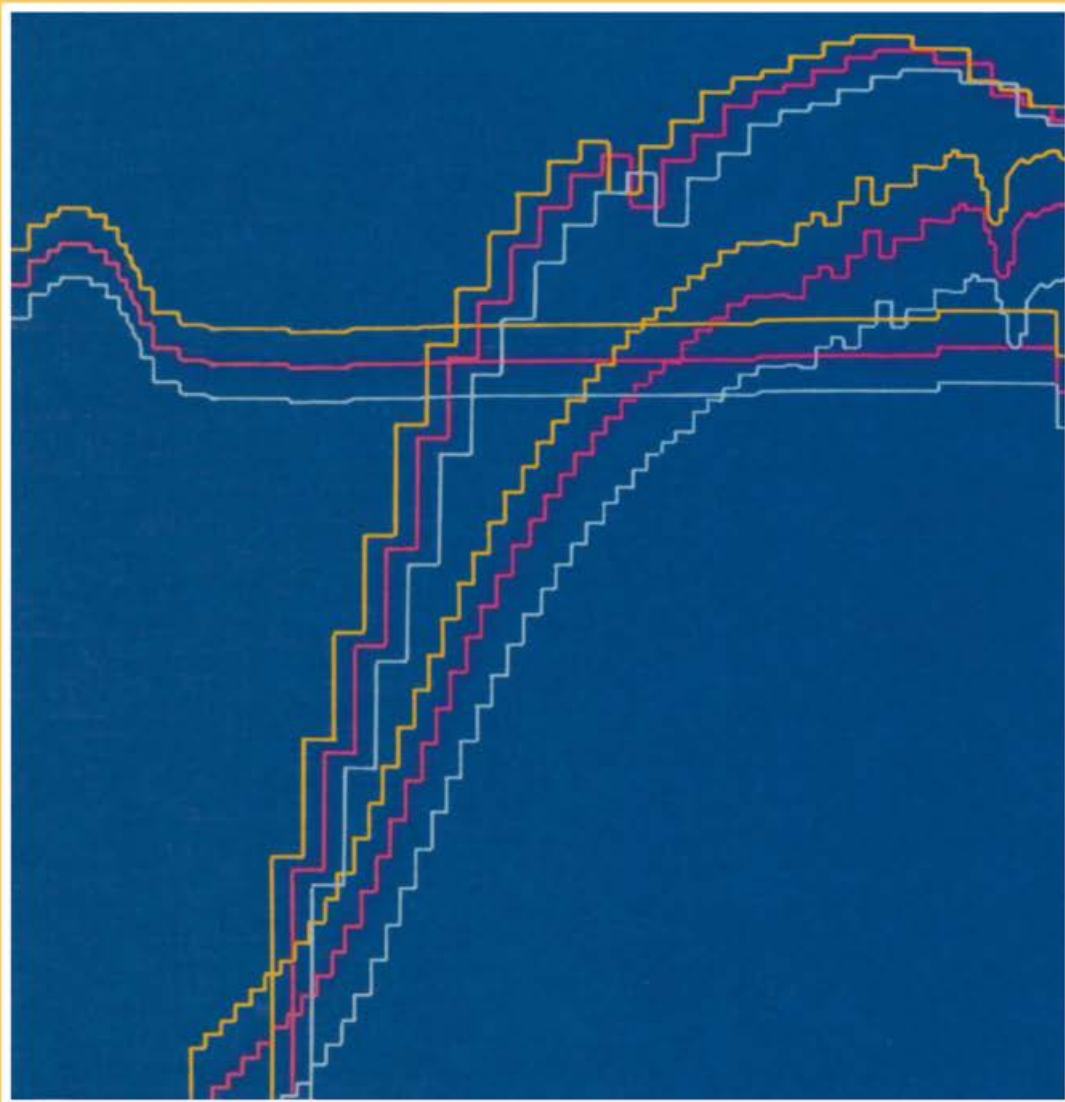


REACTOR DOSIMETRY

**Dosimetry Methods for Fuels, Cladding
and Structural Materials**

Proceedings of the Fifth ASTM-Euratom Symposium
on Reactor Dosimetry, GKSS Research Centre,
Geesthacht, F.R.G., September 24-28, 1984



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Volume 1

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Volume 1

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PREFACE

Ouverts à l'ensemble de la communauté internationale, les symposia ASTM-EURATOM sur la dosimétrie des rayonnements de réacteur traitent de tous les sujets de dosimétrie dans tous les systèmes à neutron: dosimétrie des expériences en réacteur, codes d'ajustement, précision, étalons et intercomparaison, données nucléaires, techniques de mesure, corrélation de dommages radio-induits, échauffement nucléaire, etc.... appliqués principalement aujourd'hui aux problèmes des réacteurs à eau légère, des réacteurs à neutrons rapides et aux systèmes à fusion.

