

F2: EDS

Double Your Capabilities

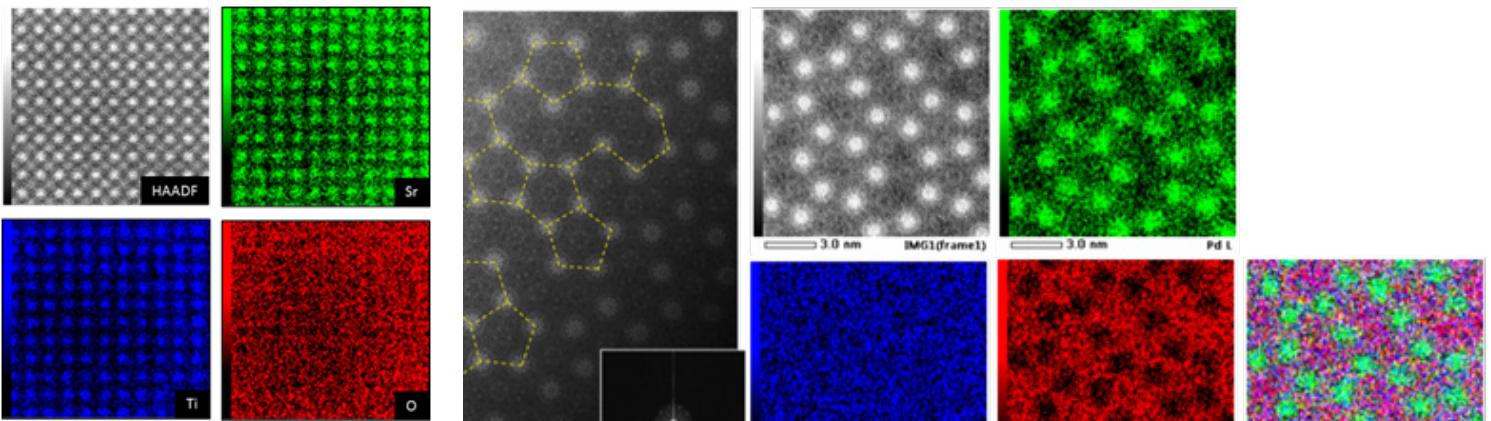


The F2 is a new concept of 20-200kV TEM equipped with a Cold FEG. This new generation of multi-purpose electron microscope is designed specifically to meet today's diversified needs.

Thanks to the high brightness and small probe size of the Cold FEG, the F2 is able to reach an unprecedented guaranteed resolution for STEM (0.14nm), EDS (1.7sr) and EELS (0.3eV) at the same time, creating a new class of high-end non-corrected TEM.

The F2 has a Dual SDD system, which is composed of two silicon drift detectors (SDD) with large sensor areas, resulting in a total solid angle of 1.7 sr. The combination of dual SDD system, the improved Cold FEG and the advanced scan system, gives the F2 TEM the ability to perform various techniques such as highly sensitive microanalysis and 3D-EDS, atomic resolution EDS maps, high speed mapping, light element mapping (from Be to U), study of beam sensitive samples, and more.

High-resolution analytical systems, such as Transmission Electron Microscopes (TEM) and Scanning Transmission Electron Microscopes (STEM) coupled with high solid-angle EDS system, are attracting increasing attention. Higher resolution and higher efficiency are required for modern systems, along with upgraded and intuitive ease of operation. As the Schottky was not able to meet all these needs, the Cold FEG F2 has been developed as a next-generation analytical electron microscope.



Atomic resolution EDS maps
Specimen: SrTiO₃

STEM Image and EDS maps - Specimen: AlPdMn
Courtesy of Pr. Emeritus K. Hiraga - Tohoku University