

IAEA Nuclear Data Section 50th Anniversary

Personal Timelines

**Alan Nichols
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University of Surrey
Guildford, UK**

**2 June 2014
IAEA, Vienna, Austria**

IAEA Nuclear Data Section

1964 → Nuclear Data Unit, Carl H. Westcott/Bill Good

Nuclear Data Section:

1969 → 1992	Joe Schmidt	22 y
1992 → 1993	Valya Konshin (Division Director)	1 y
1993 → 1995	Charlie Dunford	2 y
1995 → 1996	Pavel Obložinský (Acting head)	1 y
1996 → 2001	Doug Muir	5 y
2001 → 2009	Alan Nichols	7½ y
2009 → to date	Robin Forrest	

Joe Schmidt

1931 - 2014



1995: introduced to me as “the father of nuclear data” by John Rowlands (ex-AEEW, UK and CEA, France), another respected and sadly missed nuclear physicist and nuclear data specialist

quote:

Dr. J.J. Schmidt has retired. He was the head of the IAEA Nuclear Data Section for more than 22 years from 1969 to 1992. More than anyone else he promoted international cooperation in the field of nuclear data. The International Nuclear Data Committee, data centre networks, specialists meetings to assess data needs, training courses, and research contracts are some of the keywords of his activities, which were notably successful due to his broad knowledge, initiative, and exceptionally friendly personality

International Conference on Nuclear Data for Science and Technology: cooperation and co-sponsorship of the IAEA, Nuclear Data Section

- 1978** Harwell, UK: International Conference on Nuclear Physics and Nuclear Data for Reactors and Other Applications
- 1982** Antwerp, Belgium: International Conference on Nuclear Data for Science and Technology
- 1985** Santa Fé, USA: International Conference on Nuclear Data for Basic and Applied Science
- 1988** Mito, Japan: International Conference on Nuclear Data for Science and Technology
- 1991** Jülich, Federal Republic of Germany
- 1994** Gatlinburg, USA
- 1997** Trieste, Italy
- 2001** Tsukuba, Japan
- 2004** Santa Fé, USA
- 2007** Nice, France
- 2010** Jeju Island, Republic of Korea
- 2013** New York, USA
- 2016** Bruges, Belgium

**International Conference on Nuclear Data for Science and Technology
13-17 May 1991, Forschungszentrum Jülich, Federal Republic of Germany**

Joe Schmidt, Charlie Dunford, Doug Muir, Alan Nichols and Robin Forrest, along with Hans Lemmel and Pavel Obložinský (as part of 328 people from 37 countries)



International Conference on Nuclear Data for Science and Technology
13-17 May 1991, Forschungszentrum Jülich, Federal Republic of Germany
Charlie Dunford , Joe Schmidt, and Hans Lemmel



**International Conference on Nuclear Data for Science and Technology
13-17 May 1991, Forschungszentrum Jülich, Federal Republic of Germany**

Charlie Dunford , Joe Schmidt, and Hans Lemmel

Doug Muir



**International Conference on Nuclear Data for Science and Technology
13-17 May 1991, Forschungszentrum Jülich, Federal Republic of Germany**

**Charlie Dunford , Joe Schmidt, and Hans Lemmel
Doug Muir**



Robin Forrest and Pavel Obložinský



International Conference on Nuclear Data for Science and Technology
13-17 May 1991, Forschungszentrum Jülich, Federal Republic of Germany
Charlie Dunford, Joe Schmidt, Hans Lemmel, Doug Muir, Robin Forrest,
Pavel Obložinský and me (..... and Valya Konshin)



Nuclear Data Section at play

for five days from 13 to 17 May 1991, all present and (until now) future leaders of the Nuclear Data Section were together

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Remarkable

Nuclear Data Section at play

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Remarkable

Unique!