Les travaux en dosimétrie, tout comme l'ensemble du domaine de l'énergie atomique, sont moins caractérisés aujourd'hui par des idées scientifiques franchement nouvelles que par la nécessité d'échange, de coopération, de collaboration, appliqués à la satisfaction de besoins de type industriel ou quasi-industriel.

L'organisation de nos symposia a suivi cette évolution. Nombre de ceux qui y ont participé ont un souvenir ému du 1er symposium à Petten en 1975, qui fut une réussite complète. L'organisation et le dévouement du CCR de Petten y avait beaucoup contribué. Et puis, aussi, c'était un commencement, c'était le premier de nos symposia

Les symposia suivants, alternativement aux USA et en EUROPE, à rythme sensiblement bi-annuel, ont du faire face progressivement à un besoin plus grand d'échange et de discussion par petits groupes, ainsi qu'à afflux croissant de propositions de communications de valeur.

L'organisation a dû s'adapter en conséquence. Ce 5ème symposium ASTM-EURATOM représente, de part sa belle réussite, une étape importante de cette évolution et un garant de la maturation correspondante.

Par la mise en place d'une organisation rigoureuse, en particulier l'appel à des sessions poster bien conçues ainsi que le développement d'ateliers, on a pu faire de cette session du 24 au 28 Septembre 1984 à GEESTHACHT un lieu et un moment privilégié d'échanges multiples, souples, denses, et d'une grande richesse.

Plus de cent personnes ont participé à ces échanges, en provenance des Communautés Européennes, des USA, du Japon, du Moyen-Orient, d'Europe Centrale, etc

Grâce à l'accueil compétent et non mesuré du Centre de GEESTHACHT, le parrainage toujours fidèle du CCR PETTEN, ainsi qu'à tous les organisateurs EURATOM et USA, et les participants, ce 5ème symposium constitue, en 1984 après le succès des commencements à PETTEN en 1975 et l'évolution qui a suivi, l'avènement réussi de la maturité.

J.P.G.

PREFACE

Open to the entire international community, the ASTM-Euratom symposia on reactor radiation dosimetry deal with all aspects of dosimetry in all neutron systems: dosimetry in in-pile experiments, adjustment codes, precision, standards and intercomparison, nuclear data, measuring techniques, correlation of radiation-induced damage, nuclear heating, etc., as mainly applied today to problems associated with light-water reactors, fast reactors and fusion systems.

Dosimetry work, like everything else in the field of atomic energy, is nowadays characterized less by genuinely new scientific ideas than by the need for the exchange of information and for cooperation and joint efforts aimed at satisfying the requirements of industrial-scale or quasi-industrial-scale operations.

This development is reflected in the way that our symposia are organized. Many of those who have participated in them cherish fond memories of the first symposium, held at Petten in 1975, which was a complete success. The organizing ability and the devotion of the JRC-Petten contributed greatly to it. And that was only a beginning, the first of our symposia!

The subsequent symposia, held alternately in the USA and Europe at intervals of approximately two years, had to cope progressively with a greater need for information exchange and for discussion by small groups and with the growing number of proposals for interesting communications.

The symposium organization had to be adapted accordingly. This fifth ASTM-Euratom symposium represents, by reason of its great success, an important stage in this development and is a sure sign of corresponding maturity.

Punctilious organization and, in particular, the use of carefully arranged poster sessions and workshops made the meeting at Geesthacht on 24–28 September 1984 an outstanding occasion for many wide-ranging exchanges of views and for intense and immensely fruitful discussion.

Over 100 persons from the European Community, the USA, Japan, the Middle East, Central Europe and elsewhere participated in these exchanges.

Thanks to the efficiency and boundless hospitality of the Geesthacht Centre, the loyal sponsorship of the JRC-Petten and the efforts of all the Euratom and American organizers, not to mention the enthusiasm of the participants, this fifth symposium, following the successful beginnings at Petten in 1975 and the developments that ensued, marks the advent of full maturity.

