# Distribution and chemical forms of metals (Cd, Cs) in Arabidopsis thaliana plants and cells: a biological application of X-ray imaging

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Phytoextraction is a remediation strategy using higher plants to extract metals accumulated in soils. This technique requires the understanding of metal accumulation in plants. In this work, the capacity of Arabidopsis thaliana, a model plant, to accumulate cadmium (Cd) and caesium (Cs) has been studied. The scanning X-ray microscope on beamline ID21 at ESRF was used to characterize Cd and Cs distributions in both A. thaliana individual cells and plant tissues. Cd LIII-edge μXANES was also used to further identify the metal ligands in different regions of interest previously identified by X-ray imaging.