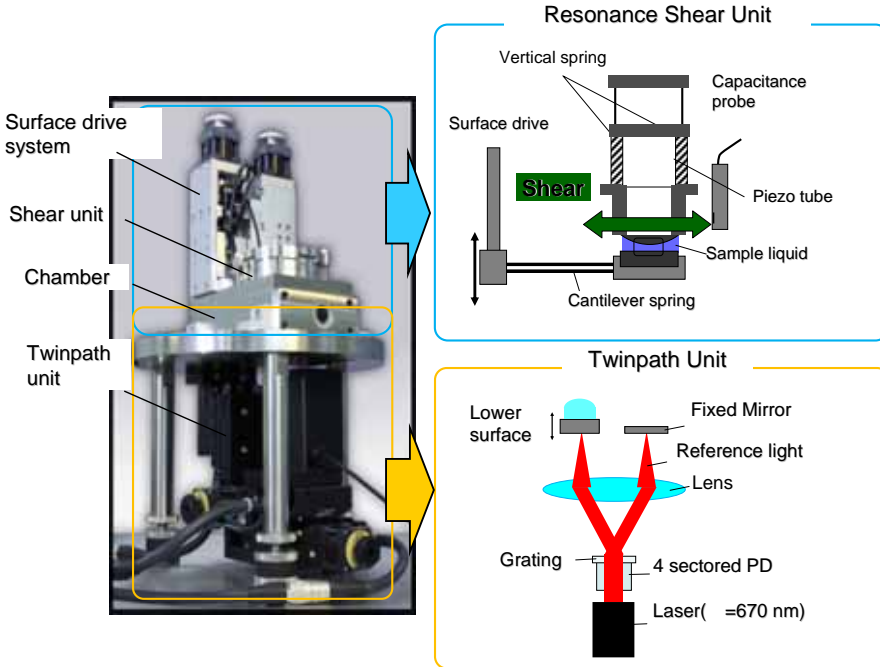


Resonance Shear Measurement System (RSM)

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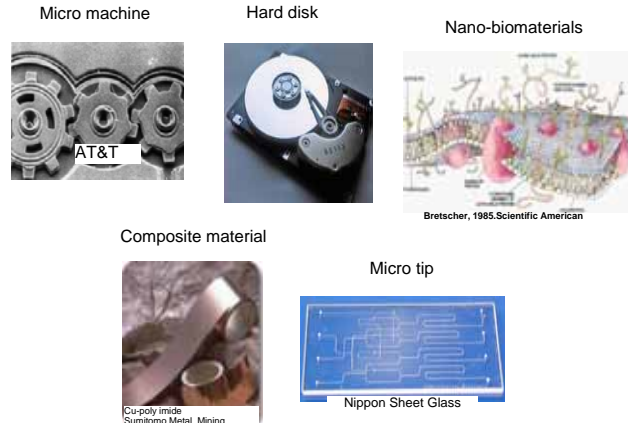
1. RSM Equipment Overview

- A unique method of measuring both surface force and resonance shear for use in evaluating liquid properties in nano spaces

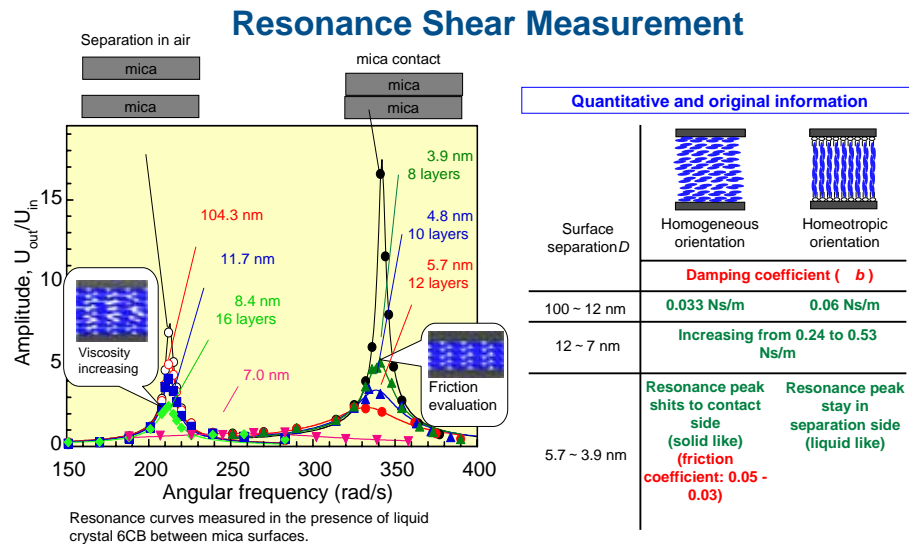
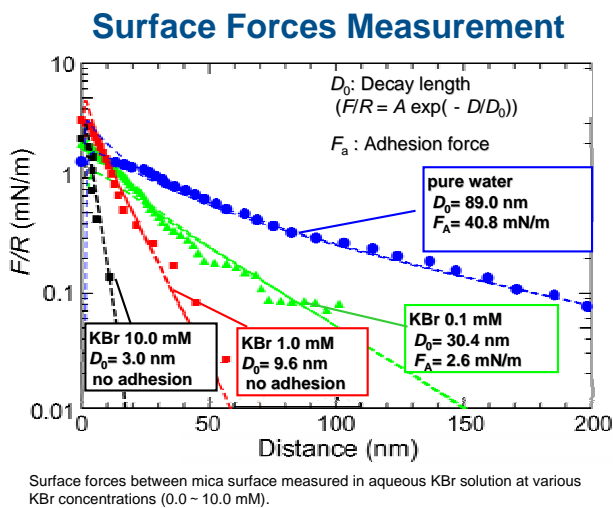


Applications

Manufacturers of cosmetics, lubricants, paint sealants, and materials for nano-devices and machines.



2. Example Data



Quantitative and original information		
Surface separation D	Homogeneous orientation	Homeotropic orientation
100 - 12 nm	0.033 Ns/m	0.06 Ns/m
12 - 7 nm	Increasing from 0.24 to 0.53 Ns/m	
5.7 - 3.9 nm	Resonance peak shifts to contact side (solid like) (friction coefficient: 0.05 - 0.03)	Resonance peak stay in separation side (liquid like)

- Surface potential and charges, adsorption properties such as steric structure, origin of interaction force can be evaluated.
- Liquid structuring, rheological properties (viscosity), and tribological properties (friction and lubrication) in nano-confined liquid can be evaluated.

3. Patent status & Patent owner contact

Patent license is available.

Patent No. : US 5705738, PCT/JP2006/319103

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