Present status and perspective of radiochemical analysis of radionuclides in Nordic countries - DTU Orbit (06/12/2018)

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Radiochemical analysis plays a critical role in the determination of pure beta and alpha emitting radionuclides for environmental monitoring, radioecology, decommissioning, nuclear forensics and geological dating. A remarkable development on radiochemical analysis has been achieved in the past decades to meet the increased requirement. In the recent years, mass spectrometric techniques have been considerably improved and are widely employed for measurement of radionuclides. Analytical methods for rapid, automated and simultaneous determination of radionuclides have been extensively developed for emergency analysis. In Nordic countries, many laboratories are involved in the determination of radionuclides for various purposes, and a series of radiochemical analytical methods have been developed and applied. This article presents the present status and progress on radiochemical analysis of radionuclides, especially in Nordic countries; some requirements from nuclear industries and research organizations, as well as perspectives on the development of radiochemical analysis are discussed.

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