

FIG. 1A

Market size by technology (LCD excluded)

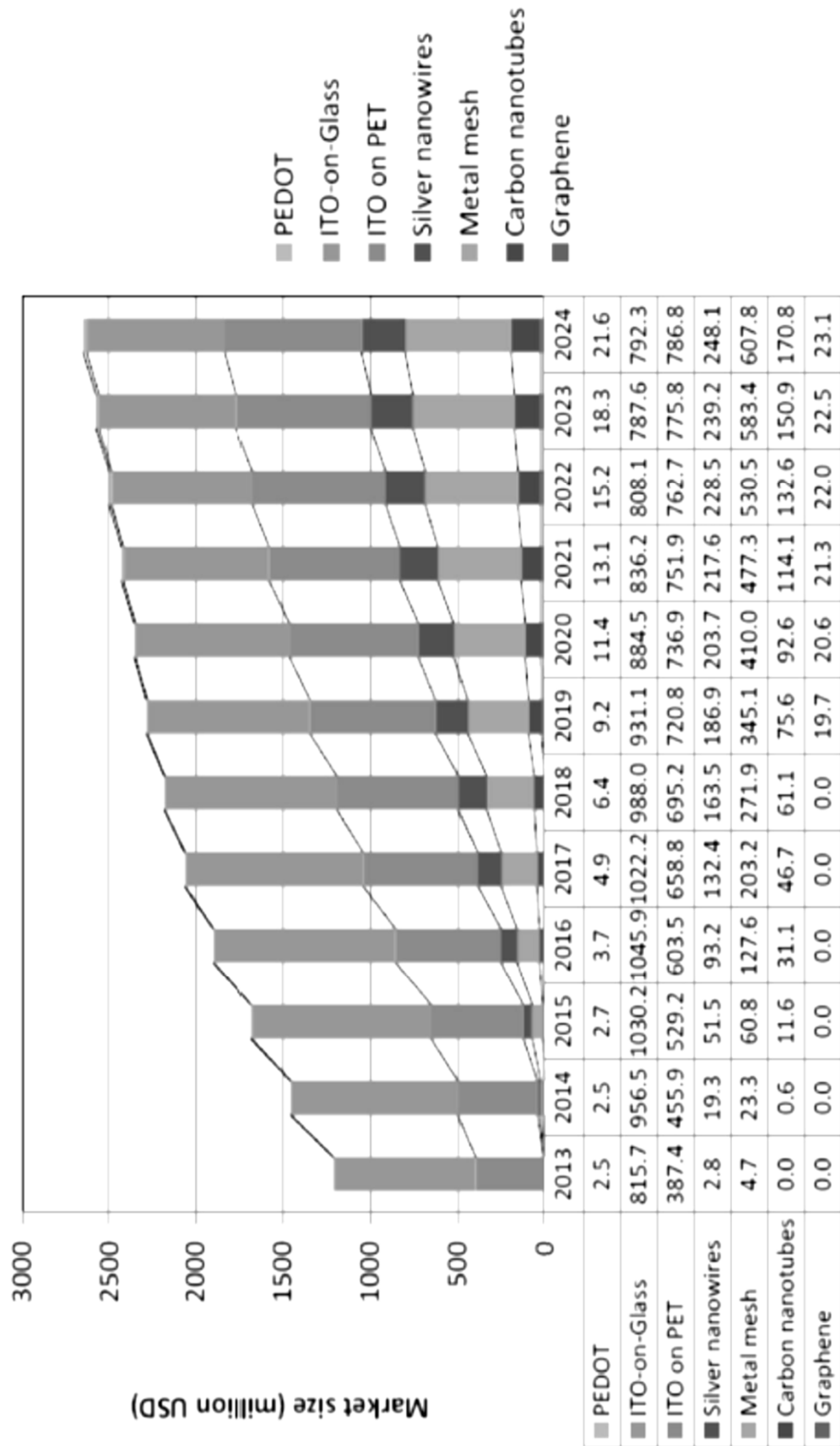


FIG. 1B

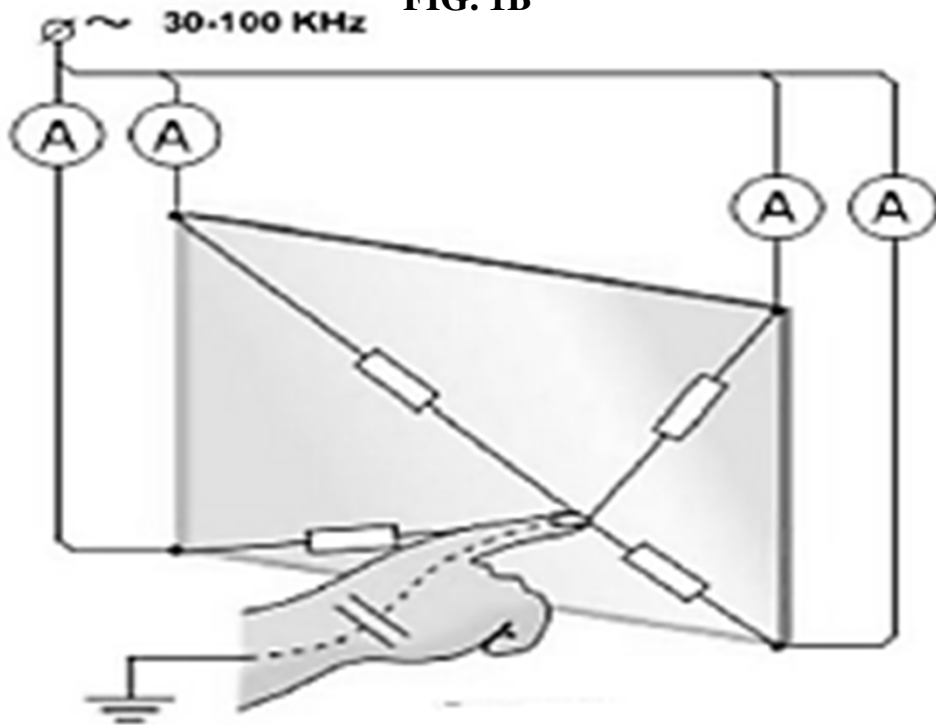


FIG. 1C

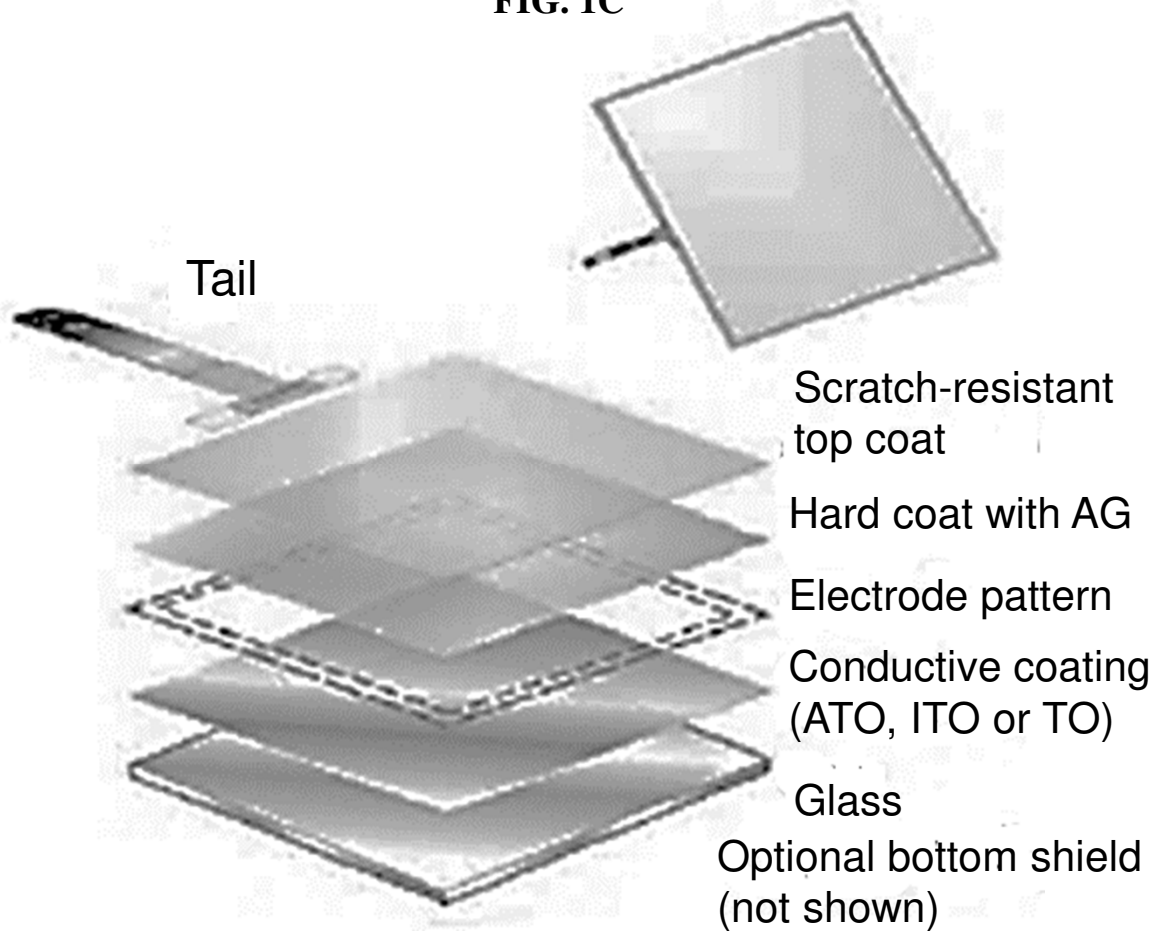


FIG. 1D



FIG. 1E

Basic principles of ITO layer coating through the sputtering method

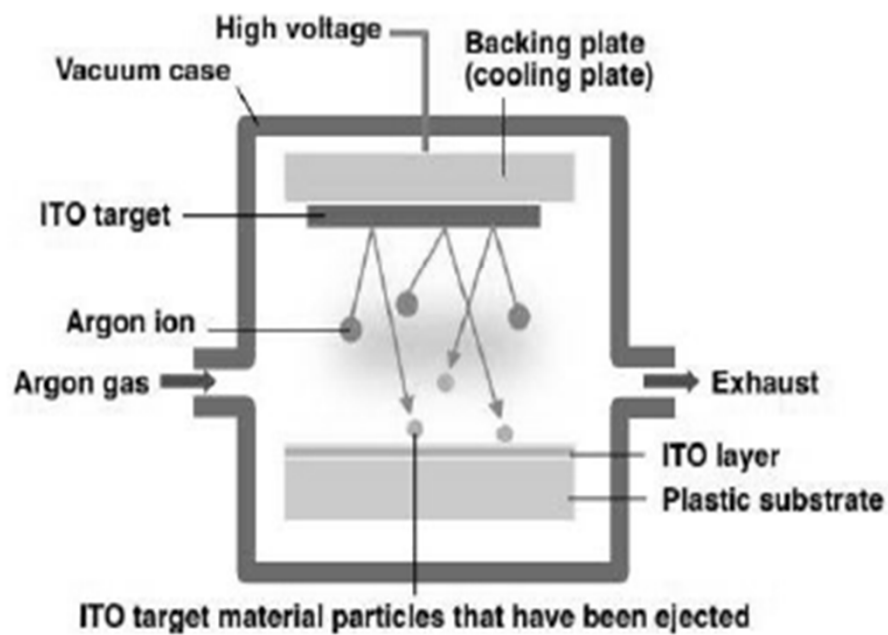


FIG. 1F

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deposition technique	resistivity ($\Omega\cdot\text{cm}$)	transmittance (%)	thickness (nm)	remarks
Vapor phase				
sputtering	5.0×10^{-4}	85	300	O ₂ /Ar
PLD	4.5×10^{-4}	87	730	
CVD	3.0×10^{-4}	85	750	
Liquid phase				
spray pyrolysis	3.6×10^{-2}	83	330	
	3.0×10^{-3}	74	3200	
sol-gel	$>1.0 \times 10^2$	98	2000	annealing in air
	10	96	2000	annealing in vacuum
	3.2×10^{-2}	93	2000	annealing in H ₂ /N ₂
	4.0×10^{-3}	93	2000	infiltration twice
nanoparticle dispersion	2.6×10^{-1}	77	812	annealing in H ₂ /N ₂

