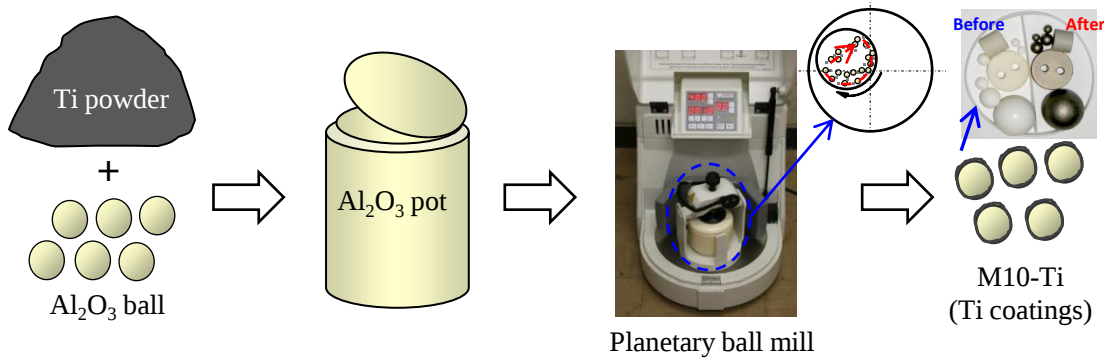
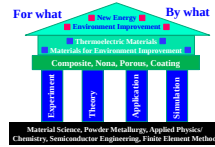


Preparation innovation on photocatalyst film: MCT

Graduate School & Faculty of Engineering, Chiba University

Yun Lu Laboratory

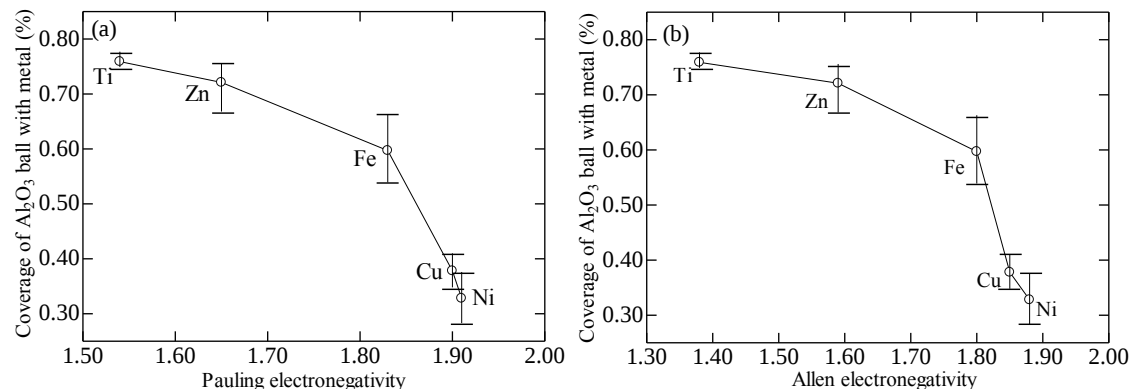
<http://apei.tu.chiba-u.jp/Luyun-HP.html>



Schematic diagram of fabricating Ti coatings by MCT

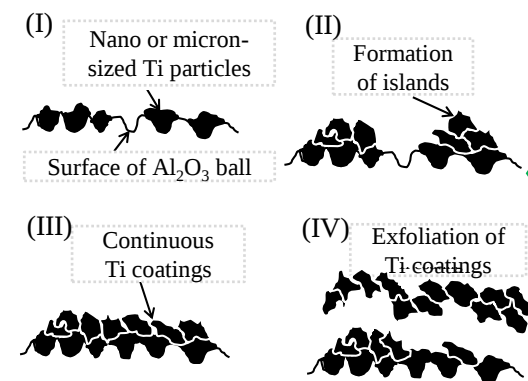
Sample	Rotation speed, x (rpm)	Collision power, (× 10 ⁹ J·m ⁻² ·s ⁻¹)	φ (Hz)	Collision strength, (× 10 ⁹ N·m ⁻² ·s ⁻¹)
TA200-yh	200	13.59	14.09	61.57
TA300-yh	300	23.91	21.15	108.50
TA400-yh	400	35.83	28.21	162.49
TA480-yh	480	46.33	33.84	210.15

Experiment condition of fabricating by MCT

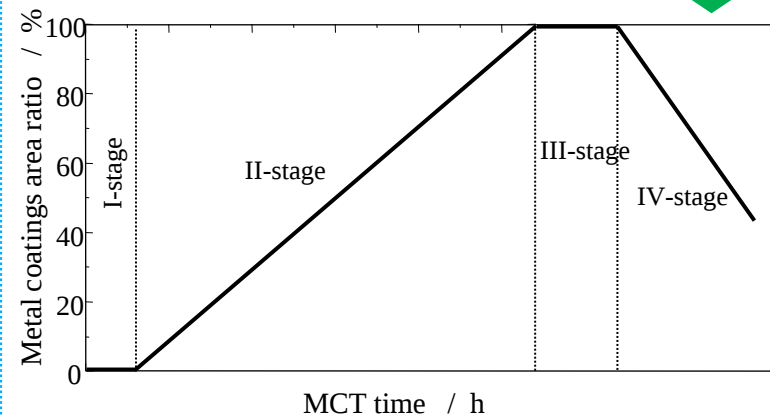


Electronegativity of the metals and film formation

Difficulty of metal film formation:
Zn > Fe > Cu > Ni



Schematic diagram of formation process



Formation process of metal coating area

Advantage of the MCT

- Simple process (safe, easy, cost down)
- Easily coat on complicated surface
- Coating with large specific surface area
- Coating with many kinds of materials: metal, oxide, composite, etc.