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(57) Abstract: The present invention concerns a HPLC separation method useful in the synthesis of [¹⁸F]-labelled compounds, including positron emission tomography (PET) tracers. The method of the invention addresses constraints of previous methods imposed by the needs of free 5 [18F]fluoride. The present invention provides a simplified process that enables rapid separation and analysis of free [¹⁸F]fluoride and chemical impurities in the synthesis of [¹⁸F]-labelled compounds.



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