

INDUSTRIAL APPLICATIONS AND CHEMISTRY SECTION

List of publications (1987-2006)

1987

1. IAEA-TECDOC-407

Training Guidelines in non-destructive testing techniques

IAEA, 1987

2. IAEA-TECDOC-428

Electron beam processing of combustion flue gases

IAEA, 1987 (CT Karlsruhe, 27-29 October 1986)

3. IAEA-TECDOC- 454

Technical and economic comparison of irradiation and conventional methods

IAEA, 1987 (AGM, Dubrovnik, 6-8 October 1986)

1988

1. IAEA-TECDOC-459

Nuclear Analytical Techniques for on-line elemental analysis in industry

IAEA, 1988 (AGM, Finland, 1-5 June 1987)

2. IAEA- TECDOC- 462

Ultrasonic testing of materials at level 2

(Training manual for non-destructive testing techniques)

IAEA, 1988

3. IAEA-TECDOC-464

Current trends in nuclear borehole logging techniques for elemental analysis

IAEA, 1988 (CM, Canada, 2-6 November 1987)

4. IAEA-TECDOC- 465

Isotopic neutron sources for neutron activation analysis

IAEA, 1988 (User's manual)

5. IAEA-TECDOC-486

Radiation technology for immobilization of bioactive materials

IAEA, 1988

6. IAEA-TECDOC-512

Analytical chemistry in semiconductor manufacturing: techniques, role of nuclear methods and need for quality control.

IAEA, 1988 (CM, USA, 2-3 October 1987)

1989

1. IAEA-TECDOC-520

Technical and economic benefits of nuclear techniques in ore processing

IAEA, 1989 (AGM, Krakow-Poland, 24-28 October 1988)

2. IAEA-TECDOC-527

New trends and development in radiochemistry

IAEA, 1989 (AGM, Bologna, 14-17 November 1988)

1990

1. IAEA-TECDOC-537

Prompt gamma neutron activation analysis in borehole logging and industrial process control

IAEA, 1990 (AGM, Vienna, 1-3 February 1989)

2. IAEA-TECDOC- 564

Practical aspects of operating a neutron activation analysis laboratory

IAEA, 1990

3. Technical Report Series No. 316

Guidebook on applications of radiotracers in industry

IAEA, 1990

1991

1. IAEA-TECDOC- 578

Technology transfer of nuclear techniques and NCS in the mineral industry

IAEA, 1991 (AGM, India, 15-19 January 1990)

2. IAEA-TECDOC- 628 and IAEA-TECDOC-628S (in Spanish)

Training guidelines in non-destructive testing techniques

IAEA, 1991

3. PROCEEDINGS SERIES

Nuclear techniques in the exploration and exploitation of energy and mineral resources

Proceedings of an International Symposium, Vienna, 5-8 June 1990

IAEA, 1991

1992

1. IAEA PROCEEDINGS SERIES

Applications of isotopes and radiation in conservation of the environment

Proceedings of an International Symposium, Karlsruhe, Germany, 9-13 March 1992

IAEA, 1992

2. Training Course Series No.3

Industrial Radiography

IAEA, 1992

1995

1. IAEA-TECDOC-805

Production of Tc-99m radiopharmaceuticals for brain, heart and kidney imaging

IAEA, July 1995

2. IAEA-TECDOC-834

Advanced radiation chemistry research: current status

IAEA, October 1995

3. IAEA-TECDOC-845

Nuclear techniques in the coal industry

IAEA, November 1995

4. IAEA-TECDOC-852

Alternative technologies for Tc-99m generators

IAEA, December 1995

1996

1. IAEA-TECDOC-914

Antibodies immobilized on magnetic particles for radioimmunoassay and immunoradiometric assay of hormones.

