

Ⅱ. 第2回 Neutron Cross Sections and Technology 会議 (ワシントン) 出席報告

百田光雄(日本原子力研究所)

この会議は1966年3月に行なわれた第1回会議に続くもので、本年3月4～8日の間、前回と同じくワシントンで開かれた。会議はAmerican Nuclear Society, USAEC, National Bureau of Standards, American Physical Societyの共催で、第1回が国内会議であつたのに対し、この第2回からは国外からの参加も勧奨され、準国際的なものとなつた。発表論文(口答発表にならなかつたものも含めて)のリストを本文末に載せるが、わが国からは、当シグマ委員会の仕事として進められてきた中島龍三氏、神田幸則氏のReview of Some Fast Neutron Cross Section Data (B-10)と、更田豊治郎氏、中島豊氏、岡本浩一氏のA Computer File of Resonance Data (G-7)、原研の浅見明氏等のリアックによる測定の結果Neutron Resonance Parameters of Cadmium and Antimony (E-14)が報告された。

この会議は原子力開発に必要な中性子反応断面積に関し、測定者と利用者の立場から情報を交換することを目的とするものである。したがつて核物理と炉物理炉工学という二つの異なつた専門の人々の集りである関係上、いろいろな分野についての現状と問題点の紹介的な総合講演が数多く組み込まれていたことは目的達成のために有効なことであつた。会議の内容は、これを短かく要約することは不可能であるので本文末の発表論文リスト、或は講演予稿集(当方に御請求になれば複写をお送りします)、或はまた会議の論文集(6月末頃NBSから刊行される予定)を御覧いただくとして、筆者の印象に残つたことを記せば、(1)群定数を検討するための炉物理実験が行なわれるようになつてきたこと、(2)Pu-240のsubthreshold fissionについてユーラトムのBC

MN(ゲール)の人達によつて注目すべき見事な結果が報告されたこと(D-8), (3)地下核爆発を利用したU-238 の中性子捕獲に関する詳細な測定結果が報告されたこと(D-13)などである。

List of Papers submitted to the 2nd Washington Conference

Session A. THE NEED FOR AND USE OF NEUTRON DATA IN FIELDS OF
BASIC AND APPLIED SCIENCE

- A-1. Invited Paper - The Interpretation of Astrophysical Phenomena
W. A. Fowler, California Institute of Technology
- A-2. Cosmic Abundances and the Extrapolation of Nuclear Systematics
P. A. Seeger, Los Alamos Scientific Laboratory
- A-3. Invited Paper - The Field of Shielding Technology
H. Goldstein, Columbia University
- A-4. Sensitivity of Gamma-Ray Dose Calculations to the Energy Dependence of Gamma-Ray Production Cross Sections
K. J. Yost and M. Solomito, Oak Ridge National Laboratory
- A-5. Temperature Dependence of the Average Transmission of Tungsten between 2 KeV and 2 MeV Neutron Energy
F. H. Fröhner, J. L. Russell, Jr., and J. C. Young, Gulf General Atomic
- A-6. Invited Paper - The Field of Radiation Damage
M. S. Wechsler, Oak Ridge National Laboratory
- A-7. Production of s-Nuclei from e- and r- Seed-Nuclei by a Fixed Neutron Flux
J. P. Amiet and H. D. Zeh, Universität Heidelberg

SESSION B. STANDARD DATA, FLUX MEASUREMENTS, AND ANALYSIS

- B-1. Invited Paper - Neutron Flux Measurements
R. Batchelor, AWRE, Aldermaston
- B-2. Invited Paper - Developments in Standard Neutron Cross Sections
J. H. Gibbons, Oak Ridge National Laboratory

