GROUP EXERCISE 4-0: PERIODIC TABLE DATA SCIENCE

In-class project, April 28

For this exercise, we will use data science methods to examine the most fundamental materials data set: The Periodic Table of the Elements. We'll start by loading the data and performing a simple correlation analysis. You'll build on these in the homework to perform more in-depth analyses.

1. For this section of the course, we will be using a new set of Python libraries, widely used for data science. To ensure access to these packages, you will need to augment the Anaconda environment we installed in HW0. So, just as you did in HW0, configure a new conda environment using the included **env_cross_platform_ds.yaml** file.

2. Python notebooks, such as Jupyter notebooks, are often used as convenient platforms for data exploration and visualization. Open the Jupyter notebook template **GE4-0.ipynb** and follow the prompts to load the data set and perform the correlation analysis. (You will turn in the pairwise correlation plot you generate with HW8.)