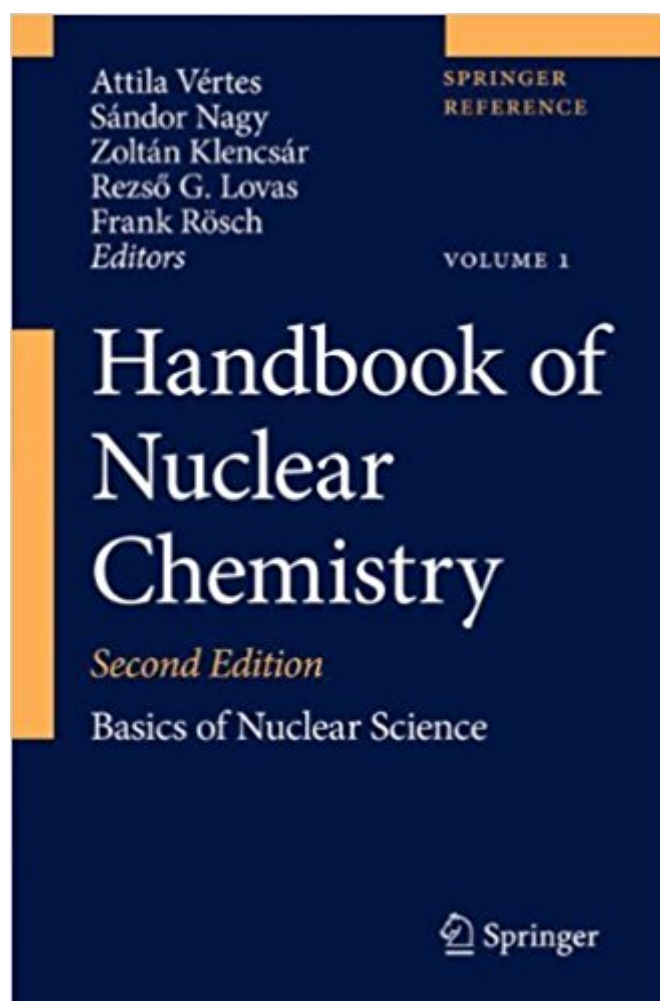


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# Handbook Of Nuclear Chemistry: Vol. 1: Basics Of Nuclear Science; Vol. 2: Elements And Isotopes: Formation, Transformation, Distribution; Vol. 3: ... Nuclear Energy Production And Safety Issues.





## Synopsis

This revised and extended 6 volume handbook set is the most comprehensive and voluminous reference work of its kind in the field of nuclear chemistry. The Handbook set covers all of the chemical aspects of nuclear science starting from the physical basics and including such diverse areas as the chemistry of transactinides and exotic atoms as well as radioactive waste management and radiopharmaceutical chemistry relevant to nuclear medicine. The nuclear methods of the investigation of chemical structure also receive ample space and attention. The international team of authors consists of scores of world-renowned experts - nuclear chemists, radiopharmaceutical chemists and physicists - from Europe, USA, and Asia. The Handbook set is an invaluable reference for nuclear scientists, biologists, chemists, physicists, physicians practicing nuclear medicine, graduate students and teachers - virtually all who are involved in the chemical and radiopharmaceutical aspects of nuclear science. The Handbook set also provides further reading via the rich selection of references.

## Book Information

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and principle resource should help nuclear physics specialists.â • (Joseph J. Grenier, .com, September, 2015)From the reviews of the 1st Edition:"â [[the Editors] have displayed a comprehensive visionâ | far more exhaustive than any of the existing books on nuclear chemistry and/or radiochemistry. â | an impressive and fascinating workâ | the clear arrangement of the various topics, extensive indexes in each volume, a short summary at the start of each chapter, in most chapters the use of bold characters in the text when introducing a new concept, facilitate its use as a reference work. â | appendices on units, physical constants, nuclear and atomic data, and reference materials enhance the usefulnessâ | indispensable for students and researchers in the nuclear field at large. In addition, it is also useful for scientists from the disciplines of biology, medicine, physics, and chemistry, showing the wealth of nuclear and radiochemical methods to solve their problems and to achieve progress in their fields. "...The editors have chosen the title by the consideration that 'nuclear chemistry' and 'radiochemistry' have become practically synonymous....In the selection of topics they have displayed a comprehensive vision considering a large spectrum of topics, so that the handbook has become far more exhaustive than any of the existing books on nuclear chemistry and/or radiochemistry.... Due to the wide scope, the handbook has become an impressive and fascinating work, positioning nuclear fundamentals and methods firmly and clearly within the spectrum of pure and applied natural sciences. ...Each chapter forms generally a complete whole, keeping the balance steady between conciseness and completeness, and showing liveliness due to the varying writing style of the authors. ...The chapters quite often contain a short (historical) introduction, sometimes remarks about future developments or perspectives and at the end suggested further readings, in addition to a standard list of references. The clear arrangement of the various topics, extensive indexes in each volume, a short summary at the start of each chapter, in most chapters the use of bold characters in the text when introducing a new concept, facilitate its use as a reference work. The various appendices on units, physical constants, nuclear and atomic data, and reference materials enhance the usefulness of this handbook, and justify having this handbook close at hand. ...Altogether, due to the comprehensive character this handbook is indispensable for students and researchers in the nuclear field at large. In addition, it is also useful for scientists from the disciplines of biology, medicine, physics, and chemistry, showing the wealth of nuclear and radiochemical methods to solve their problems and to achieve progress in their fields....The handbook is a helpful basis for scientists to disseminate relevant and interesting information on nuclear topics to a large public. In particular showing that nuclear and associated radiation aspects are quite natural phenomena (human life on earth today would not exist without), and especially that mankind has benefited much and still may benefit in

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Bohr's, Heisenberg's, Schrodinger's, Einstein's & Planck's theories and formulae are all included here. Cyclotrons, concepts of thermodynamics, PET, NMR, SPECT imaging and their underlying math principles have whole sections and chapters devoted to them This encyclopedia and principle resource should help nuclear physics specialists.

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