- B-3. Helium Production Cross Section Measurements
J. Weitman and N. Däverhög, AB Atomenergi, Studsvik
- B-4. Measurement of Gamma-Ray Production Cross Sections using a Linac
V. J. Orphan and A. D. Carlson, Gulf General Atomic
- B-5. Neutron Cross Sections of ${}^6\text{Li}$ in the Kilovolt Region
W. F. E. Pineo, Duke University; and J. A. Farrell, Los Alamos Scientific Laboratory
- B-6. Total Neutron Cross Sections of ${}^6\text{Li}$, ${}^7\text{Li}$, and Lithium from 10 to 1236 keV
C. T. Hibdon and F. P. Mooring, Argonne National Laboratory
- B-7. The Non-Elastic Cross-Section of Beryllium for Neutrons from 2.3 to 5.2 MeV
J. R. P. Eaton and J. Walker, University of Birmingham, England
- B-8. Fast Neutron Energy Measurements
J. C. Davis and F. T. Noda, University of Wisconsin
- B-9. Experimental Techniques in Absolute Measurements of the Fission Neutron Yield
A. De Wolpi, Argonne National Laboratory
- B-10. Review of Some Fast Neutron Cross Section Data
Y. Kanda, Tokyo Institute of Technology; and R. Nakasima, Hosei University
- B-11. Characteristics of Various Isotopes for Sandwich Foil Measurements of Neutron Spectra
T. J. Connolly, Stanford University; F. de Kruijf, Reactor Institute, Delft
- B-12. Advances in Accurate Fast Neutron Detection
A. De Volpi and K. G. Porges, Argonne National Laboratory
- B-13. Non-Elastic and Some Inelastic Cross Sections in ${}^{12}\text{C}$ and ${}^{14}\text{N}$ at 15.28 MeV
L. F. Hansen, J. D. Anderson, M. L. Stelts, and C. Wong, Lawrence Radiation Laboratory, Livermore
- B-14. Neutron Differential Cross Section Evaluation by a Multiple Foil Activation Iterative Method
W. N. McElroy, Battelle - PNL; S. Berg, TRW Systems, Inc.; and G. Gigas and T. Crockett, Atomics International

- B-15. Spatially Continuous Neutron Flux Plotting with Spark Chambers
K. G. Porges, W. W. Managan, and W. C. Kaiser,
Argonne National Laboratory
- B-16. Optimum Foil Thickness for Flux Measurement
D. Ilberg and Y. Segal, Technion - Israel Institute
of Technology
- B-17. The ⁵⁵Mn Resonance Activation Integral
R. Sher, Brookhaven National Laboratory

SESSION C. THE NEED FOR AND USE OF NEUTRON DATA IN REACTOR
DESIGN APPLICATIONS

- C-1. Invited Paper - Use of Neutron Data in Thermal Reactor Power Plant Design
R. J. French, Westinghouse - Pressurized Water Reactor
- C-2. Sensitivity of Reactivity Characteristics to Cross Section Uncertainties for Plutonium-Fueled Thermal Systems
U. P. Jenquin, V. O. Uotinen, and C. M. Heeb,
Battelle - PNL
- C-3. Invited Paper - Significance of Neutron Data to Fast Reactor Power Design
B. Wolfe, General Electric - Advanced Products Operations
- C-4. Fission Product Cross Sections and Poisoning in Fast Reactors
V. Benzi, Centro di Calcolo, CNEN, Bologna
- C-5. The $(n, \gamma n')$ and Fission Reactions as Possible Sources of Low Energy Neutrons in Fast Critical Assemblies
K. Parker, E. D. Pendlebury, J. P. Sheperd, and P. Stanley, AWRE, Aldermaston
- C-6. Fissile Doppler Effect Measurement Data and Techniques
C. E. Till and R. A. Lewis, Argonne National Laboratory
- C-7. An Examination of Methods for Calculating the Doppler Coefficient in Fast Breeder Reactors
M. W. Dyos, C. R. Adkins, and T. E. Murley,
Westinghouse - Advanced Reactors Division

