

Supporting Information (SI)

Effect of deposition container on nanostructural growth and DSSCs application of rutile TiO_2

Kailas K. Tehare,^a Manohar K. Zate,^a Sambhaji S. Bhande,^a Sanjay L. Gaikwad,^a Supriya A. Patil,^b Seong Yoon Joon,^b Rajaram S. Mane,^a Sung-Hwan Han^{b,*}

^aSchool of Physical Sciences, Swami Ramanand TeerthMarathwada University Nanded-431606, India

^bInorganic Nano-materials Laboratory, Hanyang University, Seoul, Republic of Korea.

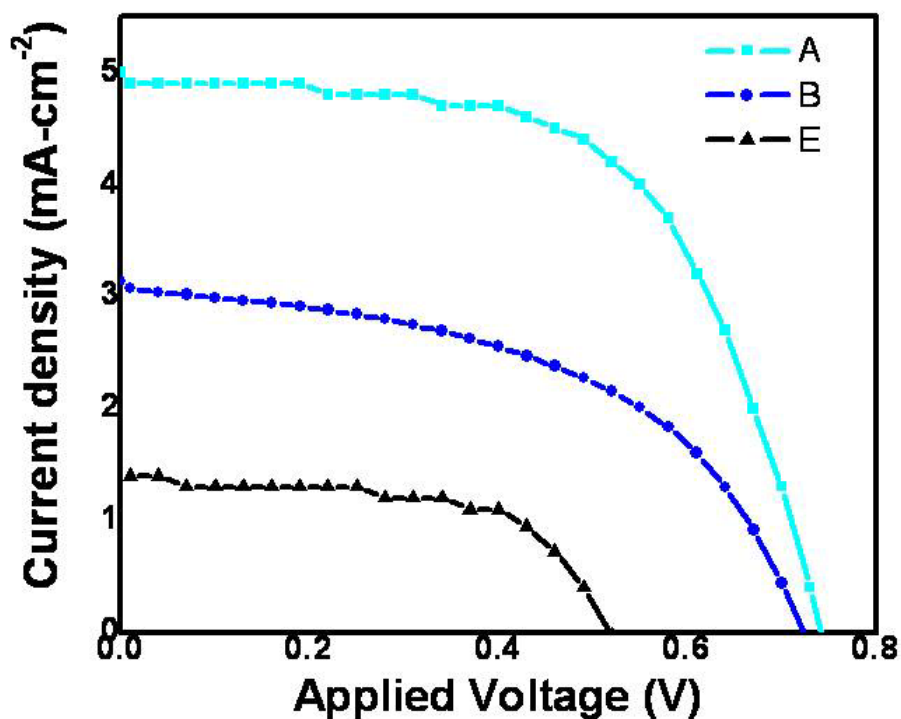


Fig S1;J-V measurements of TiO_2 electrodes synthesized in plastic container using intentionally doped; A) copper, B) silver and E) iron precursors

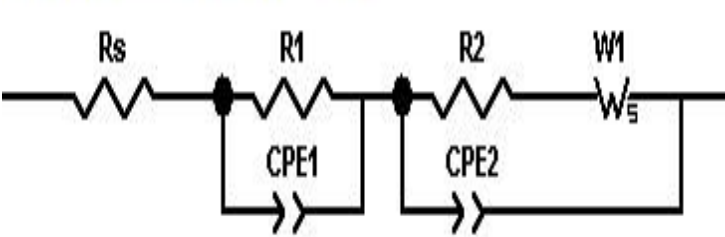


Figure S2;equivalent circuit model used EIS measurements for obtaining related electronic parameters

Table S1: Electronic parameters obtained from JV measurements of intentionally doped; copper, silver and iron precursors

Doping Precursors Type	J_{sc} (mA-Cm⁻²)	Voc (V)	FF	Efficiency (%)
copper chloride	4.93	0.74	0.48	1.76
Silver chloride	3.16	0.71	0.38	0.87
Iron chloride	1.38	0.52	0.26	0.19

Table S2:EDX Elements contributions in TiO₂.

Container	Element	Weight %	Atomic %
Stainless-steel	Ti	33.85	16.12
	O	64.15	83.21
	Fe	0.13	0.05
Glass	Ti	43.43	19.69
	O	54.92	77.49
Plastic	Ti	43.43	19.69
	O	54.92	77.49
Silver	Ti	37.27	17.55
	O	59.53	78.55
	Ag	0.11	0.02
Copper	Ti	36.68	17.21
	O	61.60	80.52
	Cu	0.12	0.04

Table S3:EDX Elements contributions intentionally metal doping.

Doping Materials	Element	Weight %	Atomic %
Copper Chloride	Ti	54.44	79.40
	O	32.28	15.73
	Cu	13.28	4.88
Silver Chloride	Ti	62.53	83.72
	O	35.58	15.91
	Ag	1.89	0.38
Iron Chloride	Ti	61.59	82.77
	O	38.15	17.13
	Fe	0.26	0.10