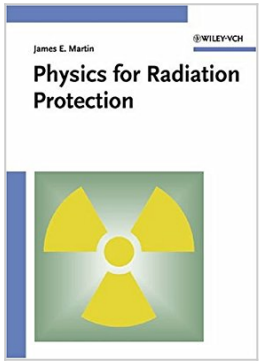

Physics for Radiation Protection

By James E. Martin

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A practical guide to the basic physics that radiation protection professionals need

A much-needed working resource for health physicists and other radiation protection professionals, this volume presents clear, thorough, up-to-date explanations of the basic physics necessary to address real-world problems in radiation protection. Designed for readers with limited as well as basic science backgrounds, Physics for Radiation Protection emphasizes applied concepts and carefully illustrates all topics through examples as well as practice problems.

Physics for Radiation Protection draws substantially on current resource data available for health physics use, providing decay schemes and emission energies for approximately 100 of the most common radionuclides encountered by practitioners. Excerpts of the Chart of the Nuclides, activation cross sections, fission yields, fission-product chains, photon attenuation coefficients, and nuclear masses are also provided. Coverage includes:
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* An overview of the major discoveries in radiation physics
* Extensive discussion of radioactivity, including sources and materials
* Nuclear interactions and processes of radiation dose
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* Specialty topics ranging from nuclear criticality and applied statistics to X rays
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Editorial Review

Review
"...a useful source of knowledge for the North American health physicist." (Radiation Protection Dosimetry, Vol. 97, No. 3, 2001)

From the Back Cover
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JAMES E. MARTIN, PhD, CHP, is Associate Professor (Emeritus) at the University of Michigan where he has done research and teaching on environmental and public health aspects of radiation with an emphasis on radiation physics since 1982. He also served 25 years (1957-81) with the U.S. Public Health Service and Environmental Protection Agency, doing environmental assessments of radioactive materials including protection standards. His
doctorate is in Radiological Health. Professor Martin is certified in Health Physics by the American Board of Health Physics and has published over 40 peer-reviewed papers and numerous articles and reports. Advisory Committee memberships include two National Academy of Science committees, the Science Advisory Board of the Environmental Protection Agency, and the U.S. Department of Energy.

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