J.P.G.

Editorial Remark

Some contributions exceed the allowed maximum number of 8 pages per contribution considerably, without permission of the programme committees. To avoid a delay in the publication of the conference proceedings in-hand the editors have renounced to ask the authors concerned for a reduction of their contributions.

LIST OF CONTENTS - Volume 1

CONFERENCE ORGANIZATION	v
PREFACE	vii

PART I: LWR-PV SURVEILLANCE

AMELIORATION DE LA SURVEILLANCE DE LA CUVE D'UN REACTEUR A EAU PRESSURISEE DE LA S.E.N.A. Bevilacqua, M. Campani, C. Dupont, R. Lloret, J.-C. Nimal, M. Poitou, R. Riehl	3
PRESSURE VESSEL DOSIMETRY AT U.S. PWR PLANTS C.O. Cogburn, J.G. Williams; N. Tsoulfanidis	11
IMPROVEMENT OF LWR PRESSURE VESSEL STEEL EMBRITTEMENT SURVEILLANCE: 1982-1983 PROGRESS REPORT ON BELGIAN ACTIVITIES IN COOPERATION WITH THE USNRC AND OTHER R&D PROGRAMS A. Fabry, J. Debrue, L. Leenders, F. Motte, G. Minsart, P. Gubel, R. Menil, P. D'hondt, G. and S. De Leeuw-Gierts, H. Tourwé, J. Van de Velde, Ph. Van Asbroeck	21
UTILITY PERSPECTIVES RELATED TO PRESSURE VESSEL AND SUPPORT STRUCTURE SURVEILLANCE S.P. Grant	39
UNCERTAINTY CONSIDERATIONS IN DEVELOPMENT AND APPLICATION OF CHARPY TREND CURVE FORMULAS G.L. Guthrie	47
BABCOCK & WILCOX REACTOR VESSEL SURVEILLANCE SERVICE ACTIVITIES L.A. Hassler, A.L. Lowe, Jr.	61
NOTCH DUCTILITY AND TENSILE STRENGTH DETERMINATIONS FOR REFERENCE STEELS IN PSF SIMULATED SURVEILLANCE AND THROUGH-WALL IRRADIATION CAPSULES J.R. Hawthorne, B.H. Menke	69

TRANSPORT CALCULATION OF NEUTRON FLUX AND SPECTRUM IN SURVEILLANCE CAPSULES AND PRESSURE VESSEL OF A PWR A. Kodeli, M. Najzer, I. Remec	79
CALCULATED SPECTRAL FLUENCES AND DOSIMETER ACTIVITIES FOR THE METALLURGICAL BLIND TEST IRRADIATIONS AT THE ORR-PSF R.E. Maerker, B.A. Worley	87
BATTELLE'S COLUMBUS LABORATORIES REACTOR VESSEL SURVEILLANCE SERVICE ACTIVITIES M.P. Manahan, A.R. Rosenfield, C.W. Marschall, M.P. Landow	95
TREND CURVE EXPOSURE PARAMETER DATA DEVELOPMENT AND TESTING W.N. McElroy, G.L. Guthrie, R.L. Simons; E.P. Lippincott, R. Gold; S.L. Anderson	113
EFFECT OF THERMAL POWER AVERAGING METHOD ON THE DETERMINATION OF NEUTRON FLUENCE FOR LWR-PV SURVEILLANCE E.B. Norris	137
DOSIMETRY MEASUREMENTS AND CALCULATION OF FAST NEUTRON FLUX IN THE REACTOR CAVITY OF A 3-LOOP PRESSURIZED WATER REACTOR D. Rombouts, M.L. Perez-Griffo	145
STANDARDIZED PHYSICS-DOSIMETRY FOR US PRESSURE VESSEL CAVITY SURVEILLANCE PROGRAMS F.H. Ruddy, W.N. McElroy, E.P. Lippincott, L.S. Kellogg, R. Gold, J.H. Roberts, C.C. Preston; J.A. Grundl, E.D. McGarry; H. Farrar IV, B.M. Oliver; S.L. Anderson	153
RE-EVALUATION OF THE PHYSICS-DOSIMETRY FROM PWR AND BWR REACTOR PRESSURE VESSEL SURVEILLANCE PROGRAMS R.L. Simons, L.S. Kellogg, E.P. Lippincott, W.N. McElroy	165
ORNL EVALUATION OF THE ORR-PSF METALLURGICAL EXPERIMENT AND "BLIND TEST" F.W. Stallmann	175
STATUS OF REGULATORY ISSUES AND RESEARCH IN LIGHT WATER REACTOR SURVEILLANCE DOSIMETRY IN THE U.S. A. Taboada, P.N. Randall, C.Z. Serpan, Jr.	185

