

Title (en)

CHEMILUMINESCENT ASSAY METHODS AND DEVICES FOR DETECTING TARGET ANALYTES

Title (de)

CHEMILUMINESZIERENDE TESTVERFAHREN UND VORRICHTUNGEN ZUM NACHWEIS VON ZIELANALYTEN

Title (fr)

PROCEDES ET DISPOSITIFS DE DOSAGE PAR CHIMILUMINESCENCE POUR DETECTER DES ANALYTES CIBLES

Publication

**EP 0882230 A1 19981209 (EN)**

Application

**EP 96940503 A 19961118**

Priority

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- US 57762495 A 19951222

Abstract (en)

[origin: WO9719353A1] A sampling-test device and a method for its use provide rapid and easy detection of analytes. The device and method utilize chemiluminescence for sensitive detection and should find applications in such areas as the detection of bacteria on surfaces. The test device comprises a sampling portion and a reagent portion. The sampling portion is an adsorbent that collects analytes from a test sample such as a surface or volume of a liquid. The reagent portion comprises an adsorbent material that holds one or more chemiluminescent components such as luciferase enzyme and cofactors in a dry state. The device optionally comprises a movable shield to protect the sampling portion from cross contamination. In a preferred embodiment the sampling portion is swabbed over a contaminated surface. A bacteriolytic solution is then added to the adsorbent and releases ATP from sampled bacteria found there. The ATP diffuses into the reagent portion of the device. As it diffuses, luciferase and other cofactors present in the reagent portion react with it. Light is produced by chemiluminescence in response to bacteria originally present in the sample. Light can be detected, for example, electronically by insertion of the device into a mating light detector box, or chemically, for example, by an optional light detection portion comprised of a film such as an instant photographic film.

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