- C-8. Invited Paper - Influence of Neutron Data in the Design of Other Types of Power Reactors
A. M. Perry, Oak Ridge National Laboratory
- C-9. Effects of Cross-Section Uncertainties in Compact Space Power Reactors
P. S. Brown, J. L. Watts, and R. J. Doyas,
Lawrence Radiation Laboratory, Livermore
- C-10. New Cross Section Needs for Zirconium Hydride Snap Reactors
E. H. Ottewitte, Atomics International
- C-11. Fissprod, A Fission Product Program for Thermal Reactor Calculations
F. E. Lane and W. H. Walker, Atomic Energy of Canada, Ltd.
- C-12. Effects of Uncertainties in Nuclear Data on Experimental and Calculated Reactor Burnup
D. E. Christensen, R. C. Liikala, and R. P. Matsen,
Battelle-PNL
- C-13. Ratio of Photon to Neutron Fission Rates in Fast Reactors
E. J. Dowdy, W. H. Köhler, and N. B. Poulsen,
Texas A & M University
- C-14. Criticality and Central Reactivity Calculations using ENDF/B Data
R. J. LaBauve and M. E. Battat, Los Alamos Scientific Laboratory
- C-15. Transuranium Cross Sections which Influence FBR Economics
E. H. Ottewitte, Atomics International

SESSION D. MEASUREMENT AND ANALYSIS OF TOTAL AND PARTIAL CROSS SECTIONS FOR FISSILE AND FERTILE NUCLEI

- D-1. Invited Paper - Fission Cross Section Measurements: Experimental Results and Interpretation
A. Michaudon, Centre d'Etudes Nucleaires de Saclay
- D-2. Normalization of Relative ^{235}U Fission Cross-Sections in the Resonance Region
A. J. Deruytter and C. Wagemans, Central Bureau for Nuclear Measurements, EURATOM, Geel, and Studiecentrum voer Kernenergi, Mol

- D-3. Fission Cross Section Measurement of ^{235}U
M. G. Cao, E. Migneco, J. Theobald, J. Wartena,
and J. Winter, Central Bureau for Nuclear
Measurements, EURATOM, Geel
- D-4. Precise 2200 M/S Fission Cross-Section of ^{235}U
A. J. Deruytter, P. Pelfer, and J. Spaepen, Central
Bureau for Nuclear Measurements, EURATOM, Geel
- D-5. Measurements of the U-235 Fission Cross Section in the
keV Neutron Energy Region
W. P. Poenitz, Argonne National Laboratory
- D-6. The Scattering Cross Section of ^{240}Pu
M. G. Cao, E. Migneco, J. Theobald, and J. Wartena,
Central Bureau for Nuclear Measurements, EURATOM,
Geel
- D-7. Final Results on the Neutron Total Cross Section of
 ^{240}Pu
W. Kolar and K. H. Böckhoff, Central Bureau for
Nuclear Measurements, EURATOM, Geel
- D-8. Resonance Grouping Structure in the Neutron Induced
Subthreshold Fission of ^{240}Pu
E. Migneco and J. Theobald, Central Bureau for
Nuclear Measurements, EURATOM, Geel
- D-9. Neutron Capture Measurements in the Resonance Region:
Cu and ^{240}Pu
H. Weigmann, J. Winter, and H. Schmid, Central
Bureau for Nuclear Measurements, EURATOM, Geel
- D-10. Neutron Scattering Cross Section of ^{233}U , ^{235}U , and
 ^{241}Pu from 1 to 30 eV
G.D. Sauter, University of California, Davis; and
C.D. Bowman, Lawrence Radiation Laboratory,
Livermore
- D-11. Invited Paper - Fission Cross Section Measurements:
Present and Potential Capabilities
J. A. Farrell, Los Alamos Scientific Laboratory
- D-12. Neutron Induced Fission Cross Section Measurements in
 ^{244}Cm
R. R. Fullwood, J. H. McNally, and E. R. Shunk,
Los Alamos Scientific Laboratory
- D-13. ^{238}U Neutron Capture Results from Bomb Source Neutrons
N. W. Glass, A. D. Schelberg, L. D. Tatro, and
J. H. Warren, Los Alamos Scientific Laboratory

