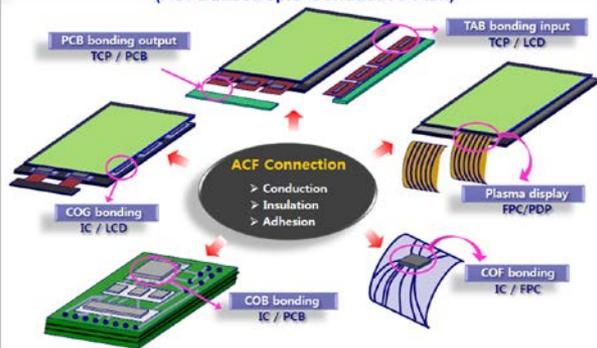


# 塑膠球金屬化技術與ACF應用

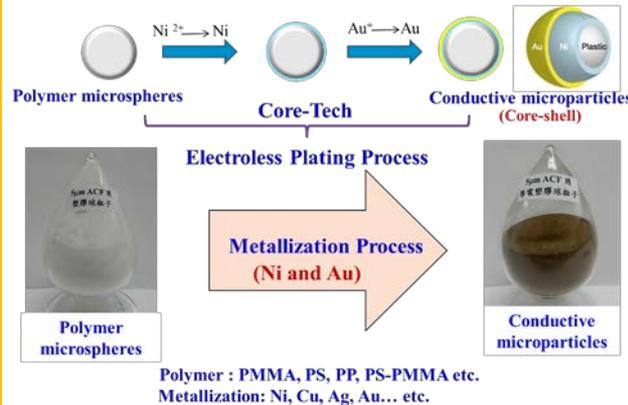
建立塑膠球表面形成連續高均勻性奈米金屬膜層及低電阻膜層技術，可以控制形成連續奈米金屬膜層厚度 $\leq 100$  nm及導電塑膠球表面接觸電阻 $< 10\Omega$ 。預期成為國內ACF用導電塑膠球技術領導，取代進口使ACF用導電塑膠球能自主國產化，降低國內廠家生產成本，提昇產業競爭力。

## The Application of ACF

(ACF: Anisotropic Conductive Film)



## Metallization of Polymer Microspheres

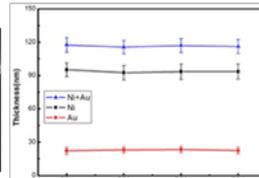
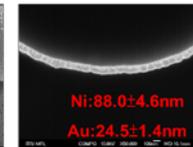
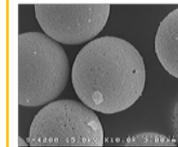


## Specification of Conductive Microarticles

Item	Specifications		
	*Thickness (nm)	Specific Gravity	**Contact Resistivity( $\Omega$ )
Conductive Microparticle			
MCL-J400 (5 $\mu$ m)	Ni ~90	Au ~25	2.2~2.3 <10
Commodity (5 $\mu$ m)	Ni 80~100	Au 34~52nm	2.3~2.5 <10

\*Thickness measure by SEM

\*\*Single particle measure by Micro Compression Testing Machines



## 技術規格

- 厚度精準控制  $\pm 10$ nm
- 顆粒表面電阻控制  $\pm 2\Omega$
- 粒子團聚數  $< 5$ 顆

## 技術特色

- (1) 具有金屬包覆高比面積粉體技術與試量產製程
- (2) 粉體表面活性點控制；連續奈米金屬鍍層製程
- (3) 包覆厚度奈米到微米可控制均勻連續金屬層