

Colorimetric Quantification of Uranium in Drinking Water

Description:

This technology features novel methods, materials and systems to determine the uranium concentration in water samples. These methods include a concentration step and a complexation step, but require little technical training and are highly-sensitive. Uranium concentration can be carried out according to an extraction chromatographic process and complexation can chemically bind uranium with a detectable substance such that the formed substance is visually detectable.

These methods can detect uranium contamination down to levels even below the maximum contamination level (MCL) as established by the EPA. These systems are relatively simple and cost-effective. The methods are rapid and require little technical training in chemical analysis techniques to perform, allowing it to be used by consumers in the laboratory or in the field.

Benefits

- Rapid methods requiring little technical training in chemical analysis techniques
- Simple and cost-effective
- Can detect uranium contamination down to levels even below the maximum contamination level (MCL) as established by the EPA
- Allows for use by consumers in the laboratory or in the field

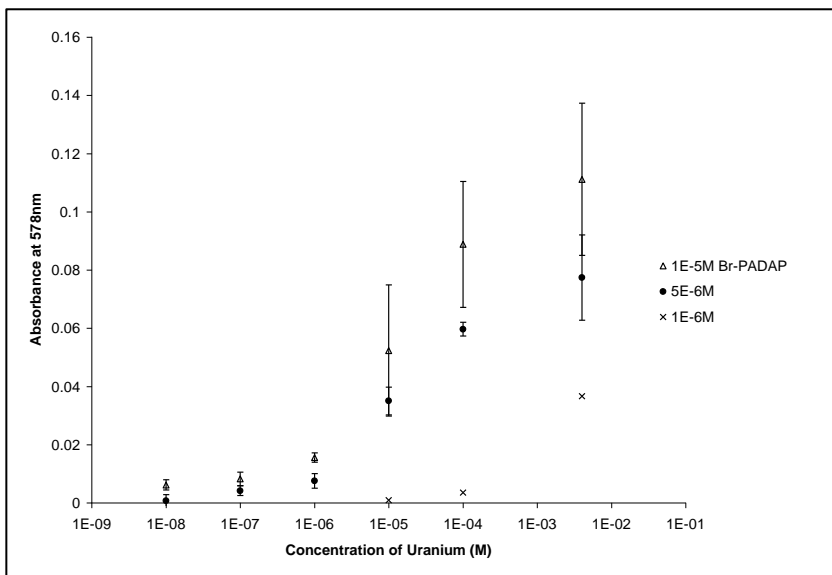


Figure 1: Detection of varying uranium concentrations, showing high sensitivity, tested with three different levels of the invention reagent added. Note that detection is effective at very low levels of the reagent, indicating high

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