- D-14. Measurement of the Absolute Value of Eta for ^{241}Pu by the Manganese Bath Method
J. R. Smith and S.D. Reeder, Idaho Nuclear Corporation
- D-15. Techniques for Fission Cross-Section Measurements for Elements with High α and Spontaneous Fission Activity
P. G. Koontz and D. M. Barton, Los Alamos Scientific Laboratory
- D-16. Fragment Angular Distributions for Monoenergetic Neutron-Induced Fission of ^{239}Pu
J. R. Huizenga and A. N. Behkami, University of Rochester and Argonne National Laboratory; J. W. Meadows, Jr., Argonne National Laboratory; and E. D. Klema, Northwestern University
- D-17. Fission Cross-Section of ^{232}Th for Thermal Neutrons
M. Neve de Mevergnies and P. del Marmol, C.E.N.-S.C.K., Mol
- D-18. A Single Level Analysis of ^{233}U Cross Sections
M. J. Schneider, Westinghouse Astronuclear Laboratory
- D-19. Relative Fission Cross Sections of ^{236}U , ^{238}U , ^{237}Np , and ^{235}U
W. E. Stein, R. K. Smith, and H. L. Smith, Los Alamos Scientific Laboratory
- D-20. Low Energy U-235 $\bar{\nu}$ (E) Measurements
S. Weinstein and R. C. Block, Rensselaer Polytechnic Institute

SESSION E. THE MEASUREMENT AND ANALYSIS OF TOTAL AND PARTIAL CROSS SECTIONS FOR NON-FISSILE NUCLEI

- E-1. Invited Paper - Measurements in the Resonance Region
M. C. Moxon, AERE, Harwell
- E-2. A Study of Partial Radiative Widths at and between Neutron Resonances
C. Samour, R. Alves, H. Jackson, J. Julien, and J. Morgenstern, Centre d'Etudes Nucleaires de Saclay

- E-3. Gamma Rays Following Neutron Capture in Iron, Sodium, and Thorium
O. A. Wasson, J. B. Garg, R.E. Chrien, and M. R. Bhat, Brookhaven National Laboratory
- E-4. Neutron Resonance Cross Section for ^{147}Pm
G. J. Kirouac, H. M. Eiland, R. E. Slovacek, C. A. Conrad, and K. W. Seemann, Knolls Atomic Power Laboratory
- E-5. Radiation Width of the 2.85 keV Level in ^{23}Na
S. J. Friesenhahn, W. M. Lopez, F. H. Fröhner, A. D. Carlson, and D. G. Costello, Gulf General Atomic
- E-6. Invited Paper - Fast Neutron Cross Sections: keV to MeV
S. A. Cox, Argonne National Laboratory
- E-7. Neutron Radiative Capture in the keV Region
R. W. Hockenbury, Z. M. Bartolome, W. R. Moyer, J. R. Tatarczuk, and R. C. Block, Rensselaer Polytechnic Institute
- E-8. Neutron Scattering Measurements in Low Energy Cd and Rh Resonances
T. J. King and R. C. Block, Rensselaer Polytechnic Institute
- E-9. High Resolution Total Fast Neutron Cross Sections on Some Non-Fissile Nuclei in the Energy Range $0.5 \leq E_n \leq 30$ MeV
S. Cierjacks, P. Forti, D. Kopsch, L. Kropp, and J. Nebe, Institut für Angewandte Kernphysik Karlsruhe
- E-10. Elastic Scattering of Fast Neutrons by Praseodymium and Lanthanum
D. L. Bernard, G. Lenz, and J. D. Reber, University of Virginia
- E-11. Gamma-Rays from Inelastic Neutron Scattering in Nitrogen
I. Bergqvist, H. Condé and G. Nyström, Research Institute of National Defense, Stockholm
- E-12. Total Neutron Cross Sections of Carbon, Iron, and Lead in the MeV Region
R. B. Schwartz, R. A. Schrack, and H. T. Heaton, National Bureau of Standards