FIG. 2

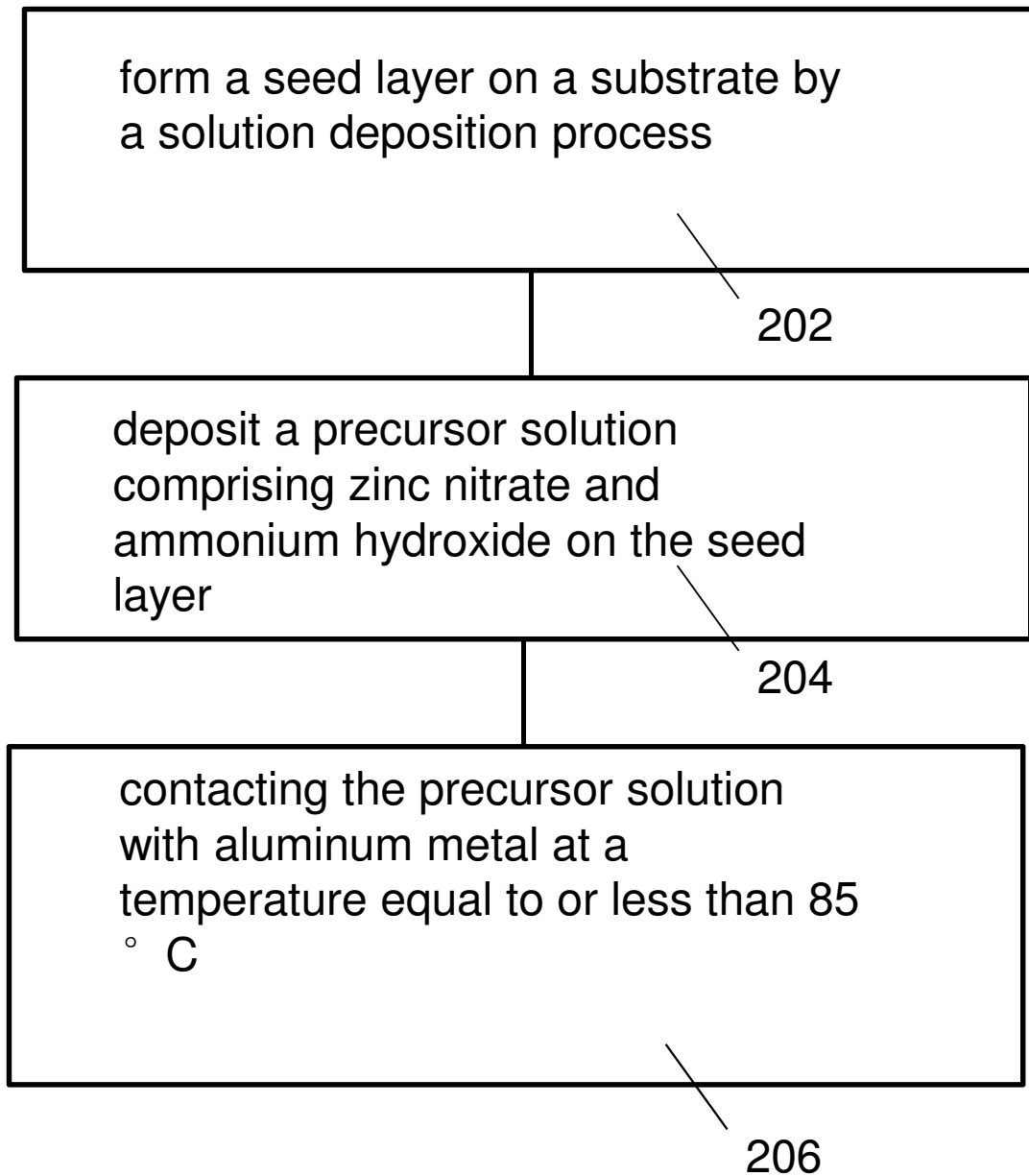


FIG. 3

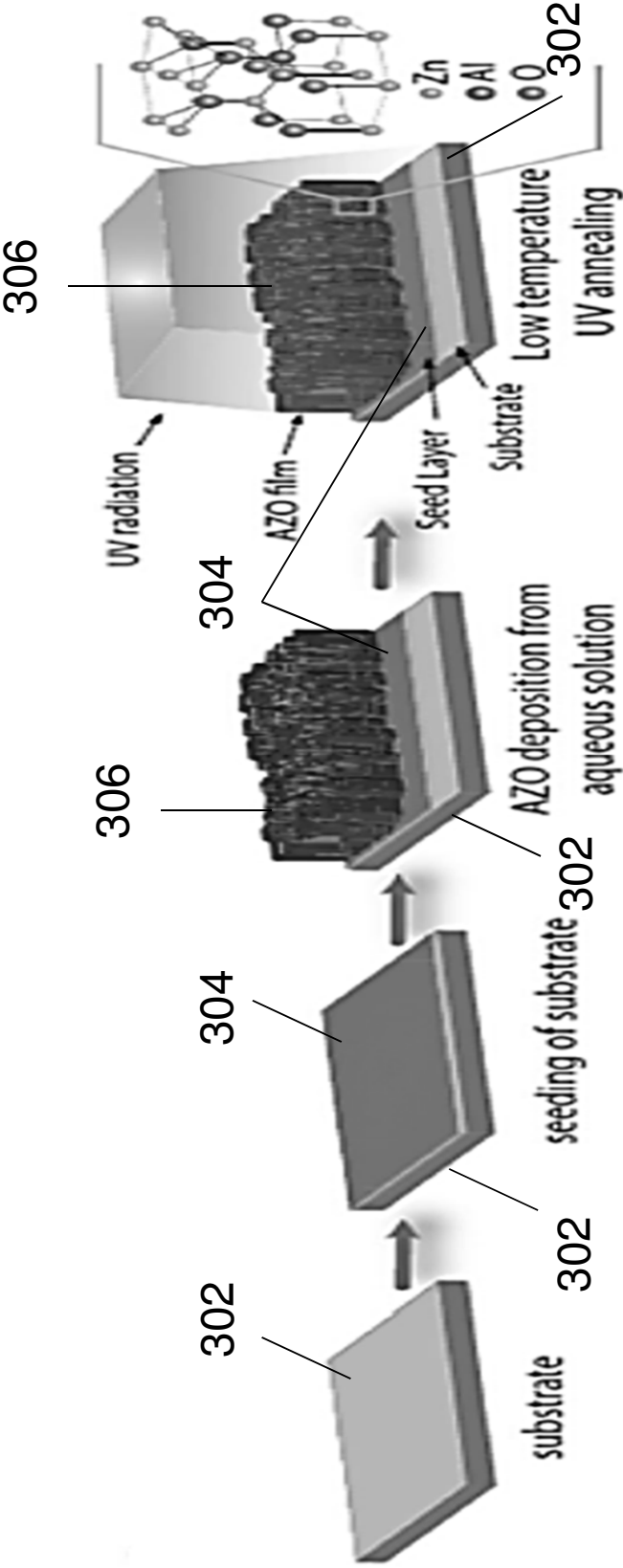


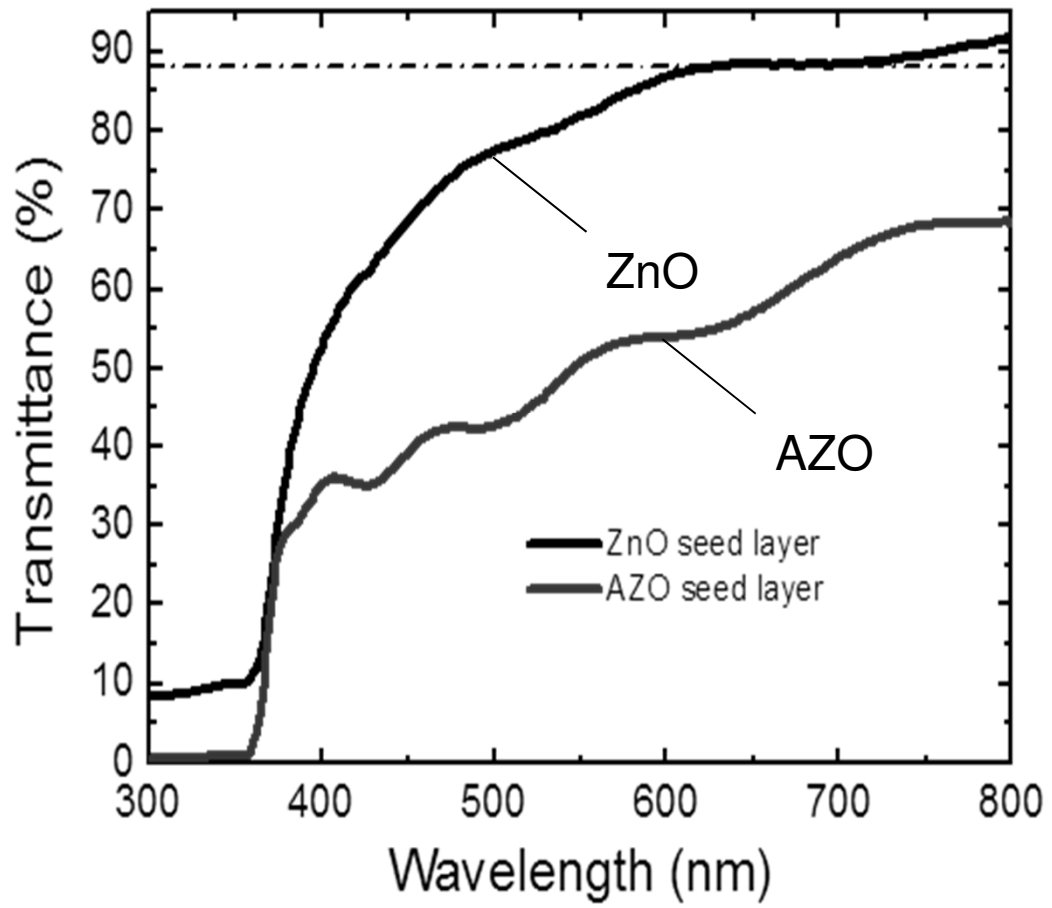
