

Preface

This book is Proceedings of the 4th Meeting of Japan CF-Research Society, JCF4 which was held at Iwate University, Morioka Japan, on October 17-18, 2002.

Japan CF-Research Society (JCF) was established in March 1999. The main aim of the society is to investigate the nuclear reactions that occur in the solid-state or condensed matter, especially in low energy regions. CF stands for Condensed-matter Fusion, Coherently-induced Fusion, Cleaner Fission, Cold Fusion and other nuclear reactions in condensed matter. And the main goal is expected to develop science and technologies to extract useable energy from CF phenomena. CF researches cross traditional academic domains and require an interdisciplinary approach in collaboration efforts of nuclear physics, fusion science, radiation physics, condensed-matter physics, surface and catalysis science, metallurgy, hydrogen science, electrochemistry, calorimetry, accelerator and beam science, laser science, nuclear and quantum science and engineering, molecular dynamics, acoustics, thermodynamics, physical chemistry, and so on. Another significant goal of the society is to enhance Japan's role as a focal point of research in this area and to act as a clearing house for international cooperation and information exchange. This commonly reasons why we employ English as conference language and publish books of ABSTRACTS and PROCEEDINGS in English. For the past three meetings, JCF1, JCF2 and JCF3, we published books of ABSTRACTS only on our web-site (<http://www.eng.osaka-u.ac.jp/nuc/03/nuc03web/JCF/>). The society has decided to issue books of PROCEEDINGS for further meetings from the JCF4 meeting, as printed versions and electronic versions in our web-site.

Submitted papers to JCF4 were peer-reviewed by the editorial board (Chairman: Prof. Hiroshi Yamada, Iwate University). One or two reviewers were selected by the board to review papers, comment problems and errors, return to authors for correction. Most papers were accepted to publish via one-through reviewing processes with minor corrections.

In JCF4 Meeting, there came about 50 participants and 26 papers were presented (see JCF4 ABSTRACTS). This book of JCF4 PROCEEDINGS contains 21 full papers through submission and reviewing processes. For non-JCF members, inquiry to obtain a copy of book should be sent to Prof. Hiroshi Yamada (Faculty of Engineering, Iwate University, Morioka Japan; yamada@dragon.elc.iwate-u.ac.jp).

We thank all participants of JCF4 for their efforts to make this PROCEEDINGS and hope the information of this proceedings useful to further progress of CF studies.

Akito Takahashi (Prof., Osaka University), Director-in-Chief of JCF

Hiroshi Yamada (Prof., Iwate University), Chairman of JCF Editorial Board

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