IAEA, November 1996

2. Computer Manual Series No.11

Residence Time Distribution Software Analysis

IAEA, 1996

1997

1. IAEA-TECDOC-924

The thin layer activation method and its applications in industry

IAEA, January 1997

2. IAEA-TECDOC-934

Effects of ionizing radiation on blood and blood components: A survey

IAEA, April 1997

3. IAEA- TECDOC- 971

Sewage sludge and wastewater for use in agriculture

IAEA, October 1997

1998

1. IAEA-TECDOC - 1007

Directory of cyclotrons used for radionuclide production in Member States

IAEA, March 1998

2. IAEA- TECDOC -1008

Labeling, quality control and clinical evaluation of monoclonal antibodies for scintigraphy

IAEA, March 1998

3. IAEA-TECDOC-1023

Radiation technology for conservation of the environment

Proceedings of an International Symposium, Zakopane, Poland, 8-12 September 1997

IAEA, September 1998

4. IAEA - TECDOC - 1029

Modern Trends in Radiopharmaceuticals for Diagnosis and Therapy

Proceedings of an International Symposium, Lisbon, Portugal, 30 March - 3 April 1998

IAEA, November 1998

5. IAEA – TECDOC – 1051

Management of radioactive waste from Mo-99 production

IAEA, November 1998

1999

1. IAEA-TECDOC-1062

Stability and stabilization of polymers under irradiation

IAEA, January 1999

2. IAEA - TECDOC - 1065

Production technologies for molybdenum-99 and technetium-99m

IAEA, February 1999

3. IAEA-TECDOC-1069

Characterization of ceramics and semiconductors using nuclear techniques

IAEA, March 1999

4. IAEA- TECDOC -1114

Optimization of production and quality control of therapeutic radionuclides and radiopharmaceuticals

IAEA, September 1999

5. Technical Report Series No. 393

Nuclear Geophysics and its applications

IAEA, 1999

6. Training Course Series No. 9

NDT: A Guidebook for Industrial Management and Quality Control Personnel

IAEA, 1999

7. Training Course Series No. 10

Ultrasonic Testing of Materials at Level 2

IAEA, 1999

2000

1. IAEA- TECDOC-1142

Emerging new applications of nucleonic control systems in industry

IAEA, March 2000

2. IAEA- TECDOC –1165

Modification of materials by ion treatment for industrial applications

IAEA, July 2000

3. Training Course Series No. 11

Surface methods testing (Liquid penetrant testing and Magnetic particle testing) at Level 2

IAEA, February 2000

4. IAEA-TECDOC-1189

Radiation processing of flue gases: Guidelines for feasibility studies

IAEA, December 2000

2001

1. IAEA-TECDOC-1214

⁹⁹Tc^m labelled peptides for imaging of peripheral receptors

April 2001

2. IAEA-TECDOC-1225

Use of irradiation for chemical and microbial decontamination of water, wastewater and sludge

June 2001

3. IAEA TECDOC-1228

Therapeutic Applications of Radiopharmaceuticals

August 2001

4. IAEA-TECDOC-1262

Radiotracer technology as applied to industry

December 2001

5. Training Course Series No. 13

Guidebook for the Fabrication of Non-Destructive Testing (NDT) Test Specimens

September 2001

2002

1. IAEA Brochure

“Radioisotope applications for troubleshooting and optimizing industrial processes”

March 2002

2. IAEA – TECDOC- 1295

Reference Materials for Microanalytical Nuclear Techniques

June 2002

3. IAEA – TECDOC-1307

Development of Kits for Radioimmunoassays for Tumour Markers

August 2002

4. IAEA – TECDOC - 1310

Optimization of Synthesis and Quality Control Procedures for the Preparation of ^{18}F and ^{123}I Labelled Peptides for Nuclear Medicine

December 2002

5. Training Course Series No. 17

Guidebook on Non-destructive Testing of Concrete Structures

November 2002

6. IAEA – TECDOC – 628/Rev.1

Training Guidelines in Non-Destructive Testing Techniques 2002 Edition,

December 2002

7. IAEA- DCRP/CD (CD-ROM)

Directory of Cyclotrons Used for Radionuclide Production in Member States

October 2002

8. IAEA-TECDOC- 1324

Radiation Synthesis and Modification of Polymers for Biomedical Applications

December 2002

9. “Polymer recycling: potential application of radiation technology”, Radiation Physics and Chemistry 64 (2002) 41-51.

