Plasma Induced Nanowrinkles

Tech ID: 22232 / UC Case 2011-359-0

BRIEF DESCRIPTION

Leveraging from microfabrication techniques originally developed for the microelectronics industry, researchers have been able to create simple designs such as well-defined and repetitive patterns of grooves, ridges, pits, and waves.Techniques such as photolithography, electron-beam lithography, colloidal lithography, electrospinning, and nanoimprinting are popular methods for fabricating micro and nano topographical features.However, the need for large capital investments and engineering expertise has prevented the widespread use of these fabrication methods in common biological laboratories.

Researchers at the University of California, Irvine have developed an ultra-rapid, robust, and inexpensive fabrication method to create multiscaled grooves, ranging from micron to nanometer in size, as biomimetic cell culture substrates.This method only takes a few minutes to perform and does not require any metal deposition.In addition, the size of the nanowrinkles is easily tuned for a multitude of biological applications.

SUGGESTED USES

The method may be used to create nanowrinkles in a fast, inexpensive, and precise manner for biological applications, without the use of expensive equipment.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	8,828,302	09/09/2014	2011-359

CONTACT

Alvin Viray
aviray@uci.edu
tel: 949-824-3104.



OTHER INFORMATION

KEYWORDS

nanowrinkles, shrink, lithography, photolithography, biomimetic

CATEGORIZED AS

- **Engineering**
  - Engineering
- **Materials & Chemicals**
  - Nanomaterials
  - Thin Films
- **Medical**
  - Other
  - Research Tools
- **Nanotechnology**
  - NanoBio
  - Other

RELATED CASES

2011-359-0

UCI Beall
Applied Innovation

5270 California Avenue / Irvine,CA
92697-7700 / Tel: 949.824.2683

© 2012 - 2014, The Regents of the University of California
Terms of use
Privacy Notice