



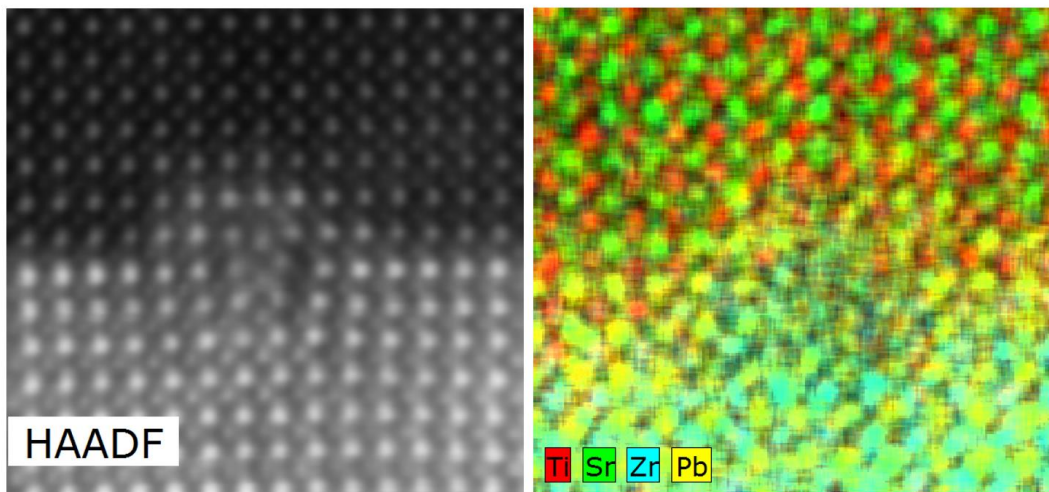
## Abstract

### Analytical Microscopy in Materials Science

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In the last few years the performance of electron microscopes has improved a lot due to technological improvements. The possibility to correct the spherical aberration has pushed the resolution limit below the Angstrom level. New types of X-ray detectors equipped with modern electronics allow the chemical characterization with higher speed and better accuracy. Experiments of which researchers have been dreaming of for decades have become possible. New preparation techniques like TEM lamellae preparation by focused ion beam allow the preparation of the “almost” perfect sample. In this presentation an overview of some state-of-the art techniques and their application in materials science will be presented.



Atomic elemental mapping ..!