- E-13. Level Schemes and Transition Intensities Following Neutron Resonance Capture for Several Nuclei
R. Alves, C. Samour, J. M. Kuchly, J. Julien, and J. Morgenstern, Centre d'Etudes Nucleaires de Saclay
- E-14. Neutron-Resonance Parameters of Cadmium and Antimony
A. Asami, M. Okubo, Y. Nakajima, and T. Fuketa, Japan Atomic Energy Research Institute, Tokai-mura
- E-15. Neutron Capture Resonances of Tungsten in the Range 150 eV to 20 keV
Z. M. Bartolome, W. R. Moyer, R. W. Hockenbury, J. R. Tatarczuk, and R. C. Block, Rensselaer Polytechnic Institute
- E-16. High Resolution Fast Neutron Total Cross Section Measurements with an Electron Linear Accelerator
K. H. Böckhoff, Central Bureau for Nuclear Measurements, EURATOM, Geel
- E-17. The Neutron Inelastic Cross Section for the Production of ^{103m}Rh
J. P. Butler and D. C. Santry, Chalk River Nuclear Laboratories
- E-18. Abstract Withdrawn
- E-19. The $^{14}\text{N}(n, n'\gamma)$ Reaction for $6.0 \leq E \leq 8.4$ MeV
J. K. Dickens, E. Eichler, F. G. Perey, P. H. Stelson, J. Ashe, and D. O. Nellis, Oak Ridge National Laboratory
- E-20. Measurements of Absorption Resonance Integrals for ^{176}Hf , ^{177}Hf , ^{178}Hf , ^{179}Hf , and ^{180}Hf
R. H. Fulmer, L. J. Esch, F. Feiner, and T. F. Ruane, Knolls Atomic Laboratory
- E-21. Fast Neutron Scattering from ^7Li
H. H. Knitter and M. Coppola, Central Bureau for Nuclear Measurements, EURATOM, Geel
- E-22. Capture Cross Section Measurements for Lu, ^{151}Eu , and ^{153}Eu and the Total Cross Section of Natural Eu
M. V. Harlow, A. D. Schelberg, L. D. Tatro, J. H. Warren, and N. W. Glass, Los Alamos Scientific Laboratory
- E-23. A Systematic Investigation of Fast Neutron Elastic Scattering
B. Holmqvist and T. Wiedling, AB Atomenergi, Studsvik

- E-24. Total Neutron Cross Sections of ^9Be , ^{14}N , and ^{16}O
C. H. Johnson, F. X. Haas, J. L. Fowler, F. D. Martin, R. L. Kernell, and H. O. Cohn, Oak Ridge National Laboratory
- E-25. Resonance Widths, Distribution of Resonance Spacing, and Correlation Factors between the Parameters Γ and D , D_i and D_{i+1} , and the Partial Radiative Widths $\Gamma_{\gamma i}$
J. Julien, R. Alves, J. Morgenstern, and C. Samour, Centre d'Etudes Nucleaires de Saclay
- E-26. Cross Section Measurements of Zirconium
W. M. Lopez, F. H. Fröhner, S. J. Friesenhahn and A. D. Carlson, Gulf General Atomic.
- E-27. The Strength Functions S_0 and S_1 , The Total Radiative Width Γ_{γ} and the Mean Level Spacing \bar{D} as a Function of Mass Number and Spin Value
J. Morgenstern, R. Alves, and S. de Barros, J. Julien, and C. Samour, Centre d'Etudes Nucleaires de Saclay
- E-28. The Thermal Cross Sections and Paramagnetic Scattering Cross Sections of the Yb Isotopes
S. F. Mughabghab and R. E. Chrien, Brookhaven National Laboratory
- E-29. Cross Section Measurements for the Reaction $^{151}\text{Eu}(n, \gamma)^{152\text{m}}\text{Eu}$ between 0.01 eV and 0.5 eV
F. Poortmans, A. Fabry, and I. Girlea, S.C.K. - C.E.N., Mol
- E-30. s- and p- Wave Resonances of ^{232}Th
Hla Shwe, G. E. Thomas, and L. M. Bollinger, Argonne National Laboratory
- E-31. Precision Measurements of Excitation Functions of $(n, 2n)$, (n, p) , and (n, α) Reactions Induced by 13.5 - 14.7 MeV Neutrons
H. K. Vonach, W. G. Vonach, Technische Hochschule München; H. Münzer, Universität München; and P. Schramel, Ges. für Strahlenforschung Neuherberg
- E-32. Total Neutron Cross Section of ^{204}Tl from 0.1 eV to 1000 eV
T. Watanabe, G. E. Stokes, and R. P. Schuman, Idaho Nuclear Corporation
- E-33. A Method of Spin Assignment of Neutron Resonances
C. Coceva, F. Corvi, P. Giacobbe, Comitato Nazionale per l'Energia Nucleare, Italy; G. Carraro, Central Bureau for Nuclear Measurements, EURATOM, Geel

