

FERA Plasma Ion Source Workstation: Applications and Possibilities

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The FERA is the latest Tescan Workstation featuring the plasma ion column in combination with a third generation field emission electron column. We will provide an overview of the ion source hardware and performance with a comparison with LMIG ion sources. We will also describe the unique and complementary analytical methods compatible with the FERA platform such as the integration of FIB-SEM with ToF-SIMS. FIB based ToF-SIMS represents a favorable nano-analytical method in terms of lateral resolution, analytical volume and detectability. Other interesting hardware accessories to discuss include in-situ AFM, the opportunity for cathode luminescence (CL) as a correlative microscopy method in biological applications.