

Metallic-Glass Coating: **A Great Nano-material for Various Application**

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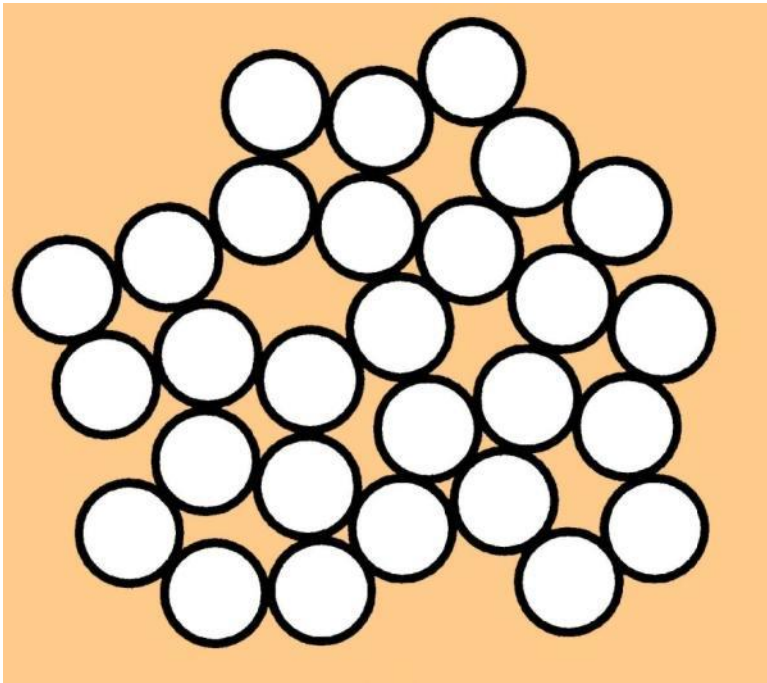
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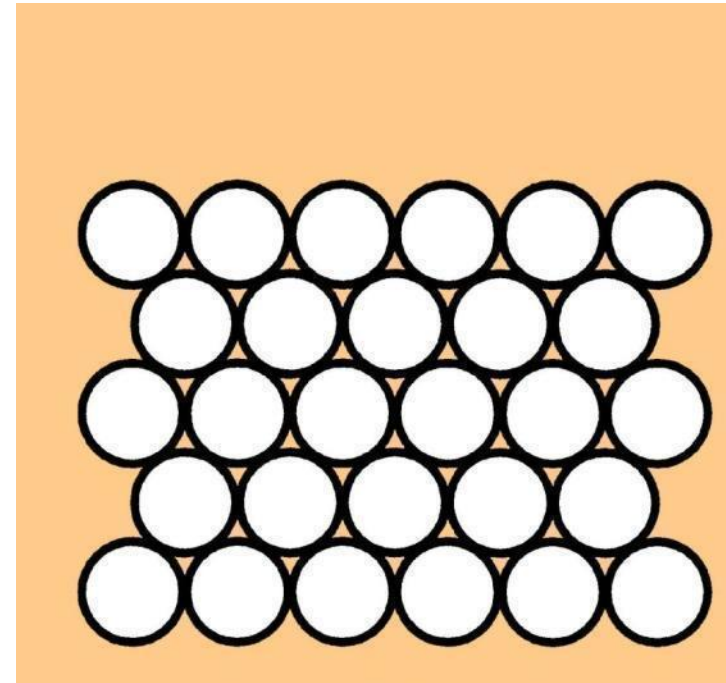
Atomic Structures in Metals



