Contents

- Individual resonance parameters for nuclei Z = 1 – 100 (473 nuclei)
- Thermal cross sections, coherent scattering amplitudes for Z = 1 – 100
- Average resonance parameters, level spacings, capture widths, neutron strength functions, photon strength functions for s-, p-, d-wave neutrons, Maxwellian average 30-keV capture cross sections, and resonance integrals
- Updated introduction stressing the systematics of average resonance parameters and tabulating nuclear level density parameters and parity non-conservation results
History

- The 1st edition of BNL-325 appeared in 1955; it was prepared by Donald J. Hughes and John A. Harvey.
- BNL-325 has been widely used and frequently referenced.

Features

- Atlas of Neutron Resonances contains recommended values only.
- Thermal cross sections.
- Coherent scattering amplitudes.
- Average resonance parameters:
  - Average radiative widths.
  - Level spacings.
  - Neutron strength functions for s-, p-, d-partial waves.
  - 30-keV Maxwellian average capture cross sections.
  - Resonance integrals.
- Consistency between individual resonance parameters and thermal constants as well as the average resonance parameters.

Availability

- Atlas of Neutron Resonances (to be published in 2006) will be a prime source handbook that meets the needs of researchers and evaluators.
- For future information go to www.nndc.bnl.gov/atlas.