

ERDA, the most powerful ion beam technique in materials science

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In paper Elastic Recoil Detection Analysis (ERDA) sounds like a materials scientist's dream: it can be used for quantitative depth profiling of elements from hydrogen to uranium, has nm depth resolution and does not require the use of reference samples. In addition, the instrumentation needed is not overwhelmingly complicated and even the smallest accelerators in IBA use can host an ERDA equipment. In the presentation, the performance figures of ERDA will be demonstrated but also critically questioned by means of real materials research examples from energy storage materials to ppm level dopant concentration measurements.