Characterization of Materials 635:309

NAME______See due date on Website Syllabus

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ANSWER CLEARLY ON THIS PAGE

- 1. Calculate the velocity (in m/s) and kinetic energy (in J) with which the electrons strike a target of an x-ray tube operated at 40,000 volts. What is the short wavelength limit of the continuous spectrum emitted?
- 2. In an XRF using WDS analysis, a LiF single crystal is used as the diffracting crystal in wavelength dispersive analysis. This crystal is oriented so that its planes with d spacing =

2.014Å do the diffracting. Calculate the location of the K_{α} peaks in 20 for a sample containing Fe, Ag, and Se.