

3.3 Atomic Emission Spectroscopy (AES) Results for Sodium (Na), Calcium (Ca), and Magnesium (Mg) in Organic and Non-Organic Banana Samples:

3.3.1 Sodium (Na)

Atomic Emission Spectroscopy (AES) was used to measure the sodium content in banana samples that were both organic and non-organic. Four sodium standards with concentrations ranging from 78.13 ppb to 1250 ppb were used for calibration. By using the standards' intensity values to create a calibration curve, it was possible to determine the samples' sodium concentrations using the intensities that were measured. Table 3.3.1 displays the standards and their related intensity values, and Graph 3.3.2 displays the calibration curve that results from given values.

Table 5: Sodium Standards and Intensity Values for Calibration Curve

Standards	Concentration (ppb)	Intensity
Blank	0	0.12
Standard 1	78.13	233712.63
Standard 2	312.5	408820.53
Standard 3	625	708053.59
Standard 4	1250	1252440.07

Graph 3.1 Calibration Curve for Sodium Concentration via AES

