Fusion Science and Technology
VOLUME 77 · NUMBER 3 · APRIL 2021

Contents

TECHNICAL PAPERS

173  A First Generation Fusion Reactor Using the D-^3^He Cycle
      E. Mazzucato

180  Improved Glow Discharge Polymer Removal from Beryllium Capsules Using Ozone
      John Bae, Hongwei Xu, Casey Kong, Salmaan Baxamusa, Neal Rice, Kelly Youngblood,
      Craig Alford, Michael Stadermann

188  Characterization of Doping Distribution of ICF Capsules by X-Ray Tomography
      Zongwei Wang, Qi Wang, Xuesen Zhao, Dangzhong Gao, Xiaojun Ma

195  Hydride Bed Helium-3 Recovery and Partial Regeneration

199  Targeting a Versatile Actuator for EU-DEMO: Novel Control Scheme for Multisource Pellet
      Injector
      B. Ploeckl, P. T. Lang, M. Kircher, A. Bock, A. Gude, F. Janky, B. Sieglin, W. Suttrop,
      W. Treutterer, T. Zehetbauer, ASDEX Upgrade Team

206  Investigation of Pressure Drop Calculation for Twisted Tape Swirl Tubes by Conventional
      Channel Flow Correlations with Fusion Applications
      Cody S. Wiggins, Arturo Cabral, Lane B. Carasik

220  Method of Temperature Compensation for CFETR 1/32 Vacuum Vessel Mockup
      Haibiao Ji, Jiefeng Wu, Huapeng Wu, Zhihong Liu, Jianguo Ma, Yongqi Gu,
      Xiaosong Fan

228  Preliminary Design of the Fusion Power Shutdown System Unit for ITER
      B. Li, Z. W. Xia, Y. D. Pan, T. Z. Fang, B. Zhang, S. Liu, W. Li, Y. Yang, G. Kiss,

235  Numerical Calculations on Liquid-Metal Magnetohydrodynamic Flow in Magnetic Field Inlet
      Region and Outlet Region
      Hiroshige Kumamaru