PART II: FAST REACTORS

- SUPER PHENIX. SURVEILLANCE DES STRUCTURES
SOUIMISES A IRRADIATION PROGRAMME DE MESURES ET
CALCULS NEUTRONIQUES
J.C. Cabrillat, G. Arnaud, D. Calamand, D. Maire,
G. Manent, A.A. Tavassoli 197
- FLUENCE, DOSIMETRY, AND STEEL-DPA RATES IN EBR-II
D. Meneghetti, D.A. Kucera 209
- TRITIUM PRODUCTION FROM THE $^{10}\text{B}(n,t)2\alpha$ REACTION IN
FFTF
B.M. Oliver, H. Farrar IV; J.A. Rawlins, D.W. Wootan 217
- RECENT JAPANESE ACTIVITIES IN THE FAST BREEDER
REACTOR PROGRAM AND REACTOR DOSIMETRY WORKS
A. Sekiguchi, Y. Matsuno, I. Kimura, T. Kodaira,
H. Susukida, M. Nakazawa 225

PART III: FUSION AND SPALLATION

- NICKEL SAMPLE IRRADIATION IN THE BR2 REACTOR AT
MOL IN THE FRAMEWORK OF THE OPTIMIZATION STUDY
OF THE TIME-DEPENDENT HELIUM PRODUCTION/DAMAGE
RATIO FOR IN-PILE FUSION MATERIALS TESTING
Ch. De Raedt, P. D'hondt 235
- REFERENCE SPECTRUM OF $d(13)\text{-Be}$ AT THE INPE
CYCLOTRON
I. Garlea, Cr. Miron-Garlea, F. Tancu, S. Dima,
M. Macovei 245
- RECENT DEVELOPMENTS IN NEUTRON DOSIMETRY AND
DAMAGE CALCULATIONS FOR FUSION MATERIALS
IRRADIATIONS
L.R. Greenwood, R.K. Smither 251
- MATERIALS IRRADIATION TESTING IN SUPPORT OF THE
EUROPEAN FUSION PROGRAMME
D.R. Harries, J.-M. Dupouy 263
- INVESTIGATION OF THE NEUTRON ENERGY TRANSFER
BY NUCLEAR CASCADE REACTIONS FOR IMPROVING
NEUTRON DAMAGE DATA UP TO 40 MeV
G. Hehn, M. Mattes, G. Prillinger, M.K. Abu Assy;
W. Matthes 273

REMOVAL CROSS-SECTION TECHNIQUE FOR KERMA ESTIMATION OF 14 MeV NEUTRONS PASSED THROUGH SHIELDING LAYERS J. Jordanova, K. Ilieva, V. Christov, G. Voykov	281
THE IMPORTANCE OF ANISOTROPIC SCATTERING IN HIGH ENERGY NEUTRON TRANSPORT PROBLEMS G. Prillinger, M. Mattes	287
FUSION MATERIALS RESEARCH AND NEUTRON ACTIVATION T.C. Reuther	295
DELAYED NEUTRON COUNTING SYSTEM FOR JET PLASMA NEUTRON YIELDS DIAGNOSTICS H. Tourwé, A. Fabry, P. D'hondt	309

PART IV: TECHNIQUES

USE OF NIOBIUM FOR ACCURATE RELATIVE FAST NEUTRON FLUENCE MEASUREMENTS AT THE PRESSURE VESSEL IN A VVER-440 NPP B. Bärs, H. Karnani	319
NIOBIUM NEUTRON FLUENCE DOSIMETER MEASUREMENTS R.J. Gehrke, J.W. Rogers, J.D. Baker	327
CALCULATION OF THE THERMAL NEUTRON FLUX PERTURBATION FACTOR FOR FOIL DETECTORS IN VARIOUS MEDIA USING THE CODE PERTURB.D M. C. Freitas, E. Martinho	337
NONDESTRUCTIVE DETERMINATION OF REACTOR PRESSURE VESSEL NEUTRON EXPOSURE BY CONTINUOUS GAMMA-RAY SPECTROMETRY R. Gold, W.N. McElroy, B.J. Kaiser, J.P. McNeece	345
ADVANCES IN CONTINUOUS GAMMA-RAY SPECTROMETRY AND APPLICATIONS R. Gold, J.P. McNeece, B.J. Kaiser	357
THE USE OF BERYLLIUM OXIDE THERMOLUMINESCENCE DOSEMETERS FOR MEASURING GAMMA EXPOSURE RATES P.J.H. Heffer, T.A. Lewis	373

