

Table of Contents

EXECUTIVE SUMMARY	I
TECHNICAL SUMMARY OF THE PANEL	IV
Agenda	
Participants List	
SESSION 1	
1. Welcome Address, T. Kondo (JAERI)	1
2. Opening Address, A. Miyahara (NIFS).....	3
3. Requirements to the 14MeV Intense Neutron Source for Fusion Materials Study, S. Ishino (Univ. Tokyo).....	11
SESSION 2	
1. Issues, Options, Plans, and Approach for IFMIF, R. E. Price (DOE).....	17
2. Overview of Japanese Activities on Accelerator based Neutron Source for Nuclear Fusion Material Research, K. Noda (JAERI).....	23
3. The Need for In-Situ/In-Beam Experiments under Realistic Conditions, E. R. Hodgson (CIEMAT).....	41
4. User-developed Criteria for a Neutron Source, F. W. Wiffen (DOE).....	45
5. Needs of INS for ITER Related Materials R&D, T. Tanabe (Osaka Univ.).....	51
6. IEA Working Group on High-Energy, High-Flux Neutron Sources - Role and Approach, D. G. Doran (PNL).....	63
SESSION 3	
1. A Fusion Test Facility Based on CWDD, D. L. Smith (ANL)...	69
2. Accelerator System of ESNIT - Energy Selective Neutron Irradiation Test Facility, M. Odera & M. Sugimoto(JAERI)...	99
3. Design Concept for a Full-Scale D-Lithium IFMIF, G. P. Lawrence (LANL).....	117
4. AECL Research - The Canadian Approach, B. G. Chidley (AECL).....	141
5. Additional Studies Related to the Proposal for a Novel High-Intensity 14MeV Cutoff Neutron Source Based on the $^1\text{H}(t, n)^3\text{He}$ Source Reaction, S. Cierjacks (KfK).....	147

SESSION 4

1. Advanced Conventional Accelerator Technology,
S. O. Schriber (LANL)..... 159
2. Realistic Approach to the 35MeV Deuteron Accelerator for
ING, K. Yamamoto(Toshiba) & S. Kawasaki(Saitama Univ.)... 195
3. Feasibility Study of an Intermediate Intensity 14MeV
Neutron Source (SORGENTINA), M. Martone (ENEA)..... 203
4. Generation of High Current Density H^+ and H^- Beams,
Y. Okumura (JAERI)..... 225
5. Superconducting Accelerator Components and Systems,
R. B. Clare (ANL)..... 237
6. Available High Power Tubes for INS, A. Miyahara (NIFS).. 255
7. Design of RF System for the 14MeV Intense Neutron Source,
Y. Taniguchi (Denko)..... 261

SESSION 5

1. FMIT Lithium Target Technology, S. O. Schriber (LLNL).... 267
2. Concept of Beam Target and Li Circulation System
for ESNIT, Y. Kato (JAERI)..... 273
3. Multiple Targets, Multiple Beams for IFMIF,
G. P. Lawrence (LANL)..... 287
4. Some Ideas about Means to Make it Easy to Realize INS
(Gas-Target), A. Isoya (ULVAC)..... 313
5. Measurements of Neutrons Generated by Deutrons Incident
on Thick Li Targets, M. Sugimoto (JAERI)..... 317

SESSION 6

6. Neutronics in d+Li Test Cell, F. M. Mann (WHC)..... 327
7. Needs and Concept of Post Irradiation Examination (PIE)
Facility for Small Specimen Experiments,
H. Matsuo (JAERI)..... 339
8. Irradiation Test Assembly Requirements,
K. R. Thoms (ORNL)..... 349
9. Requirements for Post-Irradiation Examination Facility,
H. Matsui (Tohoku Univ.)..... 357
10. Comments on In-situ Experimentation
C. Kinoshita (Kyushu Univ.)..... 377