2003

1. IAEA-TECDOC-1339

Clean Laboratories and Clean Rooms for Analysis of Radionuclides and Trace Elements

January 2003

2. IAEA-TECDOC-1340

Manual for Reactor Produced Radioisotopes

January 2003

3. IAEA-TECDOC-1350

Development and Use of Reference Materials and Quality Control Materials

April 2003

4. IAEA-CN-103, Book of Abstracts, International Conference, Vienna, 10–13 June

Isotopic and Nuclear Analytical Techniques for Health and Environment

July 2003

5. IAEA-TECDOC-1359

Labelling Techniques of Biomolecules for Targeted Radiotherapy

July 2003

6. IAEA Brochure

Industrial Applications and Chemistry Section

August 2003

7. IAEA Technical Reports Series No. 416

Nuclear Analytical Techniques in Archaeological Investigations

September 2003

8. IAEA-CSP-18/CD

Emerging Applications of Radiation Processing

September 2003

9. M. Rossbach: “Summary of the panel discussion on “Education of Radiochemists”, Czechoslovak Journal of Physics, Vol. 53 (2003), Suppl. A

10. M. Rossbach, E. Zeiller: “Assessment of element specific homogeneity in reference materials using microanalytical techniques, Anal. Bioanal. Chem. (2003) 377: 334-339.

2004

1. IAEA-TECDOC-1386

Emerging Applications of Radiation Processing

January 2004

2. IAEA-DGPF-CD

Directory of Gamma Processing Facilities (DGPF) in Member States

February 2004

3. A.G. Chmielewski, M. Haji-Saeid. Radiation technologies, past, present and future. Proceedings of International Meeting on Radiation Processing 2003 on “Advancing ionization n technology”, 7-12 September 2003, Chicago, USA. Radiation Physics and Chemistry **71**, (2004) 17–21.

4. IAEA-CSP-22/CD, C&S Papers Series (CD-ROM)

Isotopic and Nuclear Analytical Techniques for Health and Environment

May 2004

5. IAEA/RCA Brochure on Radiotracer techniques for leak detection

May 2004

6. Berne Ph., Thereska J. Simulation of a radiotracer experiment by flow and detection-chain modeling: a first step towards better interpretation. Applied Radiation and Isotopes 60 (2004) 855-861

7. IAEA Training Course Series, TCS-24

Quality System Implementation for Nuclear Analytical Techniques

IAEA, July 2004

8. IAEA Technical Report Series TRS, 423,

Radiotracer Applications in Industry - A Guidebook

IAEA, September 2004

9. IAEA Technical Report Series TRS, 426,

Development of agents for imaging CNS receptors based on ^{99m}Tc

IAEA, September 2004

10. IAEA – TECDOC –1407

Status of industrial scale radiation treatment of wastewater and its future.

IAEA, September 2004

11. IAEA, Analytical Applications of Nuclear Techniques

STI/PUB/1181, 2004, Book (non-serial publication)

12. IAEA/RCA Brochure, ISBN No. 83-909690-3-3

Radiation processing of polysaccharides for health care applications

September 2004

13. IAEA- TECDOC – 1414

Development of kits for Tc-99m radiopharmaceuticals for infection imaging

September 2004

14. IAEA – TECDOC – 1415

Soil Sampling for Environmental Contaminants

October 2004

15. IAEA-TECDOC –1420

Advances in radiation chemistry of polymers

November 2004

16. IAEA – TECDOC – 1422

Radiation processing of polysaccharides

November 2004

17. M. Rossbach, Need for Capacity building and knowledge management in nuclear applications, an IAEA perspective. IAEA-CN-123/02/O/09 (2004), Proceedings of „International Conference on Nuclear Knowledge Management: Strategies, Information Management and Human Resource Development“. 7-10 September 2004, Saclay, France

