

[038_109]Reports of Research Institute for Applied Mechanics

<https://hdl.handle.net/2324/6783297>

出版情報 : Reports of Research Institute for Applied Mechanics. 38 (109), 1992-02. 九州大学応用力学研究所
バージョン :
権利関係 :

**Summaries of Papers Published in *Bulletin of Research
Institute for Applied Mechanics*
(Japanese) No. 72, 1991**

**Noncircular Plasma Shape Analysis in Long-Pulse Current
Drive Experiment in TRIAM-1M**

By Mayumi MINOOKA, Shoji KAWASAKI, Eriko JOTAKI,
Shin-ichi MORIYAMA, Akihiro NAGAO, Kazuo NAKAMURA,
Naoji HIRAKI, Yukio NAKAMURA and Satoshi ITOH

Plasma cross section was noncircularized and the plasma shape was analyzed in order to study the characteristics of the plasma in long-pulse current drive experiments in high-field superconducting tokamak TRIAM-1M. Filament approximation method was adopted, since on-line processing by data processing computer is possible. The experiments of the noncircularization were carried out during 30- to 60-sec discharges. As a result, it became clear that D-shape plasma of elongation ratio 1.4 was maintained stably. By the analysis the internal inductance and poloidal beta were assessed, and so informations about the plasma current profile and internal pressure were obtained.

**VUV Spectroscopic Measurement
in Current Drive Experiments in TRIAM-1M**

By Shigemitsu HARA, Shoji KAWASAKI, Eriko JOTAKI,
Shin-ichi MORIYAMA, Akihiro NAGAO, Kazuo NAKAMURA,
Yukio NAKAMURA, Naoji HIRAKI and Satoshi ITOH

VUV spectrum and time evolution of line intensity were measured. Steady-state transport equation was solved numerically. and the solution was qualitatively compared with the experimental results.