



RSIC Newsletter

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No. 345

August 1993

A man cannot leave a better legacy to the world than a well-educated family.—Thomas Scott

Eighth International Conference on Radiation Shielding (ICRS8) Update

Additional Cooperating Organizations

The following additional professional societies have agreed to cooperate on the ICRS8:

Atomic Energy Society of Japan
Canadian Nuclear Society
Sociedad Nuclear Mexicana
Health Physics Society, United States

In addition, the following international organizations have agreed to cooperate:

OECD NEA Data Bank, Issy-les-Moulineaux, France
International Atomic Energy Agency, Vienna, Austria

For additional information concerning meeting attendance, potential participants from IAEA member countries may wish to contact:

Dr. S. Ganesan
Nuclear Data Section
International Atomic Energy Agency
Wagramerstrasse 5
P.O. Box 100
A-1400 Vienna
Austria

Summary Deadline Approaches

The official deadline for submitting summaries is **August 31, 1993** (see April 1993 *RSIC Newsletter* for the call for papers). The technical program committee will meet September 20–21, 1993, at the Arlington Hilton, Arlington, Texas, for the paper review. If you have not yet submitted a summary, I would encourage you to do so by September 15. It may be possible that summaries received by that time can be accommodated. For those of you who may have had problems with email, the address for Technical Program Chairman Nolan Hertel is nolan.hertel@me.gatech.edu (some publicity omitted the periods).

Robert W. Roussin, International Liaison, ICRS8

EMAIL REVISTED

[It's been two years since this message appeared in the *RSIC Newsletter*. The time has come to remind our friends of the need to identify themselves when making an inquiry.]

Our user/contributors have several options for contacting RSIC. Among them are electronic mail networks and Telex services.

We need your help. By the time many of the messages have passed through several gateways the identity of the original sender is buried among messages from these networks (see example 1, the names and other data in the examples used have been changed to protect the "innocent"). When we receive messages from individuals new to RSIC a response by mail may be required. Unfortunately, we have to make an educated guess about where the message originated. Our response may be delayed because the address is incomplete.

Please send your electronic mail as you would a letter with the name and address of the sender included with the message as in example 2. Clearly identify the address and, if you expect a reply by electronic mail, clearly identify your email address. You might consider including your phone/Fax number as well. If your message originates outside the United States, please include the country in the address. I have a file with all the requested information which I try to remember to import for each non-local message.

I have focussed on email because that seems to be the trend right now. However, this request applies to telex and fax messages as well.

Alice F. Rice, editor

```
Received: from rip.edu (128.113.1.7) by epic.epm.ornl.gov (tcp 1.00, AOS/VS 7.68)
  id AB00031; Mon, 17 Jun 91 17:07:50 edt
Received: from sub.aix.rip.edu (aix01.aix.rip.edu) by rip.edu (4.1/SMHUB25);
  id AA27708; Mon, 17 Jun 91 17:08:46 EDT for pdc@epic.epm.ornl.gov
.....
```

Hello!

I want to get CCC-546/MAACS computer code(ibm RS/6000 version).
 We have a IBM RS/6000 model 320 running AIX 3.1.
 How can I obtain a copy of that code?
 Thanks in advance.

 e-mail : csgib@rip.edu

Example 1. Where did this message come from and who sent it?

```
From: Charles Kellerman (Bitnet CTK5907@TAMVENUS)
  Gabriel Horn (Bitnet G0R4990@TAMVENUS)
```

```
  Department of Nuclear Engineering
  Texas A&M University
  College Station, TX 77843-3133
```

We are requesting information on the source code for the program TWODENT. We are interested in acquiring the code and need to know what machines and operating systems it is available for.

Your response will be greatly appreciated.

Thankyou.

Example 2. Note that a subject line is included. The sender's name is followed by a bitnet address.

CHANGES TO THE COMPUTER CODE COLLECTION

Two existing codes packages were replaced with newly frozen versions. One change resulted from a foreign contribution.