FIG. 4

FIG. 5A

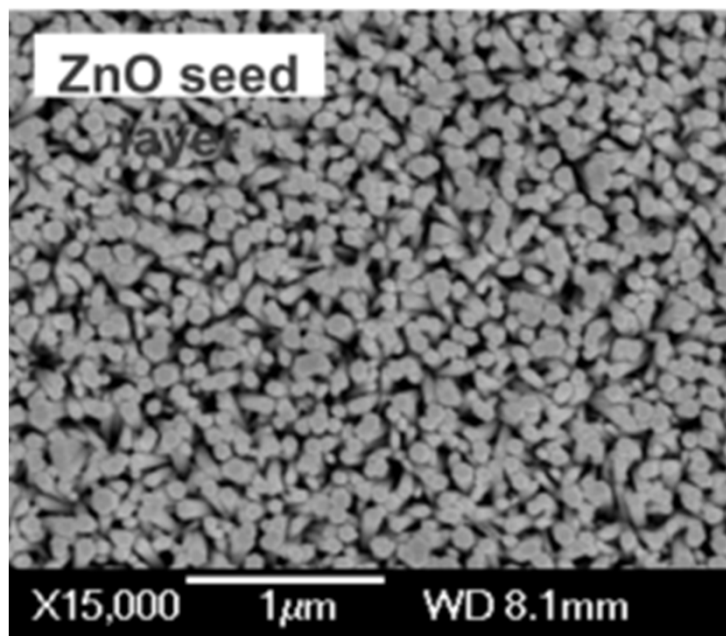


FIG. 5B

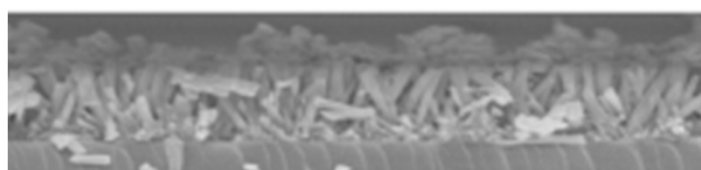


