



RadDecay[®] 3.0

RadDecay[®] 3.0 is an interactive program for displaying radioactive decay information for any of the radionuclides in the libraries. RadDecay[®] comes with the standard Nuclide Library of 497 nuclides and two optional libraries (ICRP-38 with 838 nuclide and MIRD with 242 nuclides). Data displayed includes the half-lives, radioactive daughter nuclides, probabilities per decay, and decay product energies for alphas, betas, positrons, electrons, X-rays, and gamma rays. With the optional libraries, RadDecay[®] also generates displays, plots, and printouts for composite beta spectrum data. The Nuclide Library information is primarily based on data supplied by the Radiation Safety Information Computational Center (RSICC) at Oak Ridge National Laboratory.

RadDecay[®] 3.0 conducts decay calculations for a single nuclide or a set of nuclides. For a single nuclide, given an initial activity and decay time by the user, RadDecay[®] will calculate the remaining activity of the nuclide and the activity of its progeny. The decay chain is calculated and displayed for as many as 20 generations. Identical daughter nuclides generated along different branches of the decay chain are alternately combined and displayed. Decay chain and decay curves can be readily displayed and printed. Users can display information by clicking on any nuclide in the displayed decay chain.

RadDecay[®] 3.0 also conducts decay calculations for a set of nuclides and generates a summary report for viewing, printing, and saving. The user also has the option to set the minimum activity reported. RadDecay[®] searches its library and reports the corresponding nuclides for photons, alphas, betas, electrons, or positrons within user-defined energy and half-life ranges.

Among the improvements and enhancements relative to prior versions are:

- Addition of a periodic chart to select nuclides
- Color coding of parents and daughters in the case file
- Nuclide information was added to the case file
- Multiple-nuclide decay calculations, individual set and in batches
- Choice of units for input and output of multiple-nuclide decay calculations
- Additional two optional nuclide libraries made available (ICRP-38 and MIRD)
- Feature to allow user to select desired print font, flexibility in configuration
- Compatibility with international date formats
- Ability to display data for multiple nuclides.
- Ability to display information about any nuclide displayed in a decay chain.

RadDecay[®] 3.0 is compatible with Windows 2000 and XP.

License Type: Single User