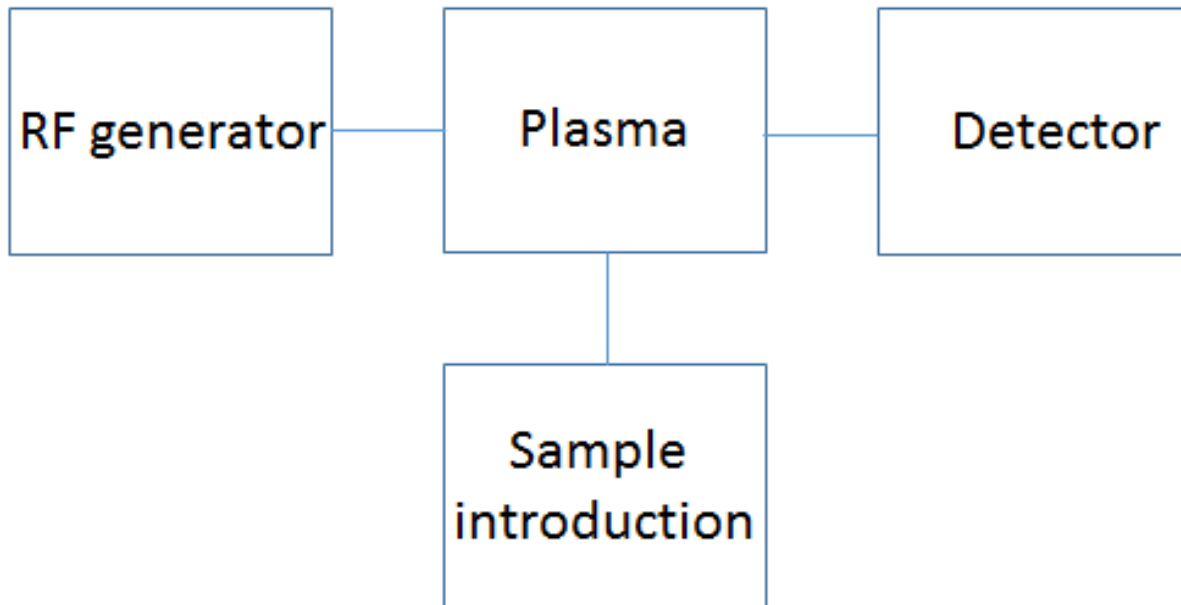


Question 1:

Describe the role of components of an ICP-OES instrument as shown in this picture.



Question 2:

Describe 3 differences between axial and radial viewing in ICP-OES.

Question 3:

When analyzing a Mg^{2+} sample by ICP-OES, a chemist finds that all Mg^{2+} emission lines have interferences from the sample's matrix components. Suggest a method for the analysis.

Question 4:

Using the ICP OES calibration curve below, determine the % Cu in a 250 mg supplement pill, given the following procedure:

- The whole pill was crushed and homogenized, then dissolved in 1 L of conc. HNO_3 and digested overnight.
- 7.5 mL of this solution were diluted to 25 mL
- ICP-OES measurement = 960550 intensity

