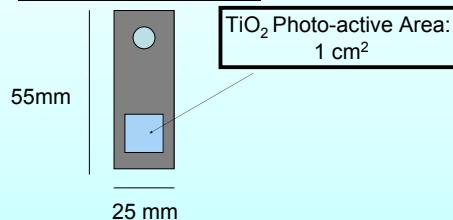


Effect Of A Galvanostatic Treatment On The Preparation Of Highly Ordered TiO₂ Nanotubes

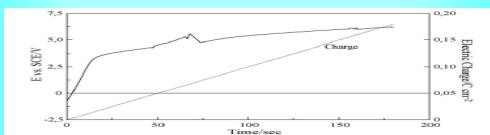
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TITANIUM SHEET

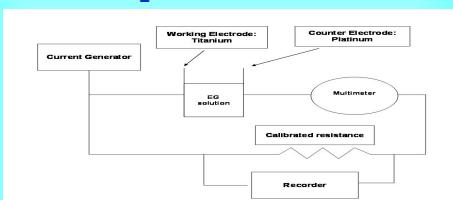


Galvanostatic Treatment

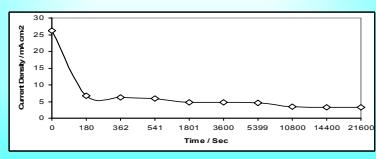


It provides an initial compact titanium dioxide for the next anodic growth process

Nanotubular TiO₂ Anodic Growth



Scheme of the anodization system



Current Density vs Time for 60V x 6h anodization

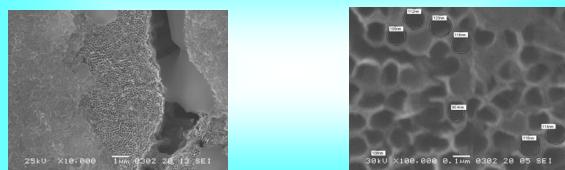
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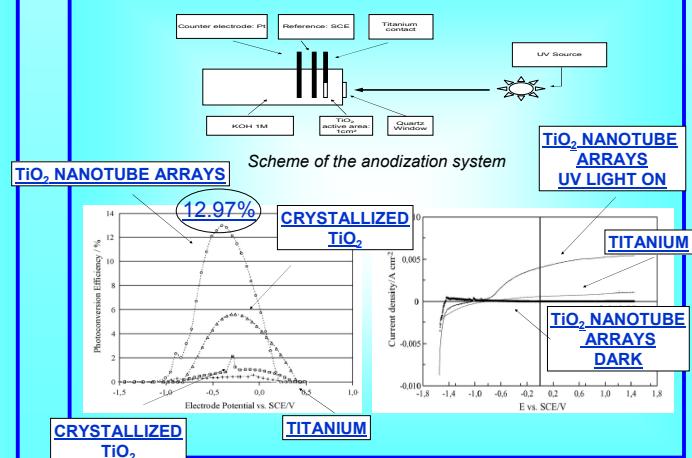
Photoelectrode Preparation [1]

- 1) Pickling in a 100 mL aqueous solution of HF/HNO₃ (1:3).
- 2) Galvanostatic treatment: 1 mA cm⁻² x 3 min. in KOH 1M.
- 3) Anodic growth: 60 V x 6 h in ethylene glycol + 0,25% wt. NH₄F + 1% wt. H₂O
- 4) Heat Treatment: 580°C x 1 h in air (1°C/min)

SEM Image



Photocurrent & Photoconversion Efficiency [2]



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