18. M. Rossbach, P. De Regge, G.V. Iyengar (guest editors). Isotopic and nuclear analytical techniques (Editorial), J. Anal. Bioanal. Chem. Vol. 379 No.2, 171-172 (2004)

19. M. Rossbach (guest editor). Editorial, Isotopic and nuclear analytical techniques for health and Environment, Nukleonika, Vol. 49, No. 3 (2004) 85

20. IAEA-TECDOC-1430

Radioisotope Handling Facilities and Automation of Radioisotope Production

Vienna, December 2004

2005

1. Rossbach M., Narasimhan D.V.S., Chmielewski A., Einav I., Thereska J., Haji-Saeid M.

Activities to foster training in nuclear and radiochemistry from IACS, IAEA, Vienna

J.Radioanal.Nucl.Chem., Vol. 263, No. 1 (2005) 111-115.

2. IAEA Technical Reports Series TRS 432.

Standardized High Current Solid Targets for Cyclotron Production of Diagnostic and Therapeutic Radionuclides, *STI/DOC/010/432*

Vienna, February 2005

3. IAEA-TECDOC-1412
Integration of tracing with CFD for industrial process investigations
Vienna, February 2005
4. IAEA-TECDOC-1438
Emerging Applications of Radiation in Nanotechnology
Vienna, March 2005
5. A.G. Chmielewski, M. Haji-Saeid, "Radiation technology for new materials development, human health and environment protection", Radiation Inactivation of Bioterrorism Agents, (Gazco, L.G., Ponta, C.C., Eds.), NATO Science Series, Series I: Life and Behavioural Sciences, Vol. 365, IOS Press (2005). Article in Radiation Inactivation of Bioterrorism Agents, NATO Science Series, 2005.
6. IAEA-TECDOC-1443.
Nuclear Analytical Methods for Platinum Group Elements,
Vienna, April 2005
7. IAEA-TECDOC-1445. Development of Protocols for Corrosion and Deposits Evaluation in Pipes by Radiography,
Vienna, April 2005
8. IAEA-TECDOC-1459. Technical Data on Nuclear Gauges,
Vienna, July 2005
9. IAEA Brochure
Gamma irradiators for radiation processing.
July 2005.
10. IAEA, Training Course Series, IAEA-TCS-26.
Non-destructive Testing for Plant Life Assessment.
Vienna, October 2005.
11. IAEA-TECDOC- 1465. Radiation Synthesis of Stimuli-responsive Membranes, Hydrogels and Adsorbents for Separation Purposes.
Vienna, September 2005

2006

1. IAEA-TECDOC-1473.
Radiation Treatment of Gaseous and Liquid Effluents for Contaminant Removal.
Proceedings of a Technical Meeting held in Sofia, Bulgaria, 7-10 September 2004.
Vienna, February 2006.
2. IAEA-TECDOC-1498
Development of Radioimmunoassays and Kits for Non-clinical Applications
Vienna, June 2006
3. IAEA-TECDOC-1512
Production Techniques and Quality Control of Sealed Radioactive Sources of Palladium-103, Iodine-125 and Iridium-192 and Ytterbium-169
Vienna, July 2006
4. IAEA, DCRP, CD-ROM. Directory of Cyclotrons Used for Radionuclide Production in Member States, 2006 Update.
Vienna, November 2006.
5. IAEA-Technical Report Series-TRS 458
Comparative Evaluation of Therapeutic Radiopharmaceuticals

December 2006

6. IAEA –Non serial publications

Radiation Processing: Environmental Applications

Vienna, January 2007