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

2012-2013 Reprints (176)

1. Effect of Hydrogen Ion Beam Irradiation onto the FIR Reflectivity of Pulsed Laser Deposited Mirror like Tungsten Films
   A.T.T. MOSTAKO, ALIKA KHARE, C.V.S. RAO, PRAKASH M. RAOLE, SUDHIRSINH VALA, SHRICHAND JAKHAR, T.K. BASU, MITUL ABHANGI, RAJINIKANT J. MAKWANA
   Journal of Nuclear Materials, ***423***, *53-60, 2012*

2. Effect of Electron Accretion by Quantum Tunneling on Charging of Dust Particles in Complex Plasmas SHIKHA MISRA, S. K. MISHRA, and M. S. SODHA
   Physics of Plasmas, ***19***, *043702, 2012*

3. Nature of Energetic Ion Transport by Ion Temperature Gradient Driven Turbulence and Size Scaling
   J. CHOWDHURY, W. WANG, S. ETHIER, J MANICKAM, and R. GANESH
   Physics of Plasmas, ***19***, *042503, 2012*

4. Measurement and Processing of Fast Pulsed Discharge Current in Plasma Focus Machines
   S. LEE, S. H. SAW, R. S. RAWAT, P. LEE, R. VERMA, A. TALEBITAHER, S. M. HASSAN, A. E. ABDOU, MOHAMED ISMAIL, AMGAD MOHAMED, H. TORREBLANCA, SH. AL HAWAT, M. AKEL, P.L. CHONG, F. ROY, A. SINGH, D. WONG, K. DEVI
   Journal of Fusion Energy, ***31***, *198-204, 2012*

5. Some Characteristics of a Double Plasma Device Operated as a Triode
   M.K. MISHRA, A. PHUKAN
   Canadian Journal of Physics, ***90***, *345-349, 2012*

6. Quench Detection System for TF Coil-Test Campaigns of SST-1
   Y. KHRISTI, A.N. SHARMA, K. DOSHI, U. PRASAD, P. VARMORA, S. KEDIA, D. PATEL, S. PRADHAN
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7. Self Consistent Model for Ponderomotive Ion Acceleration of Laser Irradiated Two Species Dense Target Plasmas
   UJJWAL SINHA
   Physics of Plasmas, ***19,*** *043104, 2012*

8. Mid-Holocene Sedimentation and Landscape Evolution in the Western Great Rann of Kachchh, India
   A.K. TYAGI, A.D. SHUKLA, R. BHUSHAN, P.S. THAKKER, M.G. THAKKAR, N. JUYAL
   *Geomorphology, **151-152**, 89-98, 2012*

9. Influence of Strain Rate and Temperature on Tensile Properties and Flow Behaviour of a Reduced Activation Ferritic-Martensitic Steel
   J. VANAJA, K. LAHA, SHIJU SAM, M. NANDAGOPAL, S. PANNEER SELVI, M.D. MATHEW, T. JAYAKUMAR, E. RAJENDRA KUMAR
   Journal of Nuclear Materials, 424, 116-122, 2012

10. Free-flowing, Transparent γ-alumina Nanoparticles Synthesized by a Supersonic Thermal Plasma Expansion Process
    B. BORA, N. AOMOA, R.K. BORDOLOI, D.N. SRIVASTAVA, H. BHUYAN, A.K. DAS, M. KAKATI
    *Current Applied Physics, **12,** 880-884, 2012*

11. Scrape-Off Layer Tokamak Plasma Turbulence
    N. BISAI, R. SINGH and P. K. KAW
    *Physics of Plasmas, **19,** 052509, 2012*

12. Sliding Wear Behavior of Plasma Nitrided Austenitic Stainless Steel Type AISI 316LN in the Temperature Range From 25 to 400 °C at 10-4 Bar
    A.DEVARAJU, A. ELAYA PERUMAL, J. ALPHONSA, SATISH V. KAILAS, S. VENUGOPAL
    *Wear, **288**, 17-26, 30 2012*

13. Perturbative Analysis of Sheared Flow Kelvin-Helmholtz Instability in a Weakly Relativistic Magnetized Electron Fluid
    SITA SUNDAR, AMITA DAS, and PREDHIMAN KAW
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14. Role of Return Current in the Excitation of Electronmagnetohydrodynamic Structures by Biased Electrodes
    G. RAVI, S. K. MATTOO, L. M. AWASTHI, P. K. SRIVASTAVA and V. P. ANITHA
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15. Doubly Localized Surface Plasmon Resonance in Bimodally Distributed Silver Nanoparticles
    M. RANJAN

Journal of Nanoscience and Nanotechnology, ***12***, *4540–4545, 2012*

16. Study of Transverse and Longitudinal Bifurcation for Pattern Formations of a Plasma Column
    RAJNEESH KUMAR
    Physics Letters A: General, Atomic and Solid State Physics, ***376***, *2126-2133, 2012*