FAST NEUTRON DOSIMETRY BY MEANS OF THE SCRAPING SAMPLING METHOD F. Hegedüs	381
MESURE DES DEBITS DE DOSE D'IRRADIATION IONISANTE EN ATMOSPHERE SURCHAUFFEE S. Lorrain, G. Portal; G. Valladas	391
SPECIAL CONSIDERATIONS FOR LWR NEUTRON DOSIMETRY EXPERIMENTS G.C. Martin, Jr., C.O. Cogburn	399
CHARACTERIZATION OF THE IMPERIAL COLLEGE REFERENCE GAMMA RAY FIELD J.A. Mason, A.N. Asfar, T.C. Jones; A.M. Fabry, R. Menil	407
IMPROVED MICROCALORIMETRY FOR RADIATION ABSORBED DOSE MEASUREMENTS J.A. Mason, A.N. Asfar, P.J. Grant	415
APPLICATION OF THE MULTI-COMPONENT WIRE ACTIVATION DETECTOR SYSTEM FOR IN-CORE NEUTRON SPECTROMETRY AT A NPS H.-C. Mehner, S. Nagel, M. Schöne, I. Stephan, U. Hagemann; U. Pieper, W. Gehrig	425
DATA ACQUISITION AND CONTROL SYSTEM FOR THE K _{1C} -HSST EXPERIMENTS AT THE ORR L.F. Miller, R.W. Hobbs	433
USE OF STAINLESS STEEL FLUX MONITORS IN PRESSURE VESSEL SURVEILLANCE T.H. Newton, Jr., C.O. Cogburn, J.G. Williams	441
SIMULTANEOUS APPLICATION OF ACTIVATION AND DAMAGE DETECTORS H.J. Nolthenius, W.P. Voorbraak, W.L. Zijp; A. Alberman, M. Benoist, M. Thierry	449
THE S ³² (n,p)P ³² THRESHOLD DETECTOR AND ITS APPLICATION FOR FAST NEUTRON DOSIMETRY (FAST REACTORS AND FUSION REACTORS) G. Perlini, H. Rief; M.D. Carter, M.F. Murphy	457
PUISSANCE DEPOSEE DANS UN DISPOSITIF COMPLEXE PAR LES GAMMAS DE REACTEUR D'ESSAIS. EXPERIENCES ET CALCULS REALISES A SILOE H. Petitcolas; G. Cosoli; A. Besson; A. Bevilacqua	465

SOLID-STATE TRACK RECORDER NEUTRON DOSIMETRY IN LIGHT WATER REACTOR PRESSURE VESSEL SURVEILLANCE MOCKUPS F.H. Ruddy, J.H. Roberts, R. Gold, C.C. Preston	473
A EUROPEAN COMMUNITY SOURCE OF REFERENCE MATERIALS FOR NEUTRON METROLOGY REQUIREMENTS J. Van Audenhove, J. Pauwels; A.J. Fudge	487
NIOBIUM-ALUMINIUM FOILS AS MONITORS FOR ROUTINE MEASUREMENT OF FAST NEUTRONS P. Wille	497
RECENT DEVELOPMENTS IN VERY HIGH-COUNT-RATE GAMMA SPECTROSCOPY W.H. Zimmer	505
INTERNATIONAL COMPARISON OF INTERPOLATION PROCEDURES FOR THE EFFICIENCY OF GERMANIUM GAMMA-RAY SPECTROMETERS (INTERIM REPORT ON THE GAM-83 EXERCISE) W.L. Zijp, A.N. Polle, H.J. Nolthenius; K. Debertin	513

