

NAME \_\_\_\_\_

Dr. Garofalini

See due date on Website Syllabus

**ANSWER ON THIS PAGE ONLY**

1. (a) Calculate the mass absorption coefficients of air for Cr K $\alpha$  radiation. Assume that air contains 80% nitrogen and 20% oxygen by weight and has a density of  $1.29 \times 10^{-3}$  g/cc.  
(b) What is the transmission factor of Cr K $\alpha$  radiation reaching the doorway of a room in which the x-ray source is 24 feet away?

**ANSWER ON THIS PAGE**