



NKS GammaUser 2014

EFFTRAN

Tim Vidmar

SCK.CEN, Belgian Nuclear Research Centre, Boeretang 200, Mol, Belgium

Tim.Vidmar@sckcen.be

Copyright notice

Slides 3 to end are the intellectual property of Tim Vidmar from the SCK.CEN, Belgian Nuclear Research Centre.

"Unauthorised reproduction constitutes a copyright infringement and may lead to prosecution or civil proceedings."

EFFTRAN Characteristics

- Offers Efficiency Transfer and Coincidence Correction computation
- XCOM material data file and the Kordaten decay data (DDEP compatible)
- Limited to coaxial detectors
- Cylindrical samples (including planar detectors and point sources) and Marinelli beakers
- Short run time, easy installation
- User interface in Excel, using VBA
- No user's manual currently provided

EFFTRAN Characteristics

- Calculation modules in FORTRAN
- Export and import of efficiencies and coincidence corrections from Canberra's GENIE platform and ORTEC's GammaVision
- Successfully tested against measurements of calibrated standards, other Efficiency Transfer codes and GESPECOR
- Participation in an international inter-comparison of codes for calculation of coincidence summing corrections

EFFTRAN Characteristics

- Can be used in a non-interactive mode user extendable
- Available completely free of charge free software
- All source files included
- Has been adopted for routine use at the SCK•CEN good results
- Downloaded by about 60-70 different groups and individuals
- To get a copy, email Tim.Vidmar@sckcen.be
- Visit http://www.efftran.com/

References

Vidmar, T., 2005. EFFTRAN - a Monte Carlo efficiency transfer code for gamma-ray spectrometry. Nuclear Instruments and Methods A 550, 603-608.

Vidmar, T., et al., 2010. Testing efficiency transfer codes for equivalence. Applied Radiation and Isotopes 68, 355-359.

Vidmar, T., Kanisch, G., Vidmar, G., 2011. Calculation of true coincidence summing corrections for extended sources with EFFTRAN. Applied Radiation and Isotopes 69, 908-911.