17. Different Types of Lithium Coating in Tokamak ADITYA
    S.B. BHATT, A. KUMAR, B.K. DAS, P.A. RAIJADA, M. KUMAR, K.A. JADEJA
    IEEE Transactions on Plasma Science, ***40,*** *1773-1777, 2012*

18. A Linear Helicon Plasma Device with Controllable Magnetic Field Gradient
    KSHITISH K. BARADA, P. K. CHATTOPADHYAY, J. GHOSH, SUNIL KUMAR, and Y. C. SAXENA
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19. Experimental Observation of Electron-Temperature-Gradient Turbulence in a Laboratory Plasma
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20. Investigation on Plasma Parameters and Step Ionization from Discharge Characteristics of an Atmospheric Pressure Ar Microplasma Jet
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    Physics of Plasmas, ***19***, *064503, 2012*

21. Heat Conduction and Thermal Stabilization in YBCO Tape
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    Bulletin of Material Science, ***35***, *449–451, 2012*

22. Effect of Hydraulic Impedance on the Cool Down of Superconducting Magnet System of ITER
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23. Cryogenic Engineering Design of the ITER Superconducting Magnet Feeders
    A.K. SAHU, C.Y. GUNG, K. LU, P. BAUER, A. DEVRED, Y. SONG, Y. BI, I. ILIN, F. RODRIGUEZ-MATEOS, N. DOLGETTA, N. MITCHELL
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24. Special Purpose Winding Machine for Fusion Relevant Magnets in India
    MADHU PATEL and SUBRATA PRADHAN

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25. SST-1 Toroidal Field Magnet Tests: Some Results and Lessons Learnt
    S. PRADHAN
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26. Design Approach and Analysis Results for Structure Feeders of ITER Magnets
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27. Observation of Sharply Peaked Solitons in Dusty Plasma Simulations
    SANAT KUMAR TIWARI, AMITA DAS, PREDHIMAN KAW and ABHIJIT SEN
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29. Progress of Indian Test Blanket Module Program for ITER
    E. RAJENDRA KUMAR
    *Nuclear India, **2,** 17-23, 2012*

30. Suppression of Electric and Magnetic Fluctuations and Improvement of Confinement due to Current Profile Modification by Biased Electrode in Saha Institute of Nuclear Physics Tokamak
    DEBJYOTI BASU, RABINDRANATH PAL, JOYDEEP GHOSH, and PRABAL K. CHATTOPADHYAY
    *Physics of Plasmas, **19,** 072510, 2012*

31. Quantum Effects in Electron Emission from and Accretion on Negatively Charged Spherical Particles in a Complex Plasma
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32. Kelvin-Helmholtz Instability in a Strongly Coupled Dusty Plasma Medium
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33. Numerical Modeling of Plasma Plume Evolution against Ambient Background Gas in Laser Blow Off Experiments
    BHAVESH G. PATEL, AMITA DAS, PREDHIMAN KAW, RAJESH SINGH and AJAI KUMAR
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34. Linear and Nonlinear Studies of Velocity Shear Driven Three Dimensional Electron-Magnetohydrodynamics Instability
    GURUDATT GAUR and AMITA DAS
    Physics of Plasmas, ***19,*** *072103, 2012*

35. Role of Ion Mass in the Generation of Fluctuations and Poloidal Flows in a Simple Toroidal Plasma
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36. Excitation of Characteristic Modes of a Crystal during Solid Fracture at High Tensile Pressure
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37. Residual Bernstein-Greene-Kruskal-like Waves after One-Dimensional Electron Wave Breaking in a Cold Plasma
    PRABAL SINGH VERMA, SUDIP SENGUPTA, and PREDHIMAN KAW
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38. Breaking of Upper Hybrid Oscillations in the Presence of an Inhomogeneous Magnetic Field
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39. Dielectric Covered Hairpin Probe for its Application in Reactive Plasmas
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    Applied Physics Letters, ***101,*** *042105, 2012*

40. Plasma Parameters Controlled by Remote Electron Shower in a Double Plasma Device
    M. K. MISHRA and A. PHUKAN
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41. Cure Kinetics Studies of Cyanate Ester and Bisphenol-F Epoxy Blend

PRIYANKA BRAHMBHATT, JISHA UNNIKRISHNAN, J. D. SUDHA, SUBRATA PRADHAN
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42. Steady State and Time-Resolved Fluorescence Study of Isoquinoline: Reinvestigation of Excited State Proton Transfer
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43. Effect of Positional Substitution of Methyl Group on the Fluorescence Properties of Quinolinium Ion
R. RAUTELA, H.C. JOSHI, N.K. JOSHI, N. TEWARI, S. PANT
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44. Fluorescence Characteristics of 5-Amino Salicylic Acid: An Iodide Recognition Study
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*Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, **94,** 119–125, 2012*

