

## Party Safe Alcohol Tester

### The technology

Researchers at Virginia Commonwealth University have developed a novel device that rapidly detects alcohol concentration in mixed drinks. This small device, about the size of an e-cigarette, is portable and can be easily stored in pant pockets or a purse. To determine alcohol concentration, the pen-like device can be placed in the liquid for a small sample intake (0.5mL sample size) where sensors can analyze concentration and display warnings based on the concentration of alcohol. Testing has been conducted to show a differentiation in concentrations found by a change in pressure. Based on testing with ranging alcohol concentration solutions, VCU inventors found a clear differentiation in pressure at each concentration (Figure 1).

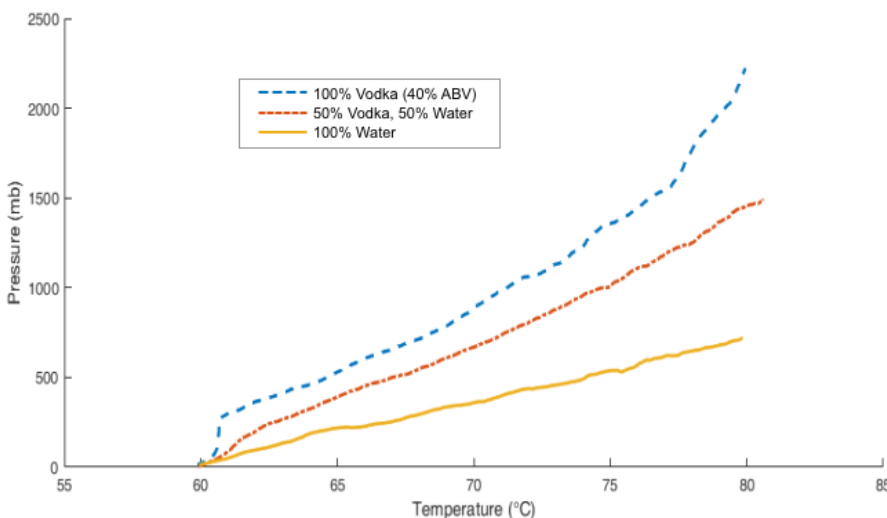


Figure 1. A differentiation is shown in the concentrations found by a change in pressure.

### Benefits

- » Small, portable pen-like device
- » Easy to use and rapid (within 30 seconds) concentration tester
- » Clear differentiation in alcohol solutions

### Applications

- » To determine alcohol content in mixed drink
- » Law enforcement aid
- » Concentration tester for home-brewing

#### Patent status:

Patent issued: U.S. rights are available.  
15/463,064

#### License status:

This technology is available for licensing to industry for further development and commercialization.

#### Category:

Engineering and Physical Science

#### VCU Tech #:

15-092

#### Investigators:

[Boris Solomonov](#)

#### Prototype has been tested

#### Contact us about this technology

Brent Fagg, MS  
Licensing Associate  
[bfagg@vcu.edu](mailto:bfagg@vcu.edu)  
(804) 827-2211