

Direct Chemical Speciation Using Synchrotron Based Techniques. Applications to Characterize Environmental and Biomaterials Samples.

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In process characterization of biomaterials and environmental samples, preparation of samples not always respects the original form of chemical species. Methodologies for direct speciation will overcome such problem and also validate results obtained by most conventional indirect speciation.

Based on the unique characteristics of Synchrotron light, related analytical techniques offer a range of possibilities including spectacular spectral definition that will make possible determination of complex mixtures by direct observation. Besides, distribution and mapping of chemical species on target samples contribute to best understanding of systems properties and behaviour.

Examples of samples characterization developed at different Synchrotron facilities will illustrate some of the possibilities of the related techniques.