

## CONTENTS

Preface

H. Yamada-----i

## EXPERIMENT

Energy Output and Material Balance During Plasma Electrolysis of Water

K. Iizumi, S. Mitsushima, N. Kamiya and K.-I. Ota-----1

Microscopic Structural Change of Pd During Repeated Cathodic and Anodic Electrolysis in Glycerin and Phosphoric Acid

H. Numata and M. Ban-----6

Analysis of Nuclear Transmutation Yields for Pd-H Systems by SCS Model

Y. Toriyabe, T. Mizuno, T. Ohmori and Y. Aoki-----16

Reproduction of Nuclear Transmutation in CaO/Sr/Pd Samples by Deuterium Gas Permeation

H. Iwai, R. Satoh, R. Nishio, A. Taniike, Y. Furuyama and A. Kitamura-----23

Producing an Element of Mass Number 137 on Multi-layered Pd Sample with Small Amount of Cs by Deuterium Permeation

H. Yamada, S. Narita, S. Taniguchi, T. Ushirozawa, S. Kurihara,  
M. Higashizawa, H. Sawada and M. Itagaki-----28

Possibility of Inducing Selective Transmutation in Discharge Experiment

S. Narita, H. Yamada, D. Takahashi, Y. Wagatsuma, M. Itagaki and S. Taniguchi-----33

Electrochemical Compression of Hydrogen inside a Pd-Ag Thin Wall Tube, by Alcohol-Water Electrolyte

F. Celani, A. Spallone, P. Marini, V. Di Stefano, M. Nakamura, V. Andreassi,  
A. Mancini, E. Righi, G. Trenta, E. Purchi, U. Mastromatteo, E. Celia,  
F. Falcioni, M. Marchesini, E. Novaro, F. Fontana, L. Gamberale,  
D. Garbelli, P. G. Sona, F. Todarello, G. D'agostaro, P. Quercia-----38

## THEORY

Possibility of Control on Coulomb Potential S. Sasabe.....	47
Mechanism of Nuclear Reaction and Bose-Einstein Condensation in Solids K. Tsuchiya.....	51
Brief Review on Fusion Rates of Bosonized Condensates – Part-I: Basic Theory – A. Takahashi and N. Yabuuchi.....	56
Brief Review on Fusion Rates of Bosonized Condensates – Part II: EQPET/TSC Model – A. Takahashi and N. Yabuuchi.....	63
Possible Nuclear Transmutation of Nitrogen in Atmosphere of Earth (II) M. Fukuhara.....	71
Comments on Role of CaO-Layer in Iwamura Cold Transmutation A. Takahashi and N. Yabuuchi.....	74
Formation of Tetrahedral, Octahedral or Hexahedral Symmetric Condensation by Hopping of Alkali or Alkaline-earth Metal Ion H. Miura.....	79
Tetrahedral and Cubic Forms $\Psi$ and Condensate Nuclear Fusion N. Yabuuchi and A. Takahashi.....	84