SESSION F. THE THEORY OF NUCLEAR CROSS SECTIONS AND THE
ANALYSIS OF NEUTRON INTERACTIONS

- F-1. Invited Paper - Nuclear Theory and Neutron Cross
Sections
E. W. Vogt, University of British Columbia
- F-2. Correlations in Positions of Single-Particles Levels
of Complex Nuclei
S. I. Sukchoruchkin, Institute for Theoretical and
Experimental Physics, Moscow
- F-3. Calculations of Elastic Scattering and Inelastic Direct
Processes of Fast Neutrons by U-238
F. Bühler, Institut für Strahlenphysik, Stuttgart
- F-4. Determination of the Optical Potential Depth from a
Many Body Approach
N. Azziz, Westinghouse Atomic Power Divisions
- F-5. The Real Part of the Forward Scattering Amplitude
L. Stewart, Los Alamos Scientific Laboratory
- F-6. Thermal Neutron Cross Sections and Resonance Integrals
for Transuranium Isotopes
A. Prince, Brookhaven National Laboratory
- F-7. Interpretation of the Correlated Analysis of Fission,
Total and Capture Cross Section Data
F. T. Adler and D. B. Adler, University of Illinois
- F-8. Invited Paper - The Theory of Nuclear Fission,
J. J. Griffin, University of Maryland
- F-9. R-Matrix Resonance Parameters
D. W. Bergen, Los Alamos Scientific Laboratory
- F-10. Strength Function Estimation for Two Porter-Thomas
and Wigner Populations
F. H. Fröhner, S. J. Friesenhahn, A. D. Carlson,
and W. M. Lopez, Gulf General Atomic
- F-11. Evaluation of Re-185 and Re-187 Neutron Cross Sections
for the ENDF/B Library
W. B. Henderson and J. W. Zwick, General Electric
- NMPO
- F-12. Calculation of Photon Production Cross Sections and
Spectra from 4 to 15 MeV Neutron Induced Reactions
R. J. Howerton, Lawrence Radiation Laboratory,
Livermore

- F-13. Theory of Doppler Broadening of Neutron Resonances
S. N. Purohit, T. Shea and S. Kang, Rensselaer
Polytechnic Institute
- F-14. The Neutron Cross Section and Resonance Integrals of
Holmium
T. E. Stephenson, Brookhaven National Laboratory
- F-15. Method of Data Analysis for the Thermal Neutron Cross
Sections and Maxwellian Averages of Fissionable Nuclei
E. W. Vogt, University of British Columbia, and
G. C. Hanna and D. McPherson, Chalk River, Canada

SESSION G. DATA STORAGE, RETRIEVAL, AND EVALUATION

- G-1. Invited Paper - Recent Developments in the Automated
Compilation and Publication of Experimental Data
S. Pearlstein, Deputy Director, National Neutron
Cross Section Center, Brookhaven National
Laboratory
- G-2. Invited Paper - Automated Evaluation of Experimental
Data
H. A. Alter, Atomics International
- G-3. Invited Paper - Principles of Cross Section Evaluation
J. J. Schmidt, Kernforschungszentrum, Karlsruhe
- G-4. Neutron Data Compilation at the International Atomic
Energy Agency
H. D. Lemmel, P. M. Attree, W. M. Good,
V. A. Konshin, and A. Lorenz, IAEA Nuclear Data
Unit
- G-5. Nuclear Data Activities of the European Nuclear
Energy Agency Compilation Center
V. I. Bell, ENEA Neutron Data Compilation Centre,
Gif-Sur-Yvette
- G-6. An Integrated System for Producing Computational
Constants for Neutronics and Photonics Codes
R. J. Howerton, Lawrence Radiation Laboratory,
Livermore
- G-7. A Computer File of Resonance Data
T. Fuketa, Y. Nakajima, and K. Okamoto, Japan
Atomic Energy Research Institute, Tokai-mura

