

Micro & Nano Patterned Multiplex Biomaterials

Applications

- DNA assays
- Protein assays
- Micro-fluidic integrated devices
- Low volume applications

Problem & Solution

Current technologies for DNA assays are limited to the micrometre scale, increasing the footprint required for full genome screening.

Patterning of stable chemicals as binding/grafting sites for biomolecules at the nanometre scale. This technology benefits from extended shelf-life, high throughput and low cost. Biomolecules are grafted to the pattern when the assay is performed. Biomolecule targets include proteins and DNA.

Benefits

- Low cost
- Commercial microcontact printer compatible
- High feature resolution
- Increased shelf life
- High speed printing

Patent Pending

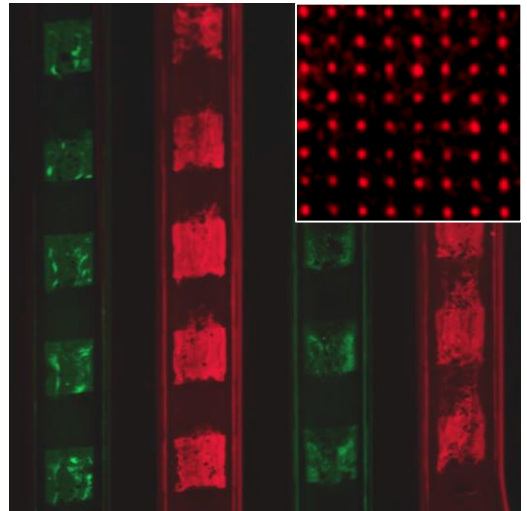
Keywords

Bio-assay, surface patterning, microcontact printing, nanocontact printing

For more information

Business Development/Technology Licensing Section

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Devices are fabricated as an array of ink having superior life-time to biomolecules. Biomolecules are grafted at the time of use. Main figure shows a prototype multiplex device integrated with microfluidic delivery, green and red represent two different proteins. Inset shows array of 200 nm dots of antibodies.