OTHER MATTERS

Impacts and timelines – a personal trail

main IAEA contacts

Joe Schmidt (1976)



Alex Lorenz (1979)



Hans Lemmel (1989)



Mike Herman (1997)



Nuclear Data Section (2001)

Decay data evaluations –
technical mentors

Charlie Reich (1979)



Dick Helmer (1983)

Eddie Browne (1990s)



decay data evaluations

Personal recollections

1. Vienna, 3-7 May 1976, IAEA-NDS meeting held on the Ring

Advisory Group Meeting on Nuclear Structure and Decay Data for Applications

INDC(NDS)-79, edited by Alex Lorenz

- establishment of international network of nuclear structure and decay data evaluators for ENSDF
- superb chairmanship
- dark, empty streets and clanking elevators



some of those in attendance

**Walter Bambynek, Heinrich Behrens,
Fred Bertrand, Jean Blachot, Feliks Chukreev,
Charlie Dunford, G. Erdtmann, Hans Hansen,
Norman Holden, Igor Kondurov,
Jean Legrand, Alex Lorenz,
Andrzej Marcinkowski, Hajime Ohnuma,
Sol Pearlstein, Gianni (Johnnie) Reffo,
Joe Schmidt, Tsutomu Tamura, Peter Twin,
Cor van der Leun, Herbert Vonach**

Personal recollections

2. Second Coordinated Research Meeting on the Measurement and Evaluation of Transactinium Isotope Nuclear Data, Aix-en-Provence, 30 April - 1 May 1979, INDC(NDS)-105, edited by A. Lorenz

3. Second IAEA Advisory Group Meeting on Transactinium Isotope Nuclear Data, CEN Cadarache, France, 2-5 May 1979, INDC(NDS)-106, edited by A. Lorenz

- **my first coordinated research project (CRP)**
- **robust snoring in the over-heated conference room**
- **light snoring on the bus between Cadarache and Aix**

Personal recollections

IAEA, Vienna, my first at the VIC

4. Third Coordinated Research Meeting on the Measurement and Evaluation of Transactinium Isotope Nuclear Data, Vienna, 12-13 June 1980, INDC(NDS)-118, edited by A. Lorenz

- overall, there were as many as SEVEN CRMs for this CRP, from 1978 to 1985, which may be a record (?)
- travelling on the Ubahn – brilliant
- folk taking pictures towards the city from the 23rd floor

Personal recollections

**5. Third Advisory Group Meeting on
Transactinium Isotope Nuclear Data, 21-25 May
1984, Uppsala, Sweden, INDC(NDS)-158, edited by
A. Lorenz**

Final technical report:

**Decay Data of the Transactinium Nuclides, Technical
Reports Series No. 261, IAEA, Vienna, May 1986**

Personal recollections

6. Consultants' Meeting on Gamma-ray Standards for Detector Calibration, Grenoble, France, 30-31 May 1985, INDC(NDS)-171, A. Lorenz

7. First Coordinated Research Meeting on Gamma-Ray Standards for Detector Calibration, Rome, Italy, 11-13 June 1987, INDC(NDS)-196, prepared by P. Christmas, A.L. Nichols and A. Lorenz

30-31 May 1985, Grenoble, France

IAEA Consultants' Meeting on Gamma-ray Standards for Detector Calibration

- only some of the delegates, LTR: Walter Bambynek (CEC-JRC, Geel), Peter Christmas (NPL, UK), Klaus Debertin (PTB, Germany), Alan Nichols (AEE Winfrith, UK), Alex Lorenz (NDS, IAEA), Rene Vaninbroukx (CEC-JRC, Geel), Alan Fudge (AEA Harwell, UK), Dick Helmer (INEL, USA)



11-13 June 1987, Rome, Italy

IAEA First Research Coordination Meeting on the Measurement and Evaluation of Gamma-ray Standards for Detector Calibration – first such decay-data CRP (1986-1991)

back row, LTR: Peter Christmas (NPL, UK), Dick Helmer (INEL, USA), Nelcy Coursol (LNHB, France), Klaus Debertain (PTB, Germany)
front row, sitting, LTR: Alan Nichols (AEE Winfrith, UK), Walter Bambynek (CEC-JRC, Geel), Rezső Jedlovsky (OMH, Hungary), Frank Schima (NBS, USA), Yasukazu Yoshizawa (Hiroshima University, Japan), Alex Lorenz (NDS, IAEA)