CCC-563/PSU-LEOPARD/RBI 90.1

The Ruder Boskovic Institute, Zagreb, Yugoslavia, through the OECD NEA Data Bank, Issy-les-Moulineaux, contributed a newly frozen version of this spectrum-dependent non-spatial depletion code system. PSU-LEOPARD is a Penn State University modification of CCC-343/LEOPARD, which is a unit cell code for generating two and/or four group constants for PWR fuel assemblies. PSU-LEOPARD is capable of fitting the group constants as polynomials in burnup and soluble boron concentration, providing easily accessible data for in-core fuel management calculations. This new release PSU-LEOPARD/RBI, Version 90.1, includes a restart option, numerically more stable polynomial fit, PC timing routines, and a few other new options. The executable files included in the package were created on an 80386 personal computer with 80387 math coprocessor under MS-DOS 4.01 using the Microsoft Fortran 5.0 compiler. The package is transmitted on one DS/HD 5.25-in. (1.2 MB) diskette in DOS compressed format. Reference: RBI-LP-N-6/90 (1990). Fortran 77; IBM PC (C00563/IBMPC/01).

PSR-333/CHENDF 6.8

The National Nuclear Data Center at Brookhaven National Laboratory, Upton, New York,

ALERT to Users of PSR-171/NJOY91.76 August 16, 1993

The developer of NJOY91.76 at Los Alamos National Laboratory has requested that we alert users to some problems in this release which are related to gamma-ray production and to fission-matrix processing. Some errors have been found in the case where $IG2LO=0$. Distribution of this release is being suspended. Updates to correct these problems are currently being tested. A new version will soon be released and announced in the RSIC Newsletter.

contributed a newly frozen version of these utility codes written to process ENDF-5 and ENDF-6 formatted files including all formats approved up to and including the May 1990 CSEWG meeting except for the Generalized R-Matrix resonance region format and the generalized format for covariances (file 30). The programs are written in ANSI-77 Fortran and should operate on any computer with sufficient memory and a Fortran compiler conforming to this standard. The SETMDC program is included to convert the source codes from one mode to the other. The standard batch mode version is indicated by "ANS" code and the interactive version by "VAX" code. One DS/HD 5.25-in. (1.2 MB) diskette written in DOS format is used for transmitting the package. References: Informal report (1992). Fortran 77; Vax family and IBM (P00333/MNYCP/00).

CHANGES TO THE DATA LIBRARY COLLECTION

Four new data libraries were added to the collection. Three additions resulted from foreign contributions.

DLC-166/PNESD

The International Atomic Energy Agency, Vienna, through the OECD NEA Data Bank, Issy-les-Moulineaux, France, contributed this numerical

data and related bibliography for the differential elastic cross sections, polarization and integral nonelastic cross sections for protons of 3 MeV to 1000 MeV incident on natural elements and their

isotopes. The data for 80 nuclides ranging from 1-H-2 through 92-U-Nat are distributed on one DS/HD 3.5-in. (1.44 MB) diskette in DOS format. Reference: IAEA-NDS-22 (Dec. 1979). PC 386 (D00166/PC386/00).

DLC-168/LA100

Los Alamos National Laboratory contributed two transport libraries for proton- and neutron-induced reactions for H-1, Be-9, C-12, O-16, Al-27, Si-28, Fe, W, and U-238. LA100 specifies the production cross sections and energy-angle correlated spectra of emitted neutrons, protons, alpha-particles, photons, and other significant charged particles. The data are based on nuclear theory/model calculations with parameterizations obtained by matching calculations with experimental data, mainly using the GNASH statistical/pre-equilibrium/fission theory code (PSR-125). The data are distributed as ASCII card images in ENDF-6 format. Two DS/HD 5.25-in. (1.2 MB) diskettes written in DOS compressed format are used to transmit the package. References: LA-11753-MS (July 1990). All computers (D00168/ALLCP/00).

DLC-169/ACTIV-87

The International Atomic Energy Agency contributed this compilation of fast neutron induced activation reaction cross-sections, covering energies from threshold to 20 MeV. The following libraries and individual files of evaluated neutron cross-

section data were used for the selection of these activation data: the BOSPOR library, the activation file of the Evaluated Nuclear Data Library, the ENDF/B-V activation file, IRDF-82, and individual evaluations carried out under various IAEA research contracts. The file of selected reactions contains 206 evaluated cross-section curves of the (n,2n), (n,p), and (n,alpha) reactions which lead to radioactive products and may be used in many practical applications of neutron activation analysis. The data are distributed as ASCII card images in ENDF-5 format on one DS/HD 5.25-in. diskette in DOS format. Reference: IAEA-NDS-96 (October 1989). All computers (D00169/ALLCP/00).

