

NANO STRUCTURE FOR ADHESION, FRICTION AND CONDUCTION

Tech ID: 16921 / UC Case 2000-046-0

ABSTRACT

Researchers at the University of California, Berkeley have applied the principles of intermolecular attractive forces to develop nano-structures with extraordinary adhesive properties. These biomimetically inspired nano-structures can stick to wet, dry, rough or smooth surfaces, and can be peeled-off and re-used; they are also self-cleaning, leave no residue, and are bio-compatible. The original research was published in Nature (2000.405:681-5) and PNAS (2002.99:12252-6).

The University has filed US and international patent applications that broadly cover this inventive concept as well as its manufacturing methods and end-user applications.

APPLICATIONS

Applications for these nano-structures are vast -- covering virtually all adhesive and fastening markets, with the potential to create new applications.

ADVANTAGES

- Sticks to wet, dry, rough and smooth surfaces
- Peels-off, leaves no residue, and is re-usable
- Self-cleaning
- Bio-compatible

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	8,815,385	08/26/2014	2000-046

CONTACT

Michael Cohen
mcohen@berkeley.edu
tel: 510-643-4218.



OTHER INFORMATION

KEYWORDS

materials, assembly and packaging,
electronics packaging, engineering,
medical devices, surgical, polymers,
general engineering

CATEGORIZED AS

- » **Materials & Chemicals**
- » Electronics Packaging
- » Polymers
- » **Medical**
- » Devices
- » **Nanotechnology**
- » Materials
- » **Semiconductors**
- » Assembly and Packaging

RELATED CASES

2000-046-0

RELATED TECHNOLOGIES

- Nano Structure With Compliant Angled Hairs And Filter Fabrication Method
- Nano Structure For Friction Enhancement
- Nano Structure For Electrical Interconnect Including Integrated Circuit Mounting
- Nano Structure With Side Contact For Friction Enhancement
- Nano Structure For Actively Switchable Adhesion
- Nano Structure With Compliant Support For Adhesion
- Nano Structure With Spatulae For Permanent Adhesion



University of California, Berkeley Office of Technology Licensing

2150 Shattuck Avenue, Suite 510, Berkeley, CA 94704

Tel: 510.643.7201 | Fax: 510.642.4566

ipira.berkeley.edu/ | otl-feedback@lists.berkeley.edu

© 2009 - 2014, The Regents of the University of California

[Terms of use](#) | [Privacy Notice](#)