Papers:

**PIXE analysis of synthetic turf** by Vineyard et al.,

*Another pathway for firefighter exposure to per- and polyfluoroalkyl substances: firefighter textiles* by Peaslee et al.

Questions:

1) How is the proton beam energy selected for PIXE? What is the useful energy range? [Nisha]

2) Why are the Br peaks at different energies in Figures 3 and 4? [Holly]

3) How are different elements identified using PIGE? [Kristyn]

4) How does a silicon drift detector work? [Shiv]

5) Why is the aluminum foil placed in between the sample and the X-ray detector? Why is 80microns chosen for the thickness? [Mahesh]

6) Why can’t the PIGE set-up in Peaslee et al measure fluorine concentrations greater than 30%? How would the set-up have to be modified to allow greater concentrations to be measured? [Justin W.]

7) What are some other examples of PIXE and PIGE applications? [Alexandra]

8) What are the advantages and disadvantages of PIXE and PIGE compared to chemical analysis techniques? [Gula]

9) What are other nuclear-physics based elemental/isotopic analysis methods? And what are their strengths and limitations? [Joey]