C. N. GUPTA, M. B. CHOWDHURI, UMESH NAGORA, VARSHA SIJU, JAYESH RAVAL, K. TAHILIANI, PRAMILA GAUTAM, PRAVEENLAL E. V., P. K. CHATTOPADHYAY, SST-1 TEAM and ADITYA-U TEAM

IPR/RR-1393/2022 MARCH 2022

SIGNATURES OF AN ENERGETIC CHARGE BUNCH MOVING IN A PLASMA

VIKRAM DHARODI, ATUL KUMAR and ABHIJIT SEN

IPR/RR-1394/2022 MARCH 2022

LARGE AREA MULTI-FILAMENTARY PLASMA SOURCE FOR LARGE VOLUME PLASMA DEVICE-UPGRADE

A. K. SANYASI, P. K. SRIVASTAVA, AYAN ADHIKARI, L. M. AWASTHI, P. LEUVA, P. SANTRA, B. DOSHI, M. K. GUPTA and R. SUGANDHI

IPR/RR-1395/2022 MARCH 2022

A NEW DEVICE FOR THE MEASUREMENT OF FARADAY EFFECT IN OPTICAL FIBERS

ASHA ADHIYA, MINSHA SHAH, ANKUR PANDYA and RAJWINDER KAUR

IPR/RR-1396/2022 MARCH 2022

ELECTROMAGNETIC PINNED SOLITONS FOR SPACE DEBRIS DETECTION

ABHIJIT SEN, RUPAK MUKHERJEE, SHARAD K. YADAV, CHRIS CRABTREE and GURUDAS GANGULI

IPR/RR-1397/2022 MARCH 2022

STUDY OF MAGNETIZED MULTI-COMPONENT PLASMA SHEATH CONTAINING CHARGED DUST PARTICLE IN PRESENCE OF OBLIQUE MAGNETIC FIELD: A FLUID APPROACH

A. K. SHAW, A. K. SANYASI and S. KAR

IPR/RR-1398/2022 MARCH 2022

AU/AG SERS ACTIVE SUBSTRATE FOR BROADER WAVELENGTH EXCITATION

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

IPR/RR-1399/2022 MARCH 2022

TRITIUM-TITANIUM TARGET DEGRADATION DUE TO DEUTERIUM IRRADIATION FOR DT NEUTRON PRODUCTION

M. RAJPUT, H. L. SWAMI, S. VALA, M. ABHANGI, RATNESH KUMAR and R. KUMAR

IPR/RR-1400/2022 MARCH 2022

3D THERMO-FLUID MHD ANALYSIS OF THE TEST MOCK UP WITH MULTICHANNEL FLOW CONFIGURATIONS

A. PATEL and R. BHATTACHARYAY

IPR/RR-1401/2022 MARCH 2022