

Determining Mercury Content in Fish Oil Capsules Using Inductively Coupled Plasma-Optical Emission Spectrometry

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Introduction

The purpose of this study is to determine whether the three fish oil brands used contained a significant concentration of mercury. Samples of 15,000mg were processed through an Inductively Coupled Plasma Optical Emission Spectroscopy (ICP) to experimentally quantify the projected concentrations of mercury.

What is an ICP?

An ICP uses electrically neutral partially ionized argon gas to excite particles, emitting specific wavelengths of light while relaxing particles to lower energy levels. This wavelength can be quantified to find the concentration of mercury in the fish oil supplements, displayed on a calibration curve. In the case of our experiment, 4 standard solutions of known concentrations of mercury will be used in determining the mercury