

# A materials informatics framework to discover patterns in atom probe tomography data.

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Atom probe tomography (APT) is a unique technique that provides 3D elemental distribution with near atomic resolution for a given material. However, the large amount of data acquired during the experiment and the complexity of the 3D microstructures poses a challenge to fully quantify APT data. Here, taking APT measurements corresponding to a Fe-doped Sm-Co alloy as an example, we present an approach based on unsupervised machine learning to extract different phases in the data. On top of this method, we have built a PCA-based workflow to quantify in-plane compositional and thickness fluctuations, and relative orientations of the precipitates.

## Poster title

Poster

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