DLC-170/ACTIV-FUS/INT

The International Atomic Energy Agency contributed this data library of neutron activation data for fusion reactor applications. This activation sublibrary of FENDL contains ENDF-6 formatted evaluated cross-section data for 372 neutron induced reactions for 150 target isotopes for neutron energies up to 20 MeV. The evaluated data were taken from REAC-2, REAC-ECN-5, BOSPOR-86, SINCROACT, ADL-90, ENDF/B-IV, JENDL-3 and BROND libraries. The data are available on 9-track magnetic tape in fixed block format or on either 8 mm or DC 6150 cartridge tape in tar format. Reference: IAEA-NDS-148 (November 1991). All computers (D00170/ALLCP/00).

Visitors to RSIC

During the month the following persons came for an orientation visit and/or to use RSIC facilities: *Enzo Menapace*, ENEA, Bologna, Italy; *Richard K. Disney*, Greenburg, Pennsylvania; *Archie D. Wilcox*, Mohr and Associates, Richland, Washington; *Moshe Goldstein*, Nuclear Research Center-Negev; and *Masatoshi Tsuji*, Toyo Engineering Corp., Chiba, Japan.

CONFERENCES, COURSES, SYMPOSIA

RSIC attempts to keep its users/contributors advised of conferences, courses, and symposia in the field of radiation protection, transport, and shielding through this section of the newsletter. Should you be involved in the planning/organization of such events, feel free to send your announcements and calls for papers to RSIC.

Fourth International Workshop on Fusion Neutronics

The *Fourth International Workshop on Fusion Neutronics* will be held October 20–21, 1993, on the University of California-Los Angeles (UCLA) campus. Previous workshops were held at Karlsruhe (June 1991), Los Angeles (June 1992), and Frascati (September 1992). The workshop covers all possible areas of concern in the field of neutronics including experiments, code development and data libraries, tritium breeding, nuclear heating, radioactivity, bulk shielding, and streaming.

The workshop will consist of three parts: 1) presentations reporting on results of ongoing work, 2) presentations on near term planned activities, and 3) discussions of issues and required R&D. Presentations summarizing final results from the US/JAERI Collaborative Program on Fusion Neutronics will be included in the workshop.

Since ITER is presently a major focus of the world program, we have invited two speakers from the ITER JCT (Dr. Shatalov and Dr. Gohar) to provide the participants with overview of ITER design and ITER neutronics issues and R&D. Furthermore, we hope to devote a good part of the discussions to ITER-related problems.

The workshop will be followed by an IEA meeting, chaired by Dr. H. Maekawa from JAERI, on October 22, 1993, to be held at UCLA. He will send separate information on the meeting but asked me to inform you that participants in the October 20–21 meeting are invited to attend the IEA meeting on October 22.

Please let me know as soon as possible on 1) whether you plan to attend the workshop, 2) whether you or one of your colleagues plans to make a presentation (please provide us with a preliminary title).

Dr. Mahmoud Youssef has agreed to serve as the Secretary for the Fourth International Workshop. Please address all responses and communications to him:

Dr. Mahmoud Youssef
43-133 Engineering IV
School of Engineering and Applied Science
University of California, Los Angeles
Los Angeles, CA 90024-1597
Telephone: (310) 825-2879
Fax: (310) 825-2599
E-mail: youssef@fusion.ucla.edu

We look forward to a productive workshop. We appreciate your early response.

Mohamed A. Abdou
6288 Boelter Hall
Univ. of California
Los Angeles, CA 90024
phone 213-206-0501

Calendar

Your attention is directed to the following events of interest.

September 1993

Environmental Transport and Dosimetry, an ANS Topical Meeting, Sept. 1–3, 1993, Charleston, South Carolina. Contact: Roy Rathbun, P.O. Box

42, New Ellenton, SC 29809 (phone Roy at 803-644-6967 or Bill Hennessy at 803-641-0420).

Computational and Experimental Validation of Nuclear Power Safety and Fuel Cycle Investigations, Sept. 5–9, 1993, Moscow, Russia. Contact: Prof. V. V. Khromov, Moscow Engineering Physics Institute, Kashirskoe Shosse 31, Moscow, 115409, Russia (phone 095-324-7026, Fax 095-324-2111).

