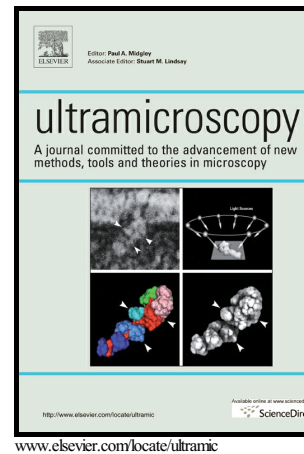


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**Effects of Detector Dead-time on Quantitative Analyses Involving Boron and Multi-Hit  
Detection Events in Atom Probe Tomography**

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**Abstract**

In atom probe tomography (APT), some elements tend to field evaporate preferentially in multi-hit detection events. Boron (B) is one such element. It is thought that a large fraction of the B signal may be lost during data acquisition and is not reported in the mass spectrum or in the 3-D APT reconstruction. Understanding the relationship between the field evaporation behavior of B

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