45. Behavior of Electrons under Different Biasing Conditions in a Multidipole Plasma
M. K. MISHRA and A. PHUKAN
*Plasma Physics Reports, **38,** 670-678, 2012*

46. Analysis of the Reference Accidental Sequence for Safety Assessment of LLCB TBM System
VILAS CHAUDHARI, RAM KUMAR SINGH, PARITOSH CHAUDHURI, BRIJESH YADAV, CHANDAN DANANI, E. RAJENDRA KUMAR
*Fusion Engineering and Design, **87,** 747-752, 2012*

47. 3D Thermo-Fluid MHD Simulation of Single Straight Channel Flow in LLCB TBM
A.PATEL, R. BHATTACHARYAY, R. SRINIVASAN, E. RAJENDRAKUMAR, P. BHUYAN, P. SATYAMURTHY, P. SWAIN, K.S. GOSWAMI
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48. Overview of the ITER TBM Program
L.M. GIANCARLI, M. ABDOU, D.J. CAMPBELL, V.A. CHUYANOV, M.Y. AHN, M. ENOEDA, C. PAN, Y. POITEVIN, E. RAJENDRA KUMAR, I. RICAPITO, Y. STREBKOV, S. SUZUKI, P.C. WONG, M. ZMITKO
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49. Overview of TBM R&D Activities in India
RAJENDRA KUMAR, T. JAYAKUMAR, A.K. SURI
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50. Nuclear Engineering of Diagnostic Port Plugs on ITER
C.S. PITCHER, R. BARNSLEY, R. FEDER, Q. HU, G.D. LOESSER, B. LYUBLIN, S. PADASALAGI, S. PAK, R. REICHLE, K. SATO, V.S. UDINTSEV, C. WALKER, M. WALSH, Y. ZHAI
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51. Status and Progress of Indian LLCB Test Blanket Systems for ITER
PARITOSH CHAUDHURI, E. RAJENDRA KUMAR, A. SIRCAR, S. RANJITHKUMAR, V. CHAUDHARI, C. DANANI, B. YADAV, R. BHATTACHARYAY, V. MEHTA, R. PATEL, K.N. VYAS, R.K. SINGH, M. SARKAR, R. SRIVASTAVA, S. MOHAN, K. BHANJA, A.K. SURI
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A.DEVARAJU, A. ELAYAPERUMAL, J. ALPHONSA, SATISH V. KAILAS, S. VENUGOPAL
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55. Studies on Scattering of Laser Radiation from Viewing Dump in Tokamak Thomson Scattering System
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HEMEN DAVE, LALITA LEDWANI, NISHA CHANDWANI, PURVI KIKANI, BHAKTI DESAI, M.B. CHOWDHURI and S.K. NEMA
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58. Electron Magneto-Hydrodynamic Waves Bounded by Magnetic Bubble
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M. KUNDU
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J. ASHWIN and R. GANESH
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61. The Electron Geodesic Acoustic Mode
N. CHAKRABARTI, P. N. GUZDAR and P. K. KAW
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62. Studies of Sheath Characteristics in a Double Plasma Device with a Negatively Biased Separating Grid and a Magnetic Filter Field
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VIKRANT SAXENA, K. AVINASH and A. SEN
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P. K. SRIVASTAVA, S. K. SINGH, L. M. AWASTHI and S. K. MATTOO
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65. Nonlinear Electron-Magnetohydrodynamic Simulations of Three Dimensional Current Shear Instability
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HEMEN DAVE and LALITA LEDWANI
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DEEPAK SANGWAN, RATNESHWAR JHA, JANA BROTANKOVA, and M. V. GOPALKRISHNA
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68. Design and Development of Signal Conditioning Electronics for SST-1 Microwave Interferometer System
PRAMILA, R. RAJPAL, C.J. HANSALIA, S.K. PATHAK, P.K. ATREY
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69. General and Crevice Corrosion Study of the Materials for ITER Vacuum Vessel InWall Shield
K.S. JOSHI, H.A. PATHAK, R.K. DAYAL, V.K. BAFNA, I. KIMIHIRO, V. BARABASH
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70. Preliminary Results of Kansas State University Dense Plasma Focus
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71. Microstructural Studies of Electrospark Deposited Aluminide Coatings on 9Cr Steels
JAMNAPARA, N.I., FRANGINI, S., AVTANI, D.U., NAYAK, V.S., CHAUHAN, N.L., JHALA, G., MUKHERJEE, S., KHANNA, A.S.
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PREDHIMAN KAW, SUDIP SENGUPTA and PRABAL SINGH VERMA
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M. BHUYAN and S. R. MOHANTY

