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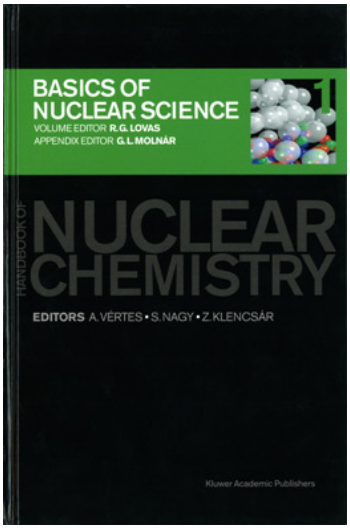

Handbook of Nuclear Chemistry

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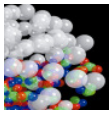
Volume 1: *Basics of Nuclear Science*		**1. History of Nuclear and Radiochemistry - 2. Basic Properties of the Atomic Nucleus - 3. Nuclear Reactions - 4. Nuclear Fission - 5. Kinetics of Radioactive Decay - 6. Interaction of Radiation with Matter - 7. Statistical Aspects of Nuclear Measurements - 8. The Standard Model of Elementary Particles**
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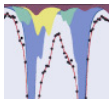
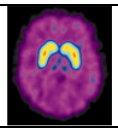
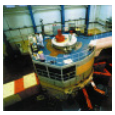
Volume 3: *Chemical Applications of Nuclear Reactions and Radiations*		**1. Radiation Chemistry – 2. Hot Atom Chemistry – 3. Mössbauer Spectroscopy – 4. Mössbauer Excitation by Synchrotron Radiation – 5. Positron Annihilation Spectroscopies – 6. Exotic Atoms and Muonium – 7. Neutron Scattering Methods in Chemistry – 8. Activation Analysis – 9. Applications of Neutron Generators – 10. Chemical Applications of Accelerators – 11. Tracer Technique**
Volume 4: *Radiochemistry and Radiopharmaceutical Chemistry in Life Sciences*		**1. Reactor-Produced Medical Radionuclides – 2. Cyclotron Production of Medical Radionuclides – 3. Radionuclide Generators – 4. ^{11}C: Labeling Chemistry and Labeled Compounds – 5. ^{18}F: Labeling Chemistry and Labeled Compounds – 6. ^{99m}Tc: Labeling Chemistry and Labeled Compounds – 7. Radioiodination Chemistry and Radioiodinated Compounds – 8. Radiometals (non-Tc, non-Re) and Bifunctional Labeling Chemistry – 9. Radionuclide Therapy – 10. Dosimetry and Biological Effects of Ionizing Radiation**
Volume 5: *Instrumentation, Separation Techniques, Environmental Issues*		**1. Radiation Detection – 2. Dosimetry Methods – 3. Particle Accelerators – 4. Technical Application of Nuclear Fission – 5. Isotope Separation – 6. Solvent Extraction and Ion Exchange in Radiochemistry – 7. Radiochemical Separations by Thermochromatography – 8. Environmental Radiation Protection – 9. Radioactive Waste Management**

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