Radiation Transport Calculations Using the EGS4 Monte Carlo System, Sept. 6–10, 1993, a hands-on course offered by the National Physical Laboratory, Teddington, Middlesex, United Kingdom TW11 0LW (phone 081-977-3222, Fax 081-943-2155).

2nd European Conference on Radiations and Their Effects on Devices and Systems, Sept. 13–16, 1993, Saint-Malo, France. Contact: CEA-DAM, Service Electronique, BP 12, F-91680 Bruyeres, Le Chatel, France.

Radiation Transport Calculations Using the EGS4 Monte Carlo System, Sept. 6–10, 1993, sponsored by the National Physical Laboratory, Middlesex, United Kingdom. Contact: Dr. Simon Duane, Div. of Radiation Science and Acoustics, National Physical Laboratory, Queens Road, Teddington, Middlesex, UK TW11 0LW (phone 081-977-3222 Ext 6568, fax 081-943-6161).

2nd International Conference on Computational Physics, Sept. 13–17, 1993, Beijing. Contact: Prof. Tian-Yuan Zhang, IAPCM, P.O. Box 8009, Beijing, P.R. China 100088 (Fax 011-86-1-201-0108).

Physics and Methods in Criticality Safety, a topical meeting of the Nuclear Criticality Safety Division of the American Nuclear Society, Sept. 19–23, 1993, Nashville, Tennessee. Contact: R. Michael Westfall, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6370 (phone 615-576-3513), or Dennis Tollefson, Y-12 Plant, P.O. Box 2009, Oak Ridge, TN 37831-8221 (fax 615-574-2000).

MCNP4A, SABRINA, and 3Dviewer Graphics on the PC, Sept. 27–28, 1993, Gaithersburg, Maryland, a short course conducted by Experimental and Mathematical Physics Consultants, P.O. Box 3191, Gaithersburg, MD 20885 (phone 301-869-2317).

Radioactive Waste Volume Reduction, Sept. 27–29, 1993, Chicago, Illinois. Contact: Woodson Assoc., Inc., P.O. Box 2665, Gaithersburg, MD 20886 (phone 301-990-0751, Fax 301-990-6153).

Introduction to Radiation Protection, Sept. 27–Oct. 1, 1993, Cambridge, Massachusetts, a five-day course conducted by Arthur D. Little, Inc. Contact: David J. Allard, Arthur D. Little, Inc., 20 Acorn Park, Cambridge, MA 02140 (phone 617-498-6101, fax 617-498-7161).

Environmental Effects of Nuclear Power: Calculation and Control, Sept. 28–Oct. 1, 1993, Chicago, Illinois. Contact: Woodson Assoc., Inc., P.O. Box 2665, Gaithersburg, MD 20886 (phone 301-990-

0751, Fax 301-990-6153).

Workshop on Data Analysis in Quality Control and in Radiation Protection of the Patient in Diagnostic Radiology and Nuclear Medicine, Sept. 29–Oct. 1, 1993, Grado, Italy. Contact: Dr. G. Contento, Ospedale Santa Maria della Misericordia, Piazza Santa Maria della Misericordia 15, I-33100 la Loi 200, B-1049 Brussels, Belgium.

October 1993

12th International Conference on Non-Destructive Evaluation in the Nuclear and Pressure Vessel Industries, Oct. 3–7, 1993, Philadelphia, Pennsylvania. Contact: ASM International, Materials Park, OH 44073 USA (phone 216-338-5151; Fax 216-338-4634).

International Symposium on the Advanced Nuclear Power Systems: Design, Technology, and Strategies for Their Deployment, Oct. 18–22, 1993, Seoul, Korea. Contact: Conference Service Section, IAEA, P.O. Box 100, A-1400, Vienna, Austria.

Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Oct. 20–23, 1993, Pacific Grove, California. Contact: D. V. R. Brown, Lawrence Livermore National Laboratory, Bldg. 181, L-288, P.O. Box 808, Livermore, CA 94550 (fax 510-423-8086).

Radiation Protection Engineering, Oct. 25–29, 1993, San Francisco, California. Contact: Woodson Assoc., Inc., P.O. Box 2665, Gaithersburg, MD 20886 (phone 301-990-0751, Fax 301-990-6153).

November 1993

Nuclear Energy Forum, Nov. 14–17, 1993, San Francisco, California. Contact: Conference Office, USCEA, 1776 I Street NW, Suite 400, Washington, DC 20006-3708 (phone 202-293-0770, Fax 202-785-4113).

