

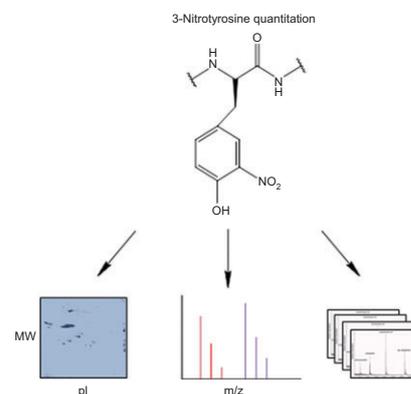
In this issue

Adam R. Evans and Renā A.S. Robinson
Proteomics quantification of protein nitration

DOI 10.1515/revac-2012-0041
 Rev Anal Chem 2013; 32(3): 173–187

Review: This is a comprehensive review covering proteomics techniques for quantification of 3-nitrotyrosine.

Keywords: 3-nitrotyrosine; mass spectrometry; nitration; proteomics; redox proteomics.



Suzanne R. Kalb and John R. Barr
Mass spectrometric identification and differentiation of botulinum neurotoxins through toxin proteomics

DOI 10.1515/revac-2013-0013
 Rev Anal Chem 2013; 32(3): 189–196

Review: This manuscript reviews the literature to date involving mass spectrometric identification and differentiation of botulinum neurotoxin through toxin proteomics.

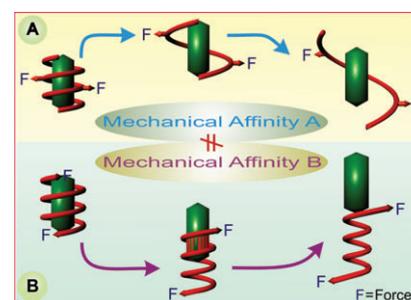
Keywords: botulinum neurotoxin; mass spectrometry; protein toxins; proteomics.

Deepak Koirala, Philip M. Yangyuoru and Hanbin Mao
Mechanical affinity as a new metrics to evaluate binding events

DOI 10.1515/revac-2013-0004
 Rev Anal Chem 2013; 32(3): 197–208

Review: Unlike chemical affinity, which is a measurement of thermodynamics, mechanical affinity is proposed to be a new universal metrics to delineate the mechanical, kinetic, and thermodynamic properties of ligand-receptor binding interactions.

Keywords: chemical affinity; ligand-receptor interaction; mechanical affinity; mechanical stability; single-molecule methods.



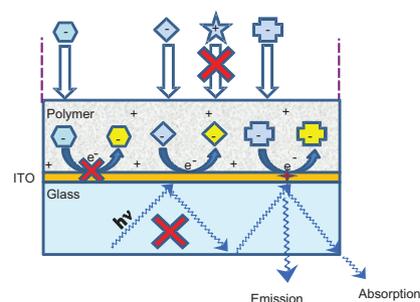
Sayandev Chatterjee, Samuel A. Bryan, Carl J. Seliskar and William R. Heineman

Three-component spectroelectrochemical sensor module for the detection of pertechnetate (TcO_4^-)

DOI 10.1515/revac-2013-0001
Rev Anal Chem 2013; 32(3): 209–224

Review: This review summarizes the ability of the three-component spectroelectrochemical sensor module to detect analytes of interest in the presence of various interfering species in environmental samples and illustrates the rationale behind the choice of the sensor module for the effective detection of technetium in the environment.

Keywords: pertechnetate; technetium; three-component sensor.

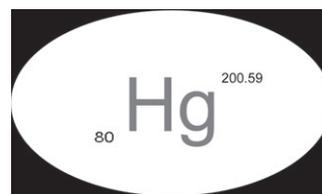


Lakshmi Narayana Suvarapu, Young-Kyo Seo and Sung-Ok Baek
Speciation and determination of mercury by various analytical techniques

DOI 10.1515/revac-2013-0003
Rev Anal Chem 2013; 32(3): 225–245

Review: The article reviews mercury speciation and determination studies based on various analytical methods.

Keywords: analytical methods; environmental and biological samples; mercury; methylmercury.



Xuefeng Hu and Bulent Mutus
Electrochemical detection of sulfide

DOI 10.1515/revac-2013-0008
Rev Anal Chem 2013; 32(3): 247–256

Review: This report provides an up-to-date review of the electrochemical detection of sulfide; it details different electrochemical approaches investigated between 2010 and 2012 together with the development of various electrodes.

Keywords: amperometry; anodic stripping voltammetry; electrochemical detection; nanomaterials; sulfide.

