



## Colorado School of Mines Office for Technology Transfer

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### **Magnetic Nanoparticle Capillary Flow as a Replacement for Lateral Flow Chromatography**

Drs. Kent Voorhees, Roy Mondesire and Christopher Cox

Department of Chemistry and Geochemistry

**Description:** This invention looks at method to detect targeted analytes. The method most often used now is Lateral Flow Chromatography (LFC) which has many drawbacks including: the need for extensive optimization, sensitivity, specificity, lack of quantitative data and extensive component selection. The reported method uses Surface Enhanced Raman Spectroscopy (SERS) and antibodies specific to the targeted analyte. These antibodies are easily attached to beads (one specific for SERS and one nano-magnet). The reported method will report both quantitative and qualitative results in a rapid fashion.

#### **Potential Areas of Application**

- Virus and bacteria detection
- Medical testing
- Agriculture
- Home pregnancy tests

#### **Main Advantages of this Invention**

- Ability to receive quantitative and qualitative information quickly
- No need for the nitrocellulose membrane required for LFC
- More specific and sensitive than LFC
- Simpler than LFC

**Intellectual Property Status:** Provisional Patent filed 12/7/2010

**Provisional Patent ID:** US 61/420411

**Opportunity:** We are seeking an exclusive or non-exclusive licensee for marketing, manufacturing, and sale of this technology.

#### **Contact**

William Vaughan  
Director, Technology Transfer  
Colorado School of Mines  
1500 Illinois Street  
Guggenheim Hall, Suite 314  
Golden, CO 80401  
Phone: 303.384.2555  
Fax: 303.273.3244  
Email: wvaughan@mines.edu