Effective Utilization of MCNP4A on the PC, Nov. 14–18, 1993, a short course conducted by Experimental and Mathematical Physics Consultants, P.O. Box 3191, Gaithersburg, MD 20885 (phone 301-869-2317).

Air Sampling, Nov. 16–19, 1993, Albuquerque, New Mexico. Contact: Woodson Assoc., Inc., P.O. Box 2665, Gaithersburg, MD 20886 (phone 301-990-0751, Fax 301-990-6153).

Radiation Contamination Risk: Communicating with the Public, Nov. 29–Dec. 3, 1993, Clearwater Beach, Florida. Contact: Woodson Assoc., Inc., P.O. Box 2665, Gaithersburg, MD 20886 (phone 301-990-0751, Fax 301-990-6153).

January 1994

11th Symposium on Space Nuclear Power Systems, Jan. 9–13, 1994, Albuquerque, New Mexico. Contact: Richard Johnson, Inst. of Space Nuclear Power Studies, University of New Mexico, Chemical and Nuclear Engineering Dept., Albuquerque, NM 87131-1341.

Reactor Physics and Reactor Computations, Jan. 23–26, 1994, Tel Aviv, sponsored by the Israel Nuclear Society and the European Nuclear Society. Contact: Dan Knassim Ltd., P.O. Box 57005, Tel Aviv 61570, Israel (phone 972-3-562-6470, Fax 972-3-561-2303).

February 1994

Managing Radioactive and Mixed Waste, Feb. 13–17, 1994, Albany, New York, sponsored by the Health Physics Society. Contact: John M Matusek, NENYHPS, P.O. Box 2249, Empire State Plaza Station, Albany, NY 12220-2249.

1992 HEART Conference, Feb. 14–18, 1994, Monterey, California. Contact: Logicon/RDA, ATTN: 1994 HEART Conference, Mr. Ed. Quinn, 2100 Washington Blvd., Arlington, VA 22204-5706.

March 1994

11th International Conference on the Use of Computers in Radiotherapy, Mar. 20–24, 1994, Manchester, United Kingdom. Contact: J. M. Wilkinson, Christie Hospital, Withington, Manchester M20 9BX, GB.

April 1994

Methods and Applications of Radioanalytical Chemistry (MARC III), Apr. 10–16, 1994, Kona, Hawaii, an International Topical Conference of the American Nuclear Society. Contact Prof. Roy H. Filby, Technical Program Chairman, Department of Chemistry, Washington State University, Pullman, WA 99164-4630 (phone 509-335-3331, fax 509-335-8867).

Topical Meeting on Advances in Reactor Physics, Apr. 11–14, 1994, Knoxville, Tennessee, sponsored by the American Nuclear Society. Contact: B. A. Worley, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6363 USA (phone 615-574-6106).

ARS '94, International Meeting on Advanced Reactor Safety, Apr. 17–20, 1994, Pittsburgh, Pennsylvania. Contact: D. Squarer, Westinghouse Electric Corp., Science and Technology Center, 1310 Beulah Road, Pittsburgh, PA 15235-5098 USA (phone 412-256-2063; fax 412-256-1348).

8th International Conference on Radiation Shielding,

Apr. 24–27, 1994, Arlington, Texas, sponsored by the American Nuclear Society with cooperation from several international and professional societies. Contact: Nolan Hertel, Georgia Tech, Atlanta, GA 30332-0405 USA. Robert W. Roussin is the International Liaison.

RECOD '94, 4th International Conference on Nuclear Fuel Reprocessing and Waste Management, Apr. 24–28, 1994, London. Contact: W. L. Wilkinson, RECOD '94 Steering Committee, British Nuclear Forum, 22 Buckingham Gate, London SW1E 6LB, United Kingdom. (phone 071-828-0116; fax 071-828-0110).

42nd Annual Meeting of the Radiation Research Society, Apr. 25–29, 1994, Nashville, Tennessee. Contact: Radiation Research Society, 1891 Preston White Drive, Reston, VA 22091.

May 1994

9th Pacific Basin Nuclear Conference, May 1–5, 1994, Sydney, Australia. Contact: Australian Nuclear Association, P.O. Box 445, Sutherland, NSW 2232, Australia.