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A.K. SHAW, S. KAR and K. S. GOSWAMI
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75. Embedded Calibration System for the DIII-D Langmuir Probe Analog Fiber Optic Links
J. G. WATKINS, R. RAJPAL, H. MANDALIYA, M. WATKINS and R. L. BOIVIN
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J. CHOWDHURY, S. BRUNNER, R. GANESH, X. LAPILLONNE, L. VILLARD, and F. JENKO
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CHANDAN MAITY, NIKHIL CHAKRABARTI, and SUDIP SENGUPTA
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78. Bragg X-Ray Survey Spectrometer for ITER
S. K. VARSHNEY, R. BARNSLEY, M. G. O'MULLANE and S. JAKHAR
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79. Effect of Si on Morphology of Alumina Scales
N. JAMNAPARA, D.U. AVTANI, N.L.CHAUHAN, P.M. RAOLE, S. MUKHERJEE, A.S. KHANNA
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80. Investigation of Surface Properties of Ar-plasma Treated Polyethylene Terephthalate (PET) Films
S.M. PELAGADE, N.L. SINGH, ANJUM QURESHI, R.S. RANE, S. MUKHERJEE, U.P. DESHPANDE, V. GANESAN, T. SHRIPATHI
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RAJWINDER KAUR, A. SARADA SREE, SHIBAN KISHAN MATTOO

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POOJA SURATIA, JIGNESHKUMAR PATEL, RACHANA RAJPAL, SORUM KOTIA, J. GOVINDARAJAN
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84. Development of High Vacuum Facility for Baking and Cool Down Experiments for SST-1 Tokamak Components
ZIAUDDIN KHAN, FIROZKHAN S PATHAN, PARAVASTU YUVAKIRAN, SIJU GEORGE, HIMABINDU MANTHENA, DILIP C RAVAL, PRASHANT L THANKEY, KALPESH R DHANANI, MANOJ KUMAR GUPTA and SUBRATA PRADHAN
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86. SST-1 Gas Feed and Gas Exhaust System
DILIP C RAVAL, ZIAUDDIN KHAN, PRASHANT L THANKEY, KALPESH R DHANANI, FIROZKHAN S PATHAN, PRATIBHA SEMWAL, SIJU GEORGE, PARAVASTU YUVAKIRAN, HIMABINDU MANTHENA and SUBRATA PRADHAN
Journal of Physics: Conference Series, ***390,*** *012036, 2012*

87. PXI Based Vacuum Control for Testing Various Components Of SST-1
KALPESH R DHANANI, ZIAUDDIN KHAN, DILIP C RAVAL, PRASHANT L THANKEY, FIROZKHAN S PATHAN, SIJU GEORGE, YUVAKIRAN PARAVASTU, PRATIBHA SEMWAL and HIMABINDU MANTHENA
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88. Study of Hydrogen Pumping Through Condensed Argon in Cryogenic Pump
K A JADEJA and S B BHATT

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89. Achieving Ultra High Vacuum Conditions in SMARTEX-C: Control of Instabilities and Improved Confinement
LAVKESH LACHHVANI, SAMBARAN PAHARI and Y C SAXENA
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90. Thermo-Mechanical Induced Deformation Simulation Studies for Metal Gaskets for UHV Application
B RAMESH KUMAR and S PUROHIT
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91. Influence of Wall Conditioning on ADITYA Plasma Discharges
R L TANNA, K A JADEJA, S B BHATT, P S BAWANKAR, C N GUPTA, Y S JOISA, P K ATREY, R MANCHANDA, NILAM RAMAIYA, J GHOSH, D RAJU, P K CHATTOPADHYAY, R JHA and THE ADITYA TEAM
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92. Programmable Pulse Generator for Aditya Gas Puffing System
NARENDRA PATEL, CHHAYA CHAVDA, S B BHATT, PRABAL CHATTOPADHYAY and Y C SAXENA
*Journal of Physics: Conference Series, **390,** 012012, 2012*

93. Baking of SST-1 Vacuum Vessel Modules and Sectors
FIROZKHAN S PATHAN, ZIAUDDIN KHAN, PARAVASTU YUVAKIRAN, SIJU GEORGE, GATTU RAMESH, HIMABINDU MANTHENA, VIRENDRAKUMAR SHAH, DILIP C RAVAL, PRASHANT L THANKEY, KALPESH R DHANANI and SUBRATA PRADHAN
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94. Conceptual Design of Vacuum Chamber for Testing of High Heat Flux Components using Electron Beam as a Source
M S KHAN, RAJAMANNAR SWAMY, S S KHIRWADKAR and PROTOTYPE DIVERTORS DIVISION
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FIROZKHAN S PATHAN, ZIAUDDIN KHAN, PRATIBHA SEMWAL, SIJU GEORGE, DILIP C RAVAL, PRASHANT L THANKEY, HIMABINDU MANTHENA, PARAVASTU YUVAKIRAN and KALPESH R DHANANI

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