Method for Detecting Oxidants and Reductants in A Sample

Abstract

There is provided a method to detect oxidants and reductants simultaneously by reaction of a sample with a substrate and observing a shift in fluorescence color. Metal nanoclusters templated with a DNA sequence can be used in the disclosed method. The method can be employed in assays which can be run in a one-pot system to evaluate the unknown redox situation of a sample in real time. The assays may have a use for detecting free radicals or antioxidants potentially relating to aging processes or diseases as well as for evaluating the shelf-life of a food, beverage, health care, personal care or sports product.

(No suitable figure)