

HW 9-5 Soln)

Moseley's fitting function is

$$\frac{1}{\lambda_{L\alpha}} = \frac{5}{36} R_H (Z - 7.4)^2 .$$

$$Z = 7.4 + \sqrt{\frac{36}{5\lambda R_H}} = 7.4 + \sqrt{\frac{36}{5(1.39121 \times 10^{-10})(1.097 \times 10^7)}} = 76$$

The element is **osmium**.