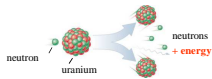


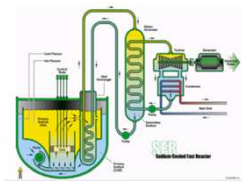
Career development in nuclear engineering

G. Sibbens

EC – JRC – Institute for Reference Materials and Measurements



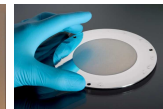
JRC-IRMM as provider of neutron data



- to ensure nuclear reactor safety
- to support safety assessments,
- to facilitate management of nuclear waste
- to support new reactor concepts



2015 Target Preparation group



Thin ¹⁰B target, prepared by physical vapour deposition on an aluminium backing

Profession

1990-2008

Joint Research Centre
Institute for Reference Materials and Measurements (Geel, Belgium)

Technical assistant

Duties:

- Primary standardisation of radioactive solutions by 4π counting, defined solid-angle counting and coincidence counting
- Designing and carrying out research and laboratory experiments for the preparation of radioactive sources
- Determining impurities and alpha-particle emission probabilities by high-resolution alpha-particle spectrometry
- Determining the detection efficiency by Monte Carlo simulations
- Writing publications in refereed journals



Training

2006 Certification Training,

Brussels, Belgium

- Analysing and solving problems
- Thinking creatively
- Writing and speaking effectively
- Negotiating successfully
- Organising yourself efficiently
- Developing teamwork
- Maximising colleagues' potential
- Giving presentations
- Chairing meetings
- Budget and decision making
- Managing projects

Profession

2009-

Joint Research Centre
Institute for Reference Materials and Measurements (Geel, Belgium)

Scientific Officer for preparing targets for neutron physics experiments

Duties:

- Lab responsible of the Target Preparation Laboratory: managing the functioning and operation of the IRMM target preparation laboratory, including corresponding safety, health and environmental arrangements
- Co-ordinating the development of a network for nuclear target preparation and characterisation in the project CHANDA solving CHallenges in Nuclear DATA.
- Managing a task team: workload, work organisation, schedules, priorities.
- Writing publications in refereed journals

Further
Opportunities

Profession

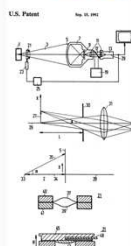
1988-1990

Philips Medical Systems (Best, the Netherlands)

Head of technical support and quality assurance of medical systems

Duties:

- Managing a team of technicians who support the production of medical systems with technical working instructions, test equipment and quality control
- Monitoring and co-ordinating new developments.



European Patent
EP0453027:
X-ray apparatus
with filter

Profession

1986-1988

Philips Medical Systems (Best, the Netherlands)

Co-operator research radiation physics

Duties:

- Calibrating X-ray detectors
- Giving advice for radiation dosimetry
- Doing research on quality of X-rays for medical purposes
- Studying patents and doing research on the improvement of the image quality of medical X-ray equipment

Studies

1975-1978 Low secondary

1978-1981 High secondary natural science
1981-1982 Pre-university mathematics

1982-1986

Master of Science in Nuclear Engineering

1985

Nuclear Energy Centre SCK/CEN (Mol, Belgium)

Practical training for master's thesis

Studying the environmental radiation and developing a dosimeter to measure the environmental radiation in the case of a nuclear accident

Contact

Goedele Sibbens

European Commission · Joint Research Centre
Institute for Reference Materials and Measurements
Standards for Nuclear Safety, Security and Safeguards
Target Preparation laboratory

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<https://ec.europa.eu/jrc>