Personal recollections

Final technical report:

**X-ray and Gamma-ray Standards for Detector Calibration,
IAEA-TECDOC-619, IAEA, Vienna, September 1991**

Personal recollections

8. First Research Coordination Meeting on Update of X- and Gamma-Ray Decay Data Standards for Detector Calibration and Other Applications. Vienna, 9-11 December 1998, INDC(NDS)-403, prepared by M. Herman and A.L. Nichols

9. Second Research Coordination Meeting on Update of X- and Gamma-Ray Decay Data Standards for Detector Calibration and Other Applications, PTB Braunschweig, Germany, 10-12 May 2000, INDC(NDS)-415, edited by M. Herman and A.L. Nichols

10-12 May 2000, PTB, Braunschweig, Germany

IAEA Second Research Coordination Meeting on Update of X- and Gamma-ray Standards for Detector Calibration and Other Applications – second such decay-data CRP (1998 – 2004/07)

back row, LTR: Alan Nichols (AEA Harwell/Culham, UK), Gabor Molnár (CRC-IISC, Hungary), Stanislav Hlaváč (Slovak Academy of Sciences, Slovakia), Eckart Schönfeld (PTB, Germany), Mike Herman (NDS, IAEA), Jose Maria Los Arcos (CIEMET, Spain)
front row, LTR: Andrzej Marcinkowski (ASINS, Poland), Otaviano Helene (Universidade de São Paulo, Brazil), Valery Chechev (VG Khlopin Radium Institute, Russia), Marie-Martine Bé (LNHB, France), Dick Helmer (INEL, USA), Mike Woods (NPL, UK)



Personal recollections

Final technical report:

Update of X Ray and Gamma Ray Decay Data Standards for Detector Calibration and Other Applications,

Vol. 1: Recommended Decay Data, High Energy Gamma Ray Standards and Angular Correlation Coefficients;

Vol. 2: Data Selection Assessment and Evaluation Procedures,

STI/PUB/1287, May 2007,

M.-M. Bé, V.P. Chechev, R. Dersch, O.A.M. Helene,

R.G. Helmer, M. Herman, S. Hlaváč, A. Marcinkowski,

G.L. Molnár, A.L. Nichols, E. Schönfeld, V.R. Vanin and

M.J. Woods

Personal recollections

10. First Research Coordination Meeting on Updated Decay Data Library for Actinides, Vienna, 17-19 October 2005, INDC(NDS)-0479, M.A. Kellett

Final technical report:

Library of Recommended Actinide Decay Data, 2011, STI/PUB/1618, December 2013,

M.-M. Bé, V.P. Chechev, Huang Xialong, M.A. Kellett, F.G. Kondev, A. Luca, G. Mukherjee, A.L. Nichols and A.K. Pearce,

Technical editors: M.A. Kellett and A.L. Nichols

2014 - what now for ALN?

11. First Research Coordination Meeting on Updated Decay Data for Charged-particle Monitor Reactions and Medical Isotope Production, Vienna, 3-7 December 2012, INDC(NDS)-0630, A.L. Nichols and R. Capote Noy

Decay data evaluations for ^{63}Zn , ^{73}Se , ^{76}Br , ^{89}Zr , $^{94}\text{Tc}^m$ and ^{120}I

Auger-electron studies for $^{99}\text{Mo}/^{99}\text{Tc}^m$, $^{103}\text{Pd}/^{103}\text{Rh}^m$, $^{111}\text{In}/^{111}\text{Cd}^m$ and possibly others

VIC, IAEA, Vienna, Austria

Along the Corridors of A23, with guests, May 2006

Boris Kuzminov (IPPE, Obninsk, Russia), Svetlana Dunaeva (NDS, IAEA) and visiting youngest son (Alexandr Dunaev),
Boris Fursov (IPPE, Obninsk, Russia), Alan Nichols and Viktor Zerkov (NDS, IAEA)