LIST OF CONTENTS - Volume 2

PART V: DAMAGE MODELS, PHYSICS, DOSIMETRY AND MATERIALS

EMBRITTEMENT PROFILE IN THE FRACTURE PLANE OF IRRADIATED CT100 SPECIMENS J. Ahlf, D. Bellmann; G. Prillinger	531
THE EFFECT OF DAMAGE RATES AND DIFFERENT KINDS OF IRRADIATION ON THE DUCTILITY OF AMORPHOUS Fe ₄₀ Ni ₄₀ B ₂₀ R. Gerling, F.P. Schimansky, P. Wille, R. Wagner	539
DEFECT MICROSTRUCTURE AND IRRADIATION STRENGTHENING IN Fe/Cu ALLOYS AND Cu BEARING PRESSURE VESSEL STEELS R. Wagner, F. Frisius, R. Kampmann, P.A. Beaven	549
THE USE OF SILICON TRANSISTORS AS DAMAGE MONITORS IN REACTOR NEUTRON METROLOGY J.G. Williams, C.F. Hsun	561

PART VI: NEUTRON AND GAMMA SPECTRUM DETERMINATION

CALCULATION OF THE ²⁵² Cf NEUTRON SLOWING DOWN SPECTRUM AND REACTION RATE RATIOS IN MODERATING MEDIA D. Azimi-Garakani, M. Rahbar, N. Fouladi-Oskoui	571
EXPERIMENTAL VALIDATION OF NEUTRON SPECTRA CALCULATED VIA TRANSPORT CODES E. Borioli, G. Sandrelli; A. Cesana, V. Sangiust, M. Terrani	579
NEUTRON AND GAMMA RAY FLUX CALCULATIONS FOR THE VENUS PWR ENGINEERING MOCKUP A.H. Fero	589
CHARACTERIZATION OF FUEL DISTRIBUTION IN THE THREE MILE ISLAND UNIT 2 (TMI-2) REACTOR SYSTEM BY NEUTRON AND GAMMA-RAY DOSIMETRY R. Gold, J.H. Roberts, F.H. Ruddy, C.C. Preston, J.P. McNeece, B.J. Kaiser, W.N. McElroy	611

A STUDY OF THE EMBRITTLEMENT OF REACTOR VESSEL STEEL SUPPORTS W.C. Hopkins; W.L. Grove	621
EVALUATION OF NEUTRON EXPOSURE CONDITIONS FOR THE BUFFALO REACTOR E.P. Lippincott, L.S. Kellogg, W.N. McElroy; C.A. Baldwin	629
RECENT PROGRESS AND DEVELOPMENTS IN LWR-PV CALCULATIONAL METHODOLGY R.E. Maerker, B.L. Broadhead, M.L. Williams	639
A NEW ADJUSTMENT CODE BASED ON THE BAYES' THEORY COMBINED WITH THE MONTE-CARLO TECHNIQUE M. Nakazawa, N. Ueda, T. Taniguchi, A. Sekiguchi	649
EVALUATION OF UNCERTAINTIES OF ²³⁵ U FISSION SPECTRUM M. Petilli; D.M. Gilliam	657
EVALUATION OF GAMMA-HEATING RATES IN THE JMTR CORE (BENCHMARK CALCULATION) K. Sakurai, N. Yamano	667
LSL-M1 AND LSL-M2: TWO EXTENSIONS OF THE LSL ADJUSTMENT PROCEDURE FOR INCLUDING MULTIPLE SPECTRUM LOCATIONS F.W. Stallmann	681
SYSTEMATIC STUDY ON SPECTRAL EFFECTS IN THE ADJUSTMENT CALCULATIONS USING THE NEUPAC-83 CODE T. Taniguchi, N. Ueda, M. Nakazawa, A. Sekiguchi	685
NEUTRON ENERGY SPECTRUM CALCULATIONS IN THREE PWR N. Tsoufanidis, D.R. Edwards, C. Abou-Ghantous, K. Hock, F. Yin	693
ON THE CONVERSION OF COARSE GROUP SPECTRA TO FINE GROUP SPECTRA (USING A CONTINUITY PRINCIPLE) J. Végh	703