- G-8. Storage and Retrieval of Photon Production and Interaction Data in the ENDF/B System
D. J. Dudziak and R. J. LaBauve, Los Alamos Scientific Laboratory
- G-9. A Mathematical Scheme for Evaluating Cross-Section Data on the Fissile Isotopes ^{233}U , ^{235}U and ^{239}Pu in the Energy Range 10 keV - 10 MeV
P. C. Young and K. B. Cady, Cornell University
- G-10. On Line Computer System for Cross Section Evaluation
L. E. Beghian and J. Tardelli, Lowell Technological Institute
- G-11. Data Reduction with a Small Remote Computer Linked to a CDC-6600
W. R. Moyer, Rensselaer Polytechnic Institute; and R. P. Bianchini and E. Franceschini, New York University
- G-12. Evaluation of Uranium-238 Neutron Data in the Energy Range .0001 eV to 15 MeV
M. Vastel, Electricité de France, Paris, and J. Ravier, Association EURATOM-CEA, Cadarache

SESSION H. USE OF DIFFERENTIAL DATA IN ANALYZING INTEGRAL EXPERIMENTS

- H-1. Invited Paper - Neutronic Measurements in Non-Critical Media
C. A. Stevens, Gulf General Atomic
- H-2. The Use of Integral Spectrum Measurements to Improve Neutron Cross Section Data
E. D. Pendlebury, AWRE, Aldermaston
- H-3. Fast Neutron Spectra in Multiplying and Non-Multiplying Media
J. M. Neill, J. L. Russell, Jr., R. A. Moore, C. A. Preskitt, Gulf General Atomic
- H-4. Studies of the Angular Distributions of Fast Neutrons in Depleted Uranium
E. Greenspan, B. K. Malaviya, N. N. Kaushal, E. R. Gaerttner and P. B. Daitch, Rensselaer Polytechnic Institute

- H-5. Adequacy of Fast and Intermediate Cross-Section Data from Neutron Spectrum Measurements in Bulk Media
B. K. Malaviya, E. Greenspan, and E. R. Gaerttner, Rensselaer Polytechnic Institute
- H-6. Invited Paper - Differential Nuclear Data and the Interpretation of Large, Fast Reactor, Critical Experiments
W. G. Davey, Argonne - Idaho
- H-7. Calculations of Fast Critical Experiments Using ENDF/B Data and a Modified ENDF/B Data File
T. A. Pitterle, E. M. Page, and M. Yamamoto, Atomic Power Development Associates
- H-8. A Comparison of Pu-240 Cross Section Evaluations by Calculations of ZPR-III Assemblies 48 and 48B
T. A. Pitterle and M. Yamamoto, Atomic Power Development Associates
- H-9. Integral Test of Capture Cross Sections in the Energy Range 0.1 - 2 MeV
A. Fabry and M. De Coster, C.E.N. - S.C.K., Mol
- H-10. ^{238}Pu Production Predictions from Available Neutron Cross Sections
E. J. Hennelly, W. R. Cornman, and N. P. Baumann, DuPont, Savannah River Laboratory
- H-11. Foil Measurements of Integral Cross Sections of Higher Mass Actinides
R. L. Folger, J. A. Smith, L. C. Brown, R. F. Overman, and H. P. Holcomb, DuPont, Savannah River Laboratory
- H-12. Reactor Cross Sections for ^{242}Pu - ^{252}Cf
J. A. Smith, C. J. Banick, R. L. Folger, H. P. Holcomb, and I. B. Richter, DuPont, Savannah River Laboratory
- H-13. Thermal Reactor Capture Cross Sections of Radioactive Nuclides
R. S. Mowatt and W. H. Walker, Atomic Energy of Canada, Ltd.
- H-14. Abstract Withdrawn
- H-15. Analysis of Integral Experiments on Critical Assemblies and Differential Data
L. N. Usachev and S. M. Zaritski, The Institute of Physics and Power Engineering, Obninsk

H-16. Decay of a Neutron Pulse in a Fast Nonmultiplying
System as an Integral Check on the High Energy
Inelastic Scattering
Tsahi Gozani and P. d'Oultremont, Gulf General
Atomic