FIG. 5C

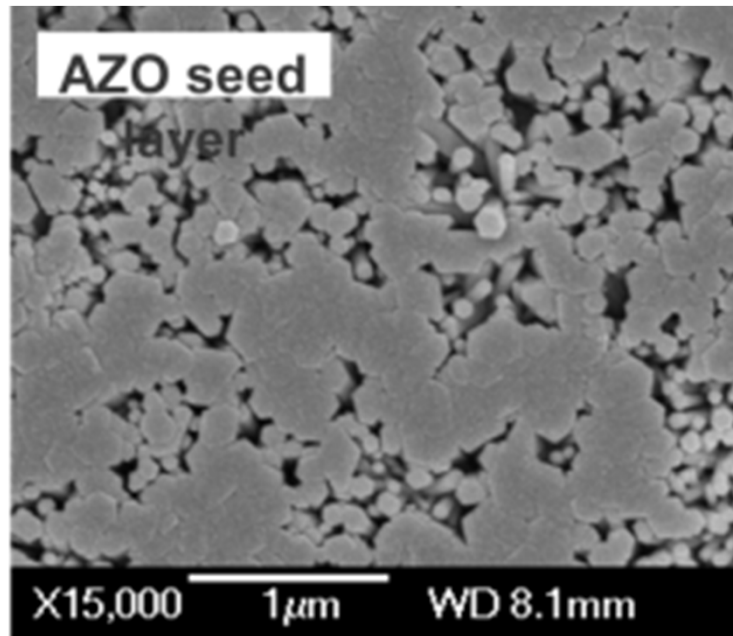
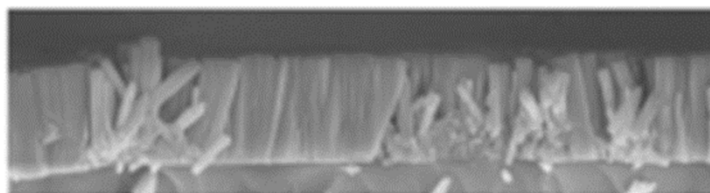
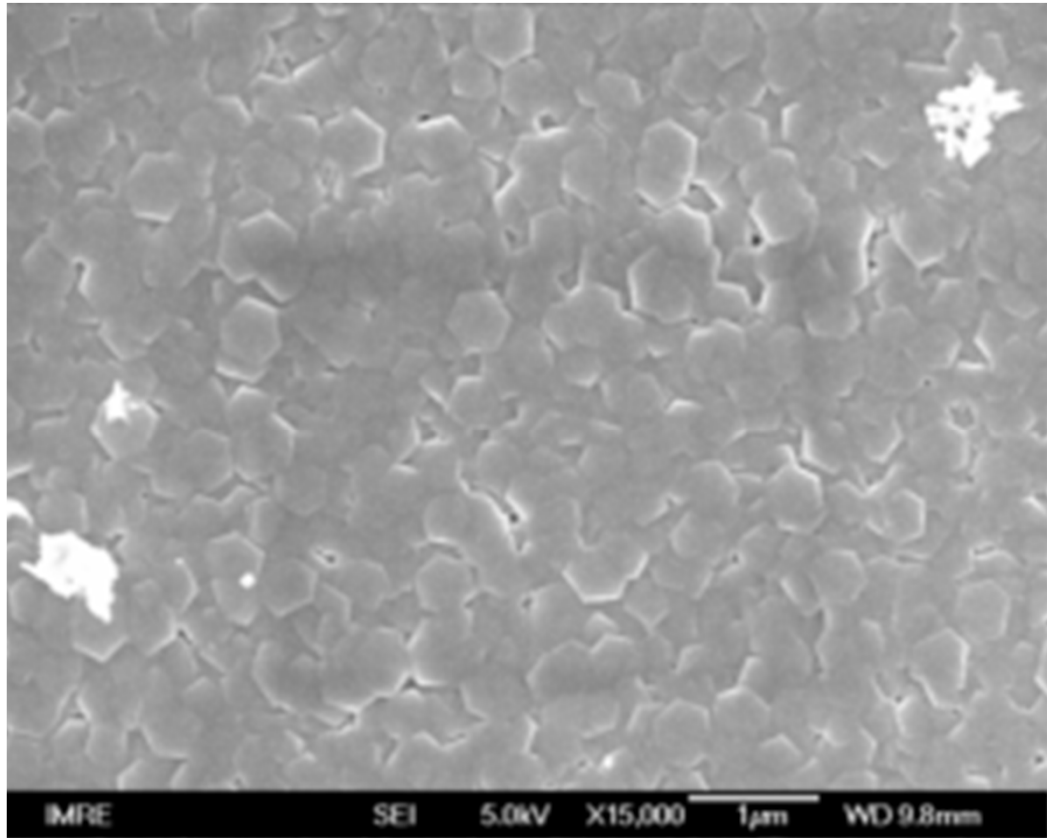