May 2004

Meeting of the International Nuclear Data Committee – calibration on-going

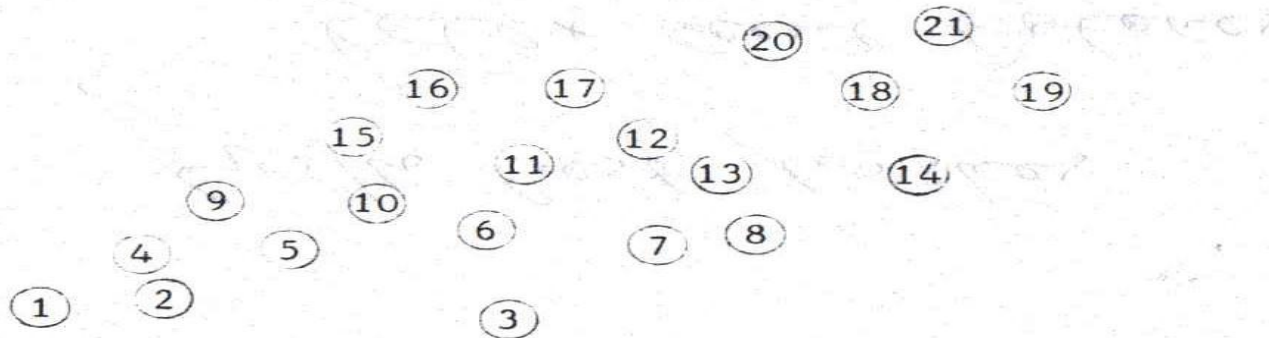
Boris Kuzminov (IPPE, Obninsk, Russia), Syed Qaim (Jülich, Germany), Ferenc Tárkányi (ATOMKI, Debrecen, Hungary), Bohumil Ošmera (NRI, Řež, Czech Republic), Alan Nichols and Andrej Trkov (NDS, IAEA)



NDS: Christmas 1985



NDS: Christmas 1985 - names



- 1 Koichi Okamoto
- 2 Madhu Mehta
- 3 Georgina Bush
- 4 Vladimir Piksaikin
- 5 Alex Lorenz
- 6 Joe Schmidt
- 7 Monica Seits
- 8 Otto Schwerer
- 9 Zoltan Bödy
- 10 Sofie Aung
- 11 Liz Pocock

- 12 Uli Lückl
- 13 Liesl Baumgartner
- 14 Khalid Sheikh
- 15 Hans Lemmel
- 16 Valery Goulo
- 17 Dario Gandarias Cruz
- 18 Kevin McLaughlin
- 19 Gordon Mundy
- 20 Meinhart Lammer
- 21 Red Cullen



NDS + two guests: Christmas 2002



Left to right:

Amit Raj Sharma (guest, Institute of Plasma Research, Gandhinagar, India), Vladimir Pronyaev (Russia), Ganesan Srinivasan (guest, BARC, India), Otto Schwerer (Austria), Andrej Trkov (Slovenia), Denis Humbert (France), Viktor Zerkin (Ukraine), Monica Wirtz (Germany), Bob Clark (USA), Khalid Sheikh (Pakistan), Raquel Paviotti de Corcuera (Brazil), Mark O'Connell (Ireland), Georgina Bush (UK), Alan Nichols (UK), Andrea Scherbaum (USA), Kevin McLaughlin (UK), Liam Costello (Ireland), Mike Herman (Poland)

one staff member absent from photo (Rosanna Bojdo); also two unfilled vacancies in the Section at the time

was it a good photograph?



2002

let the viewer judge



2002

IAEA Nuclear Data Section, 50th Anniversary Personal Timelines

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Lidija Vrapcenjak, Nuclear Data Section, IAEA, Vienna, Austria**

*International Nuclear Data Committee
IAEA, Vienna, Austria, 2 June 2014*