Date Rape Drug Detection (Ramot)

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Technology

A low cost, easy to use and utterly reliable test kit for the detection of the most widely used date rape drugs. A sensor containing a tiny amount of solvent is exposed to a beverage. If the drug is present, its chemical reaction with the solvent will cause a change in the optical transparency of the solvent.
An optical signal is measured before and after addition of the beverage and the presence of very low doses is quickly detected.

Background

Drug-facilitated sexual assault is a growing problem the world over. According to data published by the U.S. Department of Justice, in 2007 some 200,000 women were raped in the United States alone with the aid of date rape drugs. Only 16 percent of the victims reported the incidents to the authorities.
Experts believe that the current prevalence of date rape is up to twice the figure cited above, encompassing half a million women. The two most prevalent drugs used are Ketamine and GHB (gamma hydroxybutyric acid). These drugs are colorless, odorless, easily obtainable and dissolve easily into beverages. One of the difficulties facing law enforcement teams is the fact that traces of the drug are quickly evacuated by the body, leaving no chemical evidence.

Advantages

- Current methods for real time detection are based on detecting color change of a detecting medium.
- This test is time consuming, cumbersome, costly (several $US per test) and difficult in low light environments. Furthermore, colored drinks can skew the results. TAU's test is quick, easy, low cost,
  foolproof and immune to the optical environment.

Stage of Development

Double blind tests were performed on spiked and unspiked drinks and cocktails. In 100% of the cases, the results were correct. The project is ready for product engineering to generate a low cost reliable product for the market.

Patents

A US provisional patent has been submitted
watch related video:

http://www.ramot.org/media-center/video-gallery/ramot/media/24710

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