FIG. 5D



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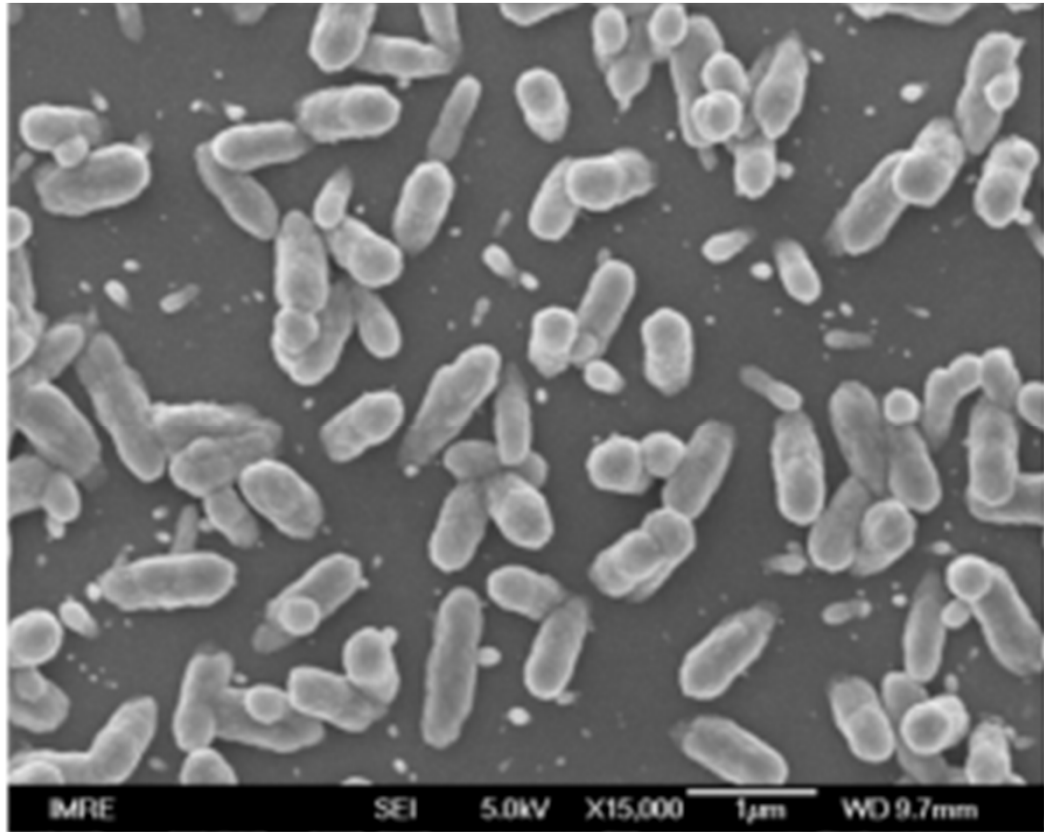
FIG.6A



