

NAME _____

HW 5 See website for due date

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1. Ni is used as a filter for CuK_α in an x-ray diffractometer. The Ni has a density of 9 g/cm^3 and a thickness of 0.002 cm . What fraction of the original beam is transmitted if the x-rays are:
 - (a) CuK_α
 - (b) CuK_β
2. Assuming the same density and thickness as in (1), but there was, inadvertently, some Co contamination in the Ni filter. How much Co must be in the Ni filter if the measured transmitted fraction of CuK_α x-rays is only 30% of the original, unfiltered, beam.