

Abstract Submitted  
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**Energy Spread Measurements of Cold Field Emitting HfC(310)**

SHAWN POLLARD, Linfield College, KEVIN KAGARICE, WILLIAM MACKIE, Applied Physics Technologies, Inc. — Cold field emitting HfC(310) has been researched as a potential next generation electron source for high resolution electron microscopy. Energy spread measurements were taken using a retarding potential energy analyzer. Measurements were taken over a range of angular intensities, varying from 5  $\mu\text{A}/\text{Sr}$  to 100  $\mu\text{A}/\text{Sr}$ , and compared to theoretical values determined numerically using a software program. Experimental data was compared with cold field W(100), a commercially available cold field emission source currently used in high resolution electron microscopy.

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