

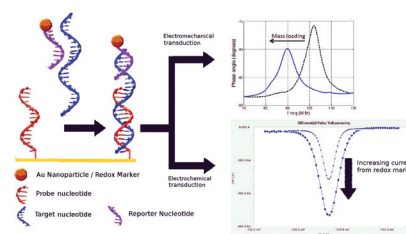
In this issue

Ruben Rosario and Raj Mutharasan
Nucleic acid electrochemical and electromechanical biosensors: a review of techniques and developments

DOI 10.1515/revac-2014-0017
 Rev Anal Chem 2014; 33(4): 213–230

Review: This review covers the last decade's important developments in nucleic acid sensing in the areas of pathogen detection within water, food, and clinical samples.

Keywords: biosensor; cantilever; genosensor; nucleic acid detection; quartz crystal microbalance; voltammetry.

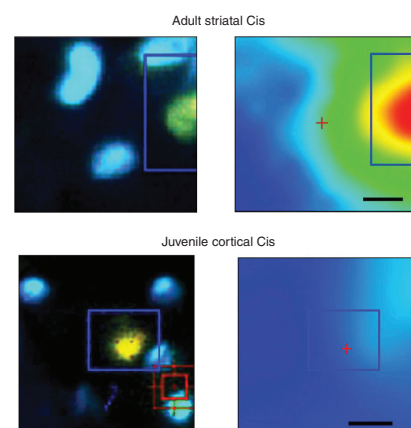


Guylaine Hoffner, William André, Christophe Sandt and Philippe Djian
Synchrotron-based infrared spectroscopy brings to light the structure of protein aggregates in neurodegenerative diseases

DOI 10.1515/revac-2014-0016
 Rev Anal Chem 2014; 33(4): 231–243

Review: FTIR combined with synchrotron radiation is a powerful technique to assess in human brain the structure of the aggregated proteins thought to be at the root of a number of neurological diseases.

Keywords: Alzheimer; amyloid; Huntington; Parkinson; prion.

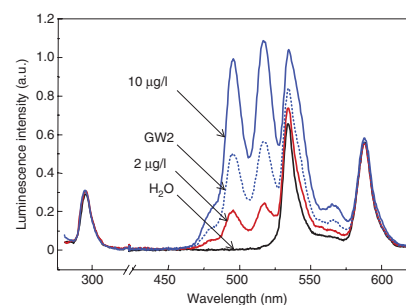


Euo Chang Jung, Hye-Ryun Cho, Wansik Cha, Jong-Ho Park and Min Hoon Baik
Uranium determination in groundwater using laser spectroscopy

DOI 10.1515/revac-2014-0013
 Rev Anal Chem 2014; 33(4): 245–254

Review: In the ratiometric technique, which is based on the simultaneous measurement of U(VI) luminescence and Raman scattering of water, the calibration curve can be obtained by measuring the ratio of the luminescence intensity of U(VI) to the Raman scattering intensity of water for the quantitative determination of uranium.

Keywords: groundwater; hexavalent uranium ions; laser spectroscopy; luminescence; uranium determination.



Honglan Qi, Qian Dang, Manman Dong, Hongfang Gao and Min Li
Electrogenerated chemiluminescence peptide-based bioassay

DOI 10.1515/revac-2014-0015
Rev Anal Chem 2014; 33(4): 255–263

Review: The advances, challenges, and prospects of the ECL peptide-based bioassay using peptide as the molecular recognition element were reviewed.

Keywords: bioassay; electrogenerated chemiluminescence; peptide.