CALCULATION OF THE NEUTRON SOURCE DISTRIBUTION IN THE VENUS PWR MOCKUP EXPERIMENT M.L. Williams, P. Morakinyo; F.B.K. Kam; L. Leenders, G. Minsart, A. Fabry	711
NEW ASPECTS IN LEAST SQUARES ADJUSTMENT METHODS E.M. Zsolnay, H.J. Nolthenius, E.J. Szondi, W.L. Zijp	719
PLANS FOR A REAL-84 EXERCISE W.L. Zijp, E.M. Zsolnay, E.J. Szondi, H.J. Nolthenius, D.E. Cullen	729
PART VII: BENCHMARKS, REFERENCE AND STANDARD SPECTRA	
A COMPARATIVE ANALYSIS OF THE OAK RIDGE PCA AND NESDIP PCA 'REPLICA' EXPERIMENTS USING THE LONDON ADJUSTMENT TECHNIQUE M. Austin, A. Dolan, A.F. Thomas	739
THE NESSUS REFERENCE FIELD IN THE NESTOR REACTOR AT WINFRITH M.D. Carter, I.J. Curl, M.F. Murphy, A. Packwood	751
COMPARISONS OF THEORETICAL AND EXPERIMENTAL NEUTRON SPECTRA, $^{115}\text{In}(n,n')$ AND FISSION RATES, IN THE CENTRE OF THREE SPHERICAL NATURAL URANIUM AND IRON SHELL CONFIGURATIONS, LOCATED AT BR1 G. De Leeuw-Gierts, S. De Leeuw; D.M. Gilliam	761
VENUS PWR ENGINEERING MOCK-UP: CORE QUALIFICATION, NEUTRON AND GAMMA FIELD CHARACTERIZATION A. Fabry, L. Leenders, R. Menil, G. Minsart, H. Tourwé, S. De Leeuw, P. De Regge, J. Debrue; E.D. McGarry; T.A. Lewis; C. Barr-Wells, M. Austin	771
EVALUATION OF NEUTRON FLUX IN THE POOL CRITICAL ASSEMBLY E.P. Lippincott, F.H. Ruddy, R. Gold, L.S. Kellogg, J.H. Roberts	783
THE U.S. U-235 FISSION SPECTRUM STANDARD NEUTRON FIELD REVISITED E.D. McGarry, C.M. Eisenhauer, D.M. Gilliam, J.A. Grundl, G.P. Lamaze	791

RECENT EXPERIMENTS ON Cf-252 SPECTRUM-AVERAGED NEUTRON CROSS SECTIONS W. Mannhart	801
SPECTRUM-AVERAGED NEUTRON CROSS SECTIONS MEASURED IN THE U-235 FISSION-NEUTRON FIELD IN MOL W. Mannhart	813
UNFOLDED ANO-1 FLUXES USING THE LEPRICON METHODOLOGY J.J. Wagschal; R.E. Maerker, B.L. Broadhead, M.L. Williams	827

PART VIII: NUCLEAR DATA

CONSISTENCY CHECK OF IRON AND SODIUM CROSS- SECTIONS WITH INTEGRAL BENCHMARK EXPERIMENTS USING A LARGE AMOUNT OF EXPERIMENTAL INFORMATION R.-D. Bächle, G. Hehn, G. Pfister; G. Perlini, W. Matthes	841
BENCHMARK EXPERIMENT FOR NEUTRON TRANSPORT IN NICKEL J. Burian, B. Janský, M. Marek, J. Rataj	849
CONSISTENCY OF CROSS-SECTION DATA IN INTEGRAL EXPERIMENTS A. Cesana, V. Sangiust, M. Terrani; G. Sandrelli	857
CROSS SECTION MEASUREMENTS IN THE ²³⁵ U FISSION SPECTRUM NEUTRON FIELD D.M. Gilliam, J.A. Grundl, G.P. Lamaze, E.D. McGarry; A. Fabry	867
SPECTRUM-INTEGRATED HELIUM GENERATION CROSS SECTIONS FOR ⁶ Li AND ¹⁰ B IN THE INTERMEDIATE-ENERGY STANDARD NEUTRON FIELD B.M. Oliver, H. Farrar IV; D.M. Gilliam; E.P. Lippincott	877