Amorphous



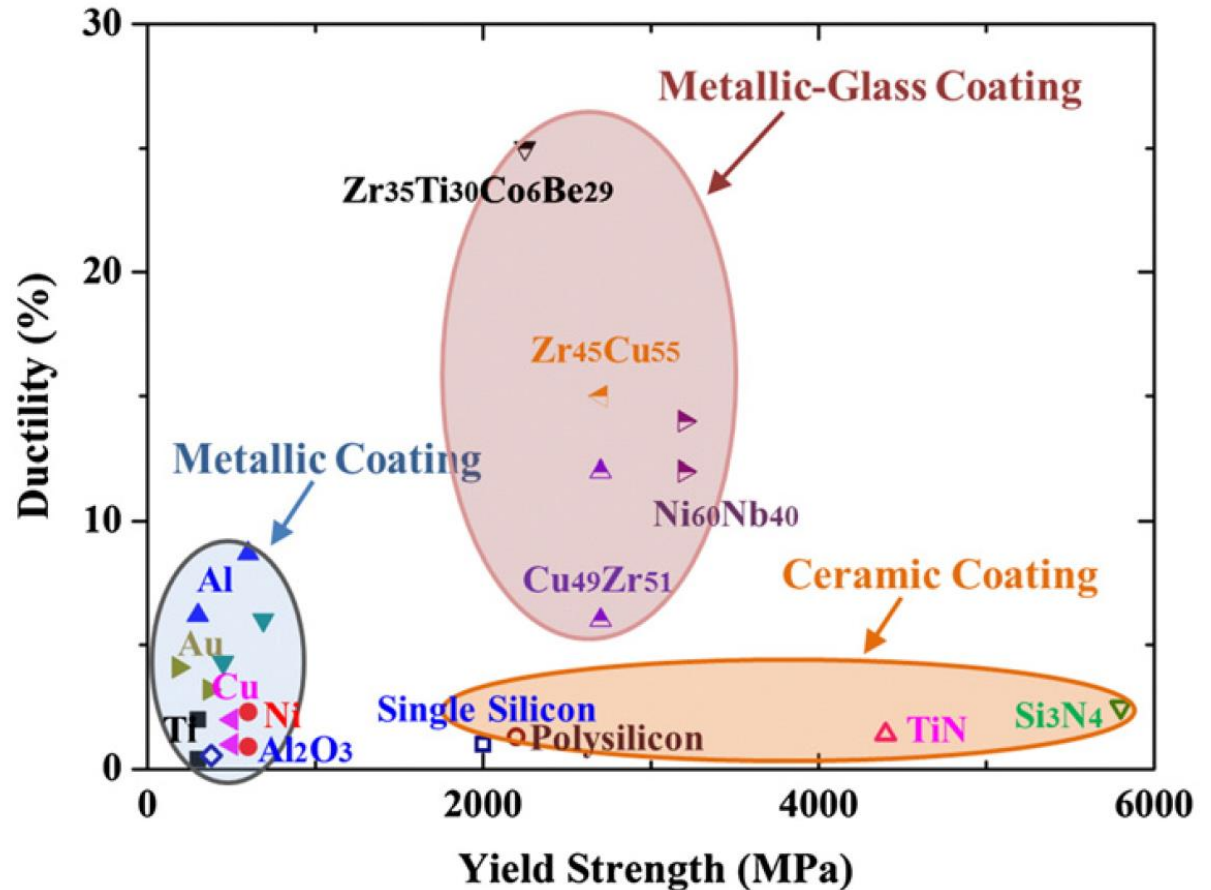
**Metallic Glass,
Amorphous Metal, Liquid Metals
Glassy Alloy, ...**