AZO Seed Layer, Original Bath Recipe

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FIG. 6B



ZnO Seed Layer, Original Bath Recipe

FIG. 6C

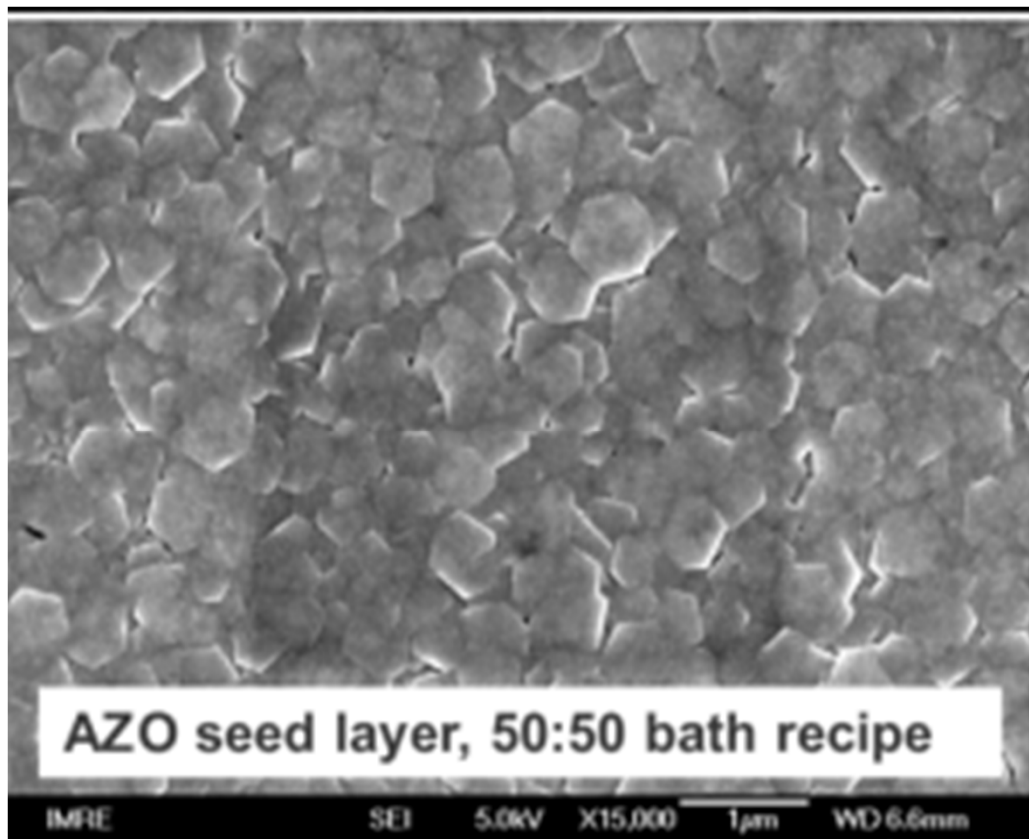


FIG. 6D

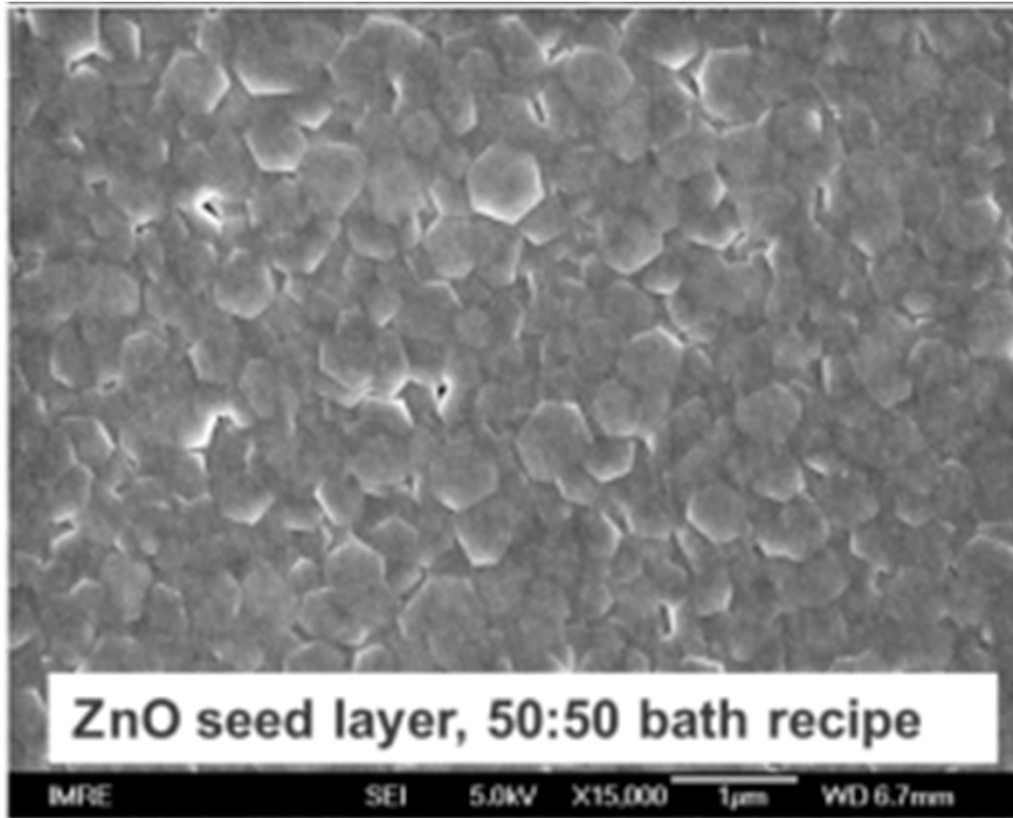


FIG. 7

	AZO seed layer	ZnO seed layer
Sheet Resistance ($\Omega/\square$)	43	36