International Workshop on Implementation of ALARA at Nuclear Power Plants, May 8–11, 1994, Long Island, New York. Contact: Dr. John W. Baum or Dr. T. A. Khan, Brookhaven National Laboratory, ALARA Center, Upton, Long Island, NY 11973 USA (phone 516-282-3228, Fax 516-282-5810).

International Conference on Nuclear Data for Science and Technology, May 9–13, 1994, Gatlinburg, Tennessee, USA. Contact: J. K. Dickens, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6356 USA (phone 615-574-6115).

1994 Symposium on Radiation Measurements and Applications, May 16–19, 1994, Ann Arbor, Michigan, the 8th in a series sponsored by the U.S. Department of Energy. Contact: Helen Lum, Symposium Secretary, 3034 Phoenix Memorial Laboratory, The University of Michigan, Ann Arbor, MI 48109-2100.

July 1994

18th International Radiation Physics Society, July 18–22, 1994, Rabat, Morocco. Contact: Pr. M. Berrada, Lab. de Physique Nucléaire, Faculté des Sciences, B. P. 1014 Rabat, Morocco (Fax 212-7-77-99-78).

October 1994

Fourth Conference on Radiation Protection and Dosimetry, Oct. 24–26, 1994, Orlando, Florida, sponsored by the Oak Ridge National Laboratory. Contact: J. S. Bogard, ORNL, P.O. Box 2008, Oak

Ridge, TN 37831-6379 (phone 625-574-5851, fax 615-574-9174).

1995, Augusta, Georgia, sponsored by the ANS.
Contact: C. E. Murphy, Westinghouse SRC,
Savannah River Lab., Aiken, SC 29808.

March 1995

5th Topical Meeting on Tritium Technology in Fission,
Fusion, and Isotopic Applications, Mar. 26-31,

JULY ACCESSION OF LITERATURE

The following literature cited has been ordered for review, and that selected as suitable will be placed in the RSIC Information Storage and Retrieval Information System (SARIS). This early announcement is made as a service to the shielding community. Copies of the literature are not distributed by RSIC. They may generally be obtained from the author or from a documentation center such as the National Technical Information Service (NTIS), Department of Commerce, Springfield, Virginia 22161.

RSIC maintains a microfiche file of the literature entered into SARIS, and duplicate copies of out-of-print reports may be available on request. Naturally, we cannot fill requests for literature which is copyrighted (such as books or journal articles) or whose distribution is restricted.

This literature is on order. It is not in our system. Please order from NTIS or other available source as indicated.

RADIATION SHIELDING LITERATURE

Dissertation. . *A Discrete Ordinates Approximation to the Neutron Transport Equation Applied to Generalized Geometries.* . DeHart, M.D. . 12/92

Chinese J. Nucl. Sci. & Eng., 13 135-142. . *HFETR Core Neutron Spectra Calculation.* . Peng, F.; Liu, S. . 06/93

Chinese J. Nucl. Sci. & Eng., 13 164-172. . *Activation and Waste Disposal Issues for the D-3He Fueled Fusion Reactor Mooncity.* . Feng, K.; Deng, B. . 06/93

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ICRU News, 4-9. . *Dosimetry of External Beta Rays for Radiation Protection.* . Cross, W.G. . 06/93

J. Korean Nucl. Soc., 24(1), 1-13. . *Development of a One-Group Cross Section Data Base of the ORIGEN2 Computer Code for Research Reactor Applications.* . Kim, J.D.; Gil, C.S.; Lee, J.T.; Hwang, W.G. . 03/92

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Radiation. . Harima, Y.; Hirayama, H. . 1993

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Nucl. Sci. Eng., 114 214-218. . *Transmitted Photon Spectra of Gamma Rays Through a Soil Medium.* . Sing, M.; Brar, G.S.; Mudahar, G.S. . 07/93

Nucl. Sci. Eng., 114 219-227. . *Benchmarking the MCNP Monte Carlo Code with a Photon Skyshine Experiment.* . Olsher, R.H.; Hsu, H.H.; Harvey, W.F. . 07/93

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Method for Transient Calculations in Light Water Reactors. . Song, J.W.; Kim, J.K. . 08/93

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DNA-TR-92-134. . *The Effect of Combined Injuries from a Nuclear Detonation on Soldier Performance.* . Levin, S.G. . 06/93

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