

Prelab Assignment – Experiment 4: Qualitative Analysis of Cations, Week 2

Use your data from Week 1 to devise a scheme for separating and identifying the six possible cations. This scheme should take advantage of the solubility differences among the salts, hydroxides, and complexes, the redox properties of the cations, and the confirmatory tests. Select a scheme of separation and identification that is effective, that entails the fewest steps, and that achieves the cleanest separations. Your scheme should be presented as a flow diagram that references the appropriate balanced chemical reactions that you completed for the Week 1 prelab assignment. A sample separation scheme for a different set of cations and test reagents is shown below (with no balanced equations).

