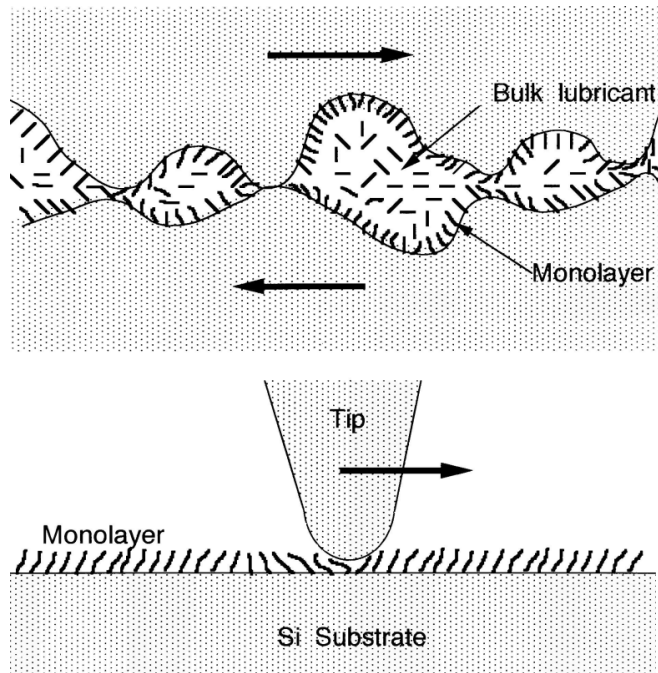
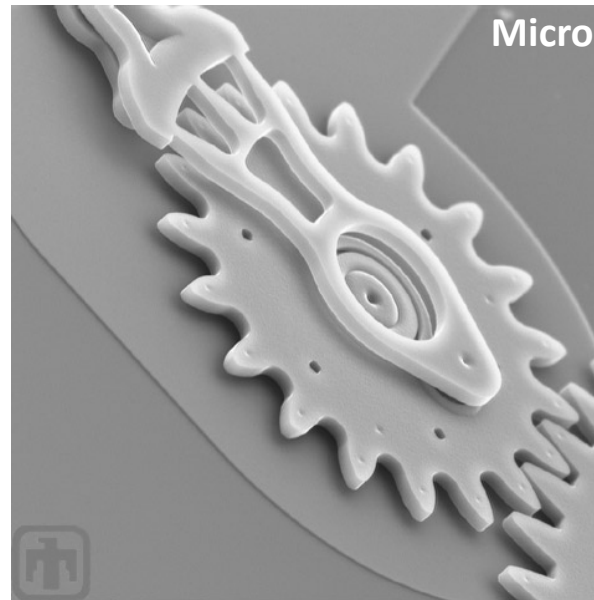


Atomic force microscope can be used to measure friction at nanoscale (Friction Force Microscopy)



Molecular Lubricants

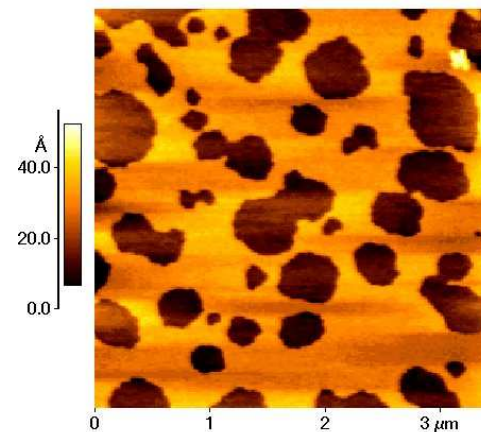
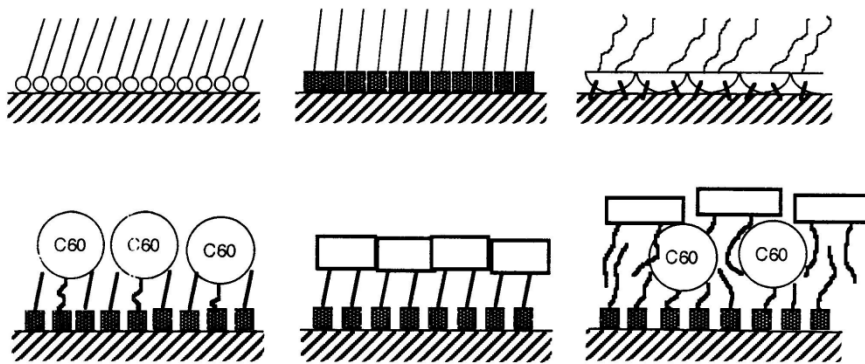


Micro-electro-mechanical Systems (MEMS) are small devices, which may have micrometer size gears or other rotating or sliding parts and require special lubricants for functioning

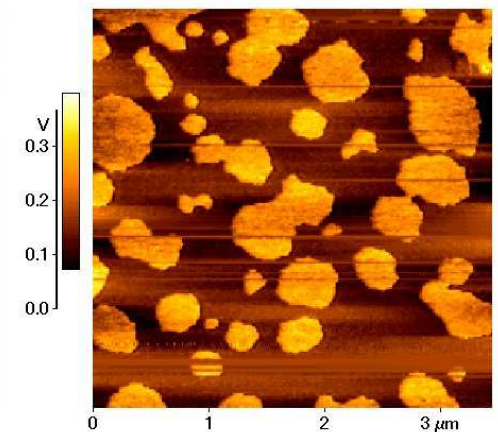
Courtesy of Sandia National Laboratories, SUMMIT(TM) Technologies, www.mems.sandia.gov

Langmuir-Blodgett monolayer of stearic acid on Si: 30 times reduction of the friction coefficient!

Design of advanced organic lubricants for MEMS. Langmuir-Blodgett versus self-assembled films.



Topography



Friction Force Microscopy

V.Bliznyuk, M.Everson, V.Tsukruk, J. Tribology, **120**,1998