Half-Life Evaluations

M.J. Woods
Centre for Ionising Radiation Metrology
National Physical Laboratory
Teddington, Middlesex TW11 0LW, UK

The principal effort has concentrated on the identification and retrieval of published texts which contain relevant half-life data. To date, almost 700 potential references have been identified and retrieval is still underway although the majority of documents have now been received. Each article is read to determine its applicability and, where relevant, information is recorded on the method of measurement, whether or not the effects of impurities were considered, the length of the measurement period, the determined half-life value together with its declared uncertainty and confidence level. Evaluations are proceeding on the same basis as used for TECDOC-619, keeping the cut-off date as 1968, as before. The effects of impurities can be significant and retaining the 1968 date is appropriate given that the use of Ge detectors only started in about 1965. To date, complete sets of data have been retrieved and evaluated for some 19 radionuclides but additional checking and validation is still required.