

MASTER

CONF. 790321--1

ORGANIC RADIOPHARMACEUTICALS

RECENT ADVANCES

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Organic radiopharmaceuticals are considered in light of accelerator and nuclide production requirements, special problems relating to the carrier-free state, including terminology, of the special technology required to prepare and manipulate these compounds and new trends in compound design and synthesis. The emphasis is on medical cyclotrons and the positron emitting radionuclides, carbon-11, nitrogen-13, oxygen-15, and fluorine-18. New routes to synthetic precursors and organic compounds of high specific activity labeled with carbon-11, fluorine-18 and iodine-123 including monosaccharides, aromatic amines, neuroleptics, fatty acids, steroids, and other classes of compounds are discussed. Some compounds are considered in terms of the development and evaluation of structure-activity relationships and including some newer concepts such as metabolic trapping.

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