

Fusion Technology™

CONTENTS / JULY 1991 –VOL. 19, NO. 4

CARBON MATERIALS SPECIAL

- 2029 Preface: Layered and Doped Materials for Plasma-Facing Components / *Hans Conrads*

TECHNICAL PAPERS

- 2031 Properties and Performance of Beryllium and Carbon for Plasma-Facing Components / *Karl Jürgen Dietz, The JET Team*
- 2035 Performance of Brazed Graphite, Carbon-Fiber Composite, and TZM Materials for Actively Cooled Structures: Qualification Tests / *Ivica Šmid, Charles D. Croessmann, Robert D. Watson, Jochen Linke, Antonino Cardella, Harald Bolt, Nikolaus Reheis, Erich Kny*
- 2041 Brazed Graphite for Actively Cooled Plasma-Facing Components in Tore Supra—Description, Tests, and Performance / *Manfred Lipa, Phillippe Chappuis, Pierre Deschamps*
- 2049 Thick Carbon Deposition by Cascaded Arcs / *Ad J. M. Buuron, Sjaak J. Beulens, Ries J. F. van de Sande, Daniel C. Schram, Jaap G. van der Laan*
- 2059 Interactions of Bulk-Boronized Graphites with Deuterium Plasmas in the PISCES-B Facility / *Yoshi Hirooka, Robert W. Conn, Monali J. Khandagle, Gaetan Chevalier, Toshiaki Sogabe, Teruo Matsuda, Hiroaki Ogura, Hirotaka Toyoda, Hideo Sugai*
- 2070 Simulation and Analysis of the Response of Carbon-Fiber Composites and Pyrolytic Graphites to Off-Normal High Heat Loads / *Jaap G. van der Laan, Henk Th. Klippel, Rob C. L. van der Stad, Co Bakker*
- 2076 Physical and Chemical Sputtering of Multicomponent Solids / *Wolfgang Eckstein, Joachim Roth, Eric Gauthier, János László*
- 2083 Metal Sputtering and Hydrogen Retention in Metal-Carbon Composite Layer Materials / *Kenji Morita*
- 2092 Beryllium, An Alternative Material for Plasma-Facing Components / *Richard E. Nygren, Mark F. Smith*
- 2098 PSI-1 Direct Current Arc Facility for Studying Plasma/Wall Interaction / *Johann Lingertat, Heinz Grote, Peter Pech*

(Continued)

ON THIS COVER

This cover was originally used for the January 1989 special issue, which covered the 3rd Workshop on Carbon Materials.

CONTENTS / JULY 1991 –VOL. 19, NO. 4

(Continued)

- 2101 High Heat Flux Ion Beam Test Facility for Material Research and Development / *Martin Lochter, Reinhard Uhlemann, Jochen Linke*
-

TECHNICAL NOTES ON COLD FUSION

- 2112 Possible Natural Cold Fusion in the Atmosphere / *Nick Hawkins*
- 2114 A Simple Plasma Model for the Description of *d-d* Fusion in Condensed Matter / *Dieter Seeliger, Andreas Meister*
- 2119 Evidence for the Production of *d-d* Fusion Neutrons During Electrolytic Infusion of Deuterons into a Palladium Cylinder / *Michael Bittner, G. Ludwig, Andreas Meister, J. Müller, Detlef Ohms, Eilif Paffrath, Dietmar Rahner, Rainer Schwierz, Dieter Seeliger, P. Stiehl, Klaus Wiesener, Peter Wüstner*
- 2125 Observation of Quad-Neutrons and Gravity Decay During Cold Fusion / *Takaaki Matsumoto*
- 2131 Self-Consistent Field Calculations on Diatomic Hydrogen in a Potential Well / *K. J. Bunch, R. W. Grow*
- 2135 Neutron Emission During a Long-Term Electrolysis of Heavy Water / *Ryuzo Takagi, Hiroo Numata, Izumi Ohno, Kazutaka Kawamura, Shiro Haruyama*
-

DEPARTMENTS

- 2021 Authors
- 2140 Meeting Reports
Summary of the Third Joint Varenna-Lausanne International Workshop on Theory of Fusion Plasmas, Varenna, Italy, August 27–31, 1990 / *Xavier Llobet*
Summary of "Anomalous Nuclear Effects in Deuterium/Solid Systems," An International Progress Review, Provo, Utah, October 22–24, 1990 / *Steven E. Jones, Franco Scaramuzzi, David Worledge, Nate Hoffman*
- 2144 Book Reviews
High-Vacuum Technology: A Practical Guide / reviewed by *Russell DeYoung*
Tritium and Helium-3 in Metals / reviewed by *James L. Anderson*
Megagauss Fields and Pulsed Power Systems / reviewed by *Won-Ho Choe*
- 2147 Volume 19 Indexes
- v Volume 19 Contents