	45	40
	52	60
Average	47	45

FIG. 8

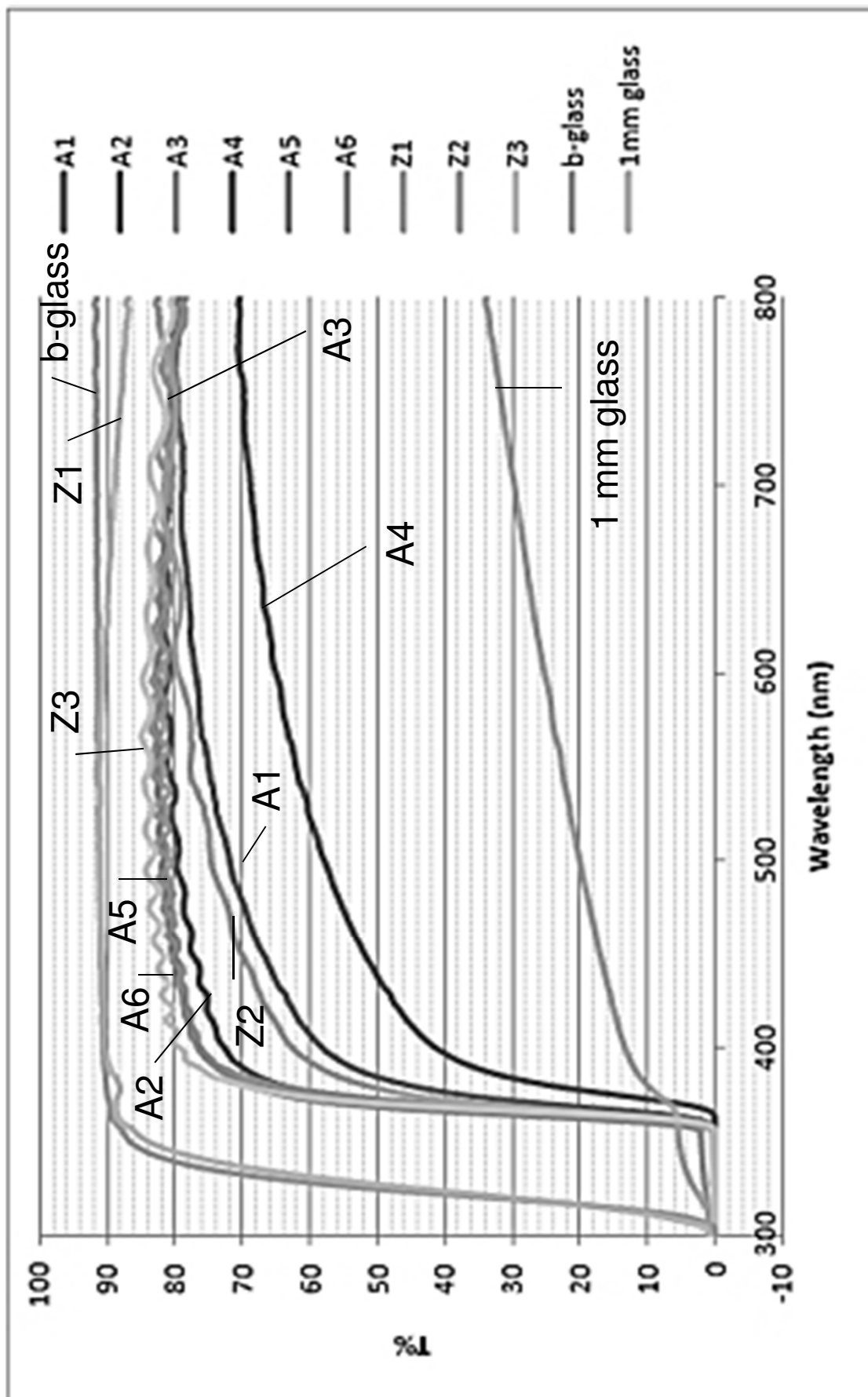


FIG. 9

	Resheet (ohm/sq)	T% (400-800nm)	
		Include substrate	Exclude substrate
SG1	46.06667	83.85	92.5
PET	122.7	79.04	93.57

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FIG. 10

without coating



coating

FIG. 11

