Characterization of Materials 635:309

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See due date on Website Syllabus

ANSWER ON THIS PAGE ONLY

USE TABLE 1 (Energy levels of electrons...) on the website to address questions 1-3 below:

1. How much energy must an incoming particle (electron in this case) have in order to eject a K shell electron from Ge?

ANS:_____

2. What is the energy of the Kα x-ray for Mn, assuming the transition comes from its L_{II} shell?

ANS:_____

2(b). Which Kα x-ray is this, $K\alpha_1$ or $K\alpha_2$?

ANS._____

3. Draw the Bohr model for the Fe atom, with only the K, L, and M (up to M_{II}) levels included, with numbers.

4. Calculate the frequency (per second) and energy (in joules) of x-rays of wavelength 0.71Å (MoKα), 2.29Å (Cr Kα) and 1.54Å (Cu Kα)?