

Supplementary Information

Raman Spectra