PART IX: GENERAL INTEREST

BOUCLE 4 CRAYONS COMBUSTIBLES EAU LEGERE IRRADIEE EN PERIPHERIE DU REACTEUR OSIRIS. TECHNIQUES DE DOSIMETRIE MISES EN OEUVRE A. Alberman, C. Morin, G. Simonet	889
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<p>QUALIFICATION DANS MELUSINE DE L'EVOLUTION NEUTRONIQUE DE COMBUSTIBLES DE LA FILIERE A EAU LEGERE D. Beretz, J. Garcin, G. Ducros, D. Vanhumbeeck; P. Chaucheprat</p>	897
<p>COMPARISON OF MEASURED AND CALCULATED REACTION RATES FROM D₂O-MODERATED ²⁵²Cf NEUTRONS W. Brandon, C. Cogburn, R. Culp, R. Hamblen, J. Williams</p>	905
<p>DOSIMETRY WORK AND CALCULATIONS IN CONNECTION WITH THE IRRADIATION OF LARGE DEVICES IN THE HIGH FLUX MATERIALS TESTING REACTOR BR2: FUEL BURN-UP ASPECTS IN CORRELATION WITH THE OTHER DOSIMETRY DATA J. Debrue, Ch. De Raedt, P. De Regge, L. Leenders, H. Tourwé, A. Verwimp; H. Farrar IV, B.M. Oliver</p>	913
<p>USE OF THRESHOLD ACTIVATION DETECTORS TO OBTAIN NEUTRON KERMA FOR BIOLOGICAL IRRADIATIONS C. Eisenhauer, J. Grundl; C. Cassapakis, V. Verbinski</p>	921
<p>STATUS OF RECOVERY - THREE MILE ISLAND UNIT 2: REACTOR HEAD REMOVAL R.L. Freerman, W.C. Hopkins, R.L. Rider</p>	929
<p>ON THE UTILIZATION OF ΣΣ - ITN BENCHMARK FIELD I. Garlea, C. Miron, C. Roth, D. Dobrea, T. Musat</p>	937
<p>NEUTRON AND GAMMA RAY DOSE STUDIES IN CAGR INSTRUMENTATION AND FUEL COMPONENTS P.J.H. Heffer</p>	943
<p>DEVELOPMENTS IN HEALTH PHYSICS DOSIMETRY J.R.A. Lakey, R.E. Alexander</p>	951
<p>RADIATION FIELD ASSOCIATED WITH HIROSHIMA AND NAGASAKI W.E. Loewe</p>	959
<p>THE ACTIVITY OF THE CZECHOSLOVAK WORKING GROUP ON REACTOR DOSIMETRY IN THE PERIOD FROM 1980 TO 1983 B. Osmera, J. Petr, O. Erben, K. Dach; M. Holman, P. Marík, F. Vychytil, M. Brumovský</p>	967

NEUTRONIC MODELLING OF THE HARWELL MTR'S: SOME RECENT PROBLEMS N.P. Taylor	975
A COMPREHENSIVE APPROACH TO THE PROBLEMS OF UNCERTAINTY ANALYSIS IN THE ASSESSMENT OF IRRADIATED MATERIALS PERFORMANCE A.F. Thomas, M.R. Brown, A. Dolan	983
 PART X: CHAIRMEN'S REPORTS ON WORKSHOPS AND HIGHLIGHTS OF THE SYMPOSIUM 	
WORKSHOP: LWR-PV PHYSICS, DOSIMETRY, DAMAGE CORRELATION AND MATERIALS PROBLEM A. Fabry, A. Lowe, Jr.	999
ATELIER: PHYSIQUE, DOSIMETRIE ET PROBLEMES DES MATERIAUX EN REACTEURS RAPIDES J.C. Cabrillat. A. Sekiguchi	1001
WORKSHOP: LOW THRESHOLD REACTIONS C. Eisenhauer, F. Hegedüs	1003
WORKSHOP: DOSIMETRY FOR HIGH-ENERGY NEUTRONS R. Dierckx, L.R. Greenwood	1005
WORKSHOP: MODELLING OF SMALL REACTOR CORES S. Anderson, S.B. Wright	1007
WORKSHOP: INTERLABORATORY INTERCOMPARISON P. D'hondt, W.H. Zimmer	1009
WORKSHOP: ADJUSTMENT PROBLEMS F.W. Stallmann, W.L. Zijp	1011
Annex 1: Report on the Meeting of the ASTM E.10.05.01 Task Group on "Uncertainty Analysis and Computational Procedures" F.W. Stallmann	1013
Annex 2: Report on the IAEA Consultants' Meeting on the REAL-84 exercise W.L. Zijp	1015
WORKSHOP: GAMMA DOSIMETRY AND CALORIMETRY R. Gold, R. Lloret	1017

WORKSHOP: DAMAGE MONITORS	
A.J. Fudge, J.G. Williams	1019
HIGHLIGHTS OF THE SYMPOSIUM	
R. Dierckx, W.N. McElroy	1023
CONFERENCE PROGRAMME SUMMARY	1027
LIST OF CHAIRMEN	1028
LIST OF PARTICIPANTS	1030
AUTHORS' INDEX	1038