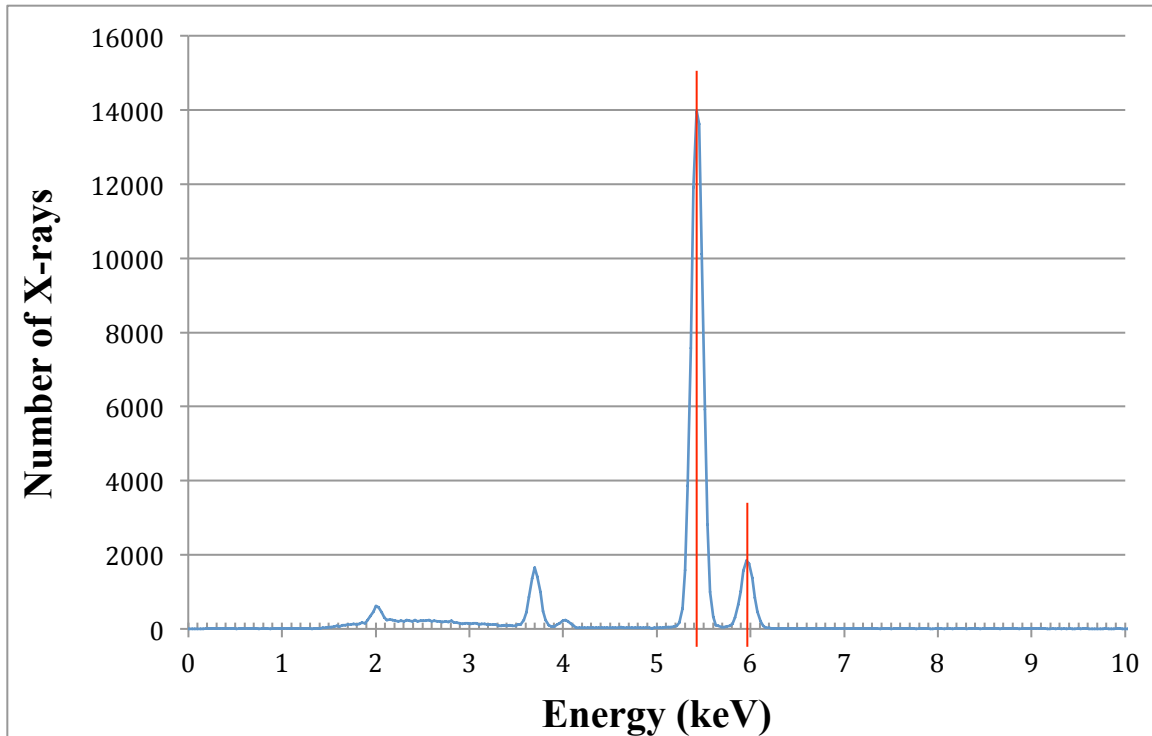


Name _____
PIXE Homework #2 - Physics 100
Union College Fall 2017

1. Describe the PIXE process.
2. What are the K_α and K_β transition energies for the following elements: ${}^{19}_9F$, ${}^{59}_{27}Co$, and ${}^{197}_{79}Au$? (Please use the equations given in the lecture and not the table of x-ray energies to do the calculation.)
3. What is the ratio of the K_α energies of ${}^{238}_{92}U$ to ${}^{12}_6C$?
4. Given the PIXE spectrum of a single element standard shown below, what are the elements?



5. Given the *PIXE* spectrum of a single element standard shown below, what are the elements?