Crystalline

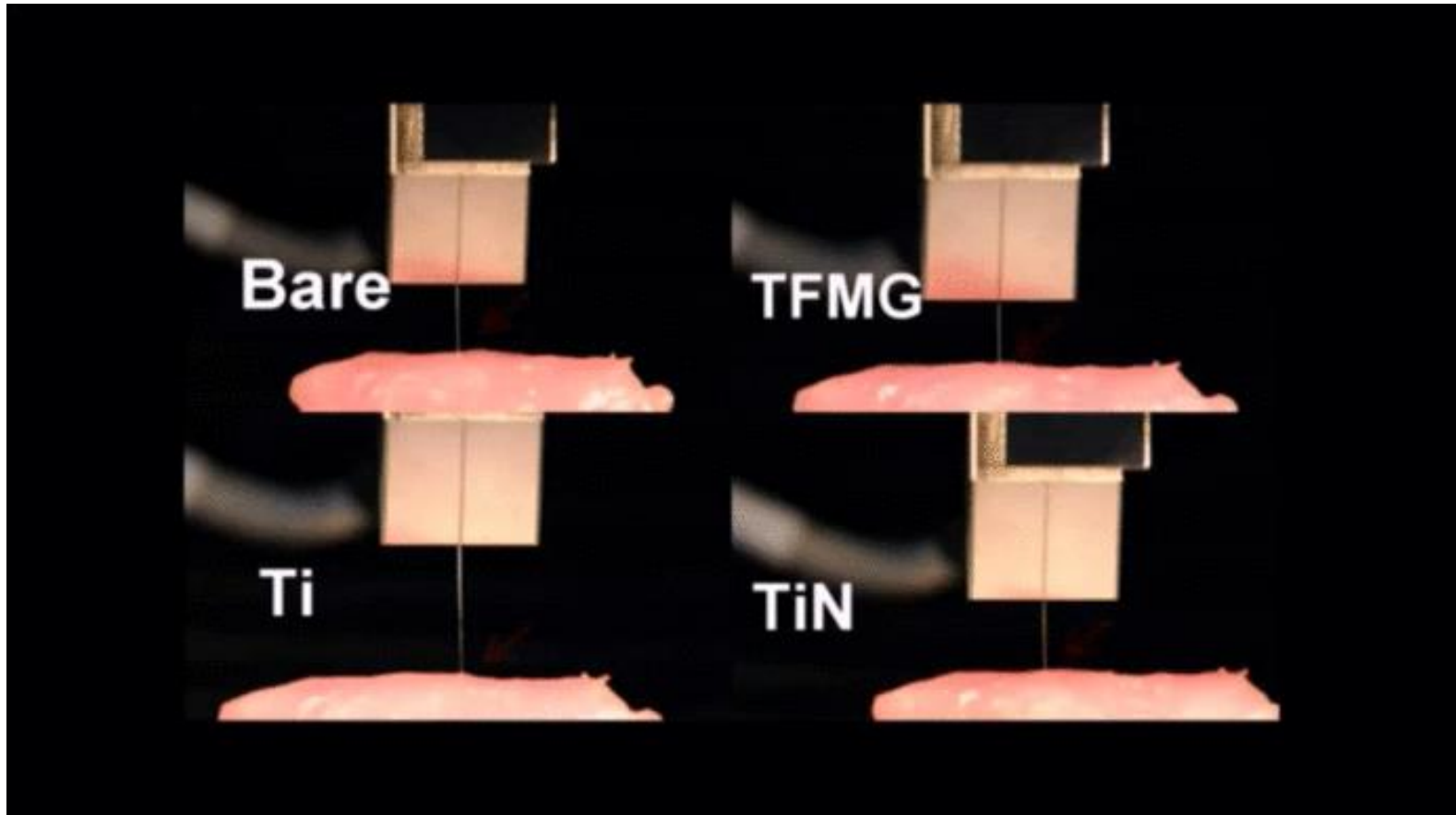
Metallic-Glass Coating

- ✓ High yield strength
- ✓ High elasticity
- ✓ Good corrosion and wear resistance
- ✓ Smooth surface
- ✓ Good ductility

