

The development of hyper-spectral X-ray imaging for chemical and material science

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Hyperspectral imaging is a term most often associated with remote sensing methods such as satellite imaging where the recorded images contain information from a continuum of the electromagnetic spectrum recorded with a relatively narrow band width. Advances in both X-ray generation and collection now facilitate X-ray imaging methods based on scatter (such as Bragg diffraction & fluorescence) and transmission which can provide chemical and physical information from different regions within samples. This presentation will give an overview of these methods, showing what information can be yielded, current limitations and future prospects.