

# Fusion technology™

CONTENTS / AUGUST 1993—VOL. 24, NO. 1

## TECHNICAL PAPERS

### BLANKET ENGINEERING

- 5 Lithium/Water Interactions: Experiments and Analysis / *S. Lomperski, Michael L. Corradini*

### PLASMA ENGINEERING

- 17 Effective Ion Tail Formation During Startup Neutral Beam Heating in D-<sup>3</sup>He Plasmas / *Hideaki Matsuura, Yasuyuki Nakao, Yutaka Tanaka, Kazuhiko Kudo*

### ICF TARGETS

- 28 Effect of D-D Reactions on the Volume Ignition of Laser-Driven D-<sup>3</sup>He Fusion Pellets / *Rasol Khoda-Bakhsh, Heinrich Hora, George H. Miley*

### EXPERIMENTAL DEVICES

- 37 Derivation of Nuclear Parameters for Delayed Neutron Detector Measurements for D-D and D-T Plasma Operation at the Joint European Torus / *Maurizio Angelone*

### MAGNET SYSTEMS

- 50 Poloidal Flux Requirement: Analysis and Application to the Ignitor Configuration / *Marco Nassi*

### MATERIALS ENGINEERING

- 65 Development of Silicon Carbide Composites for Fusion / *Lance L. Snead*

### DIVERTOR SYSTEMS

- 83 A Moving Belt Divertor Concept / *Lance L. Snead, Roger A. Vesey*

### ECONOMICS

- 97 Fusion Power Economy of Scale / *Thomas J. Dolan*

---

(Continued)

#### ON THIS COVER

This month's cover is based on Fig. 16 of the paper by Snead and Vesey.

# **CONTENTS / AUGUST 1993–VOL. 24, NO. 1**

(Continued)

## **TECHNICAL NOTES ON COLD FUSION**

- 112** Comments on the Model for Coherent Deuteron-Deuteron Fusion in Crystalline Pd-D Lattice / *S. N. Vaidya*
  - 115** Fusion in Condensed Matter—A Likely Scenario / *D. Das, M. K. S. Ray*
  - 122** The Surfdyn Concept: An Attempt to Solve (or Rename) the Puzzles of Cold Nuclear Fusion / *Peter Glück*
- 

## **DEPARTMENTS**

- 1** Authors
- 127** Letters to the Editor
  - Anomalous Tokamak Transport and Turbulence Control / *Lee M. Hively*
  - Ion Defocusing in Multicusp Plasma Confinement Systems / *T. J. Dolan*
- 130** Corrigendum