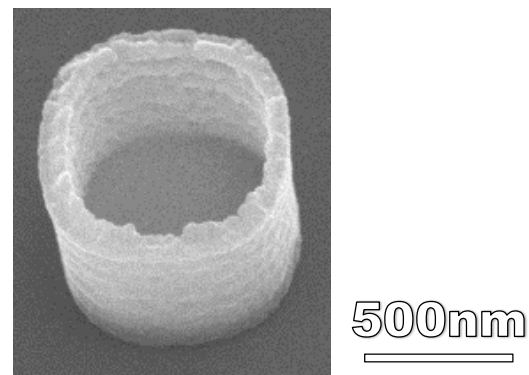
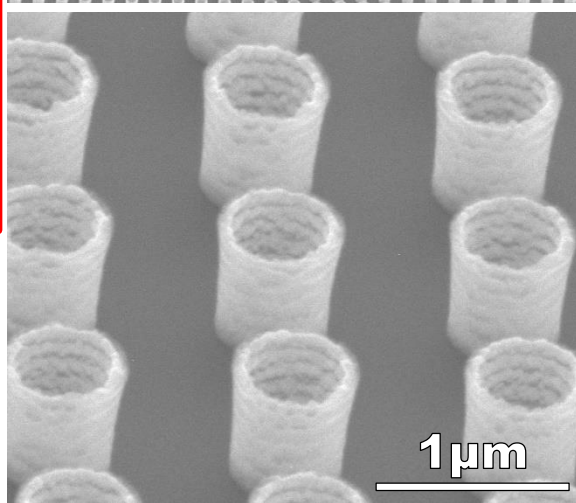
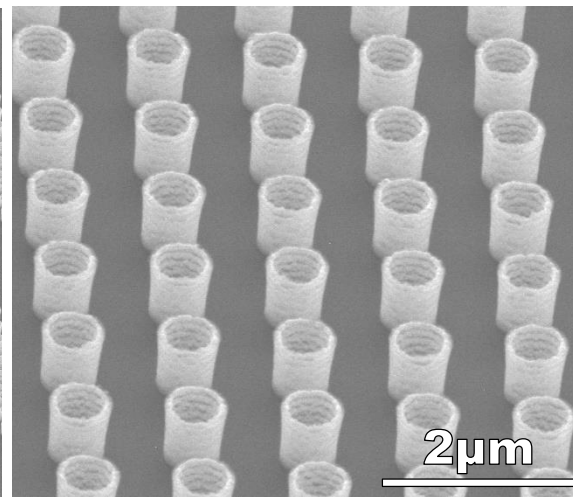
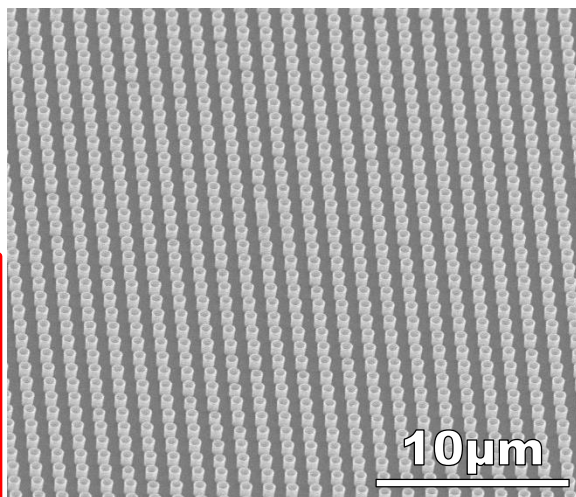


Chu et al./ *Thin Solid Film* (2014)

Non-Stick Metallic-Glass Coating (TFMG)



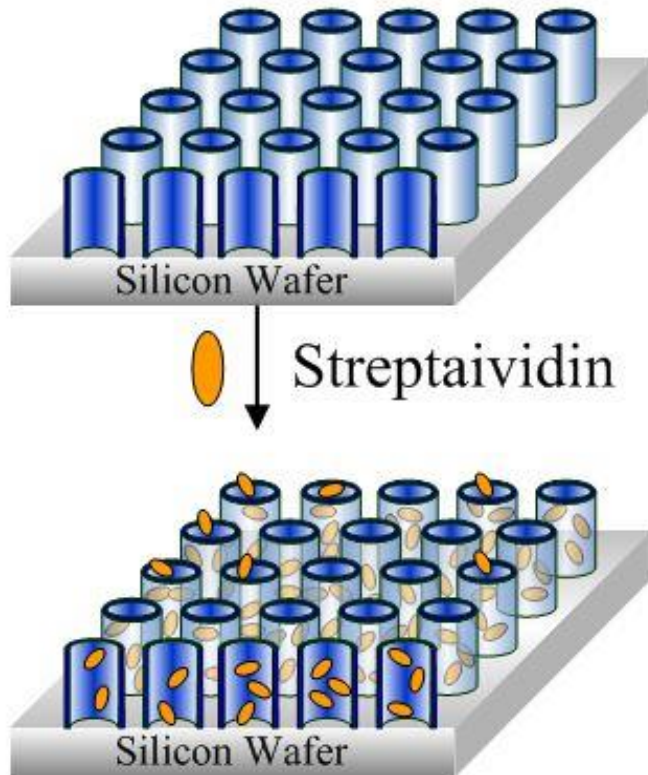
Metallic-Glass Nanotube Array



Metallic-glass nanotube array in a well-defined pattern on a large-scale substrate.



Metallic-Glass Nanotube Array



Following the modification of specific antibodies or DNA probes, nanotube array filled w/ a specific antigen or target could be used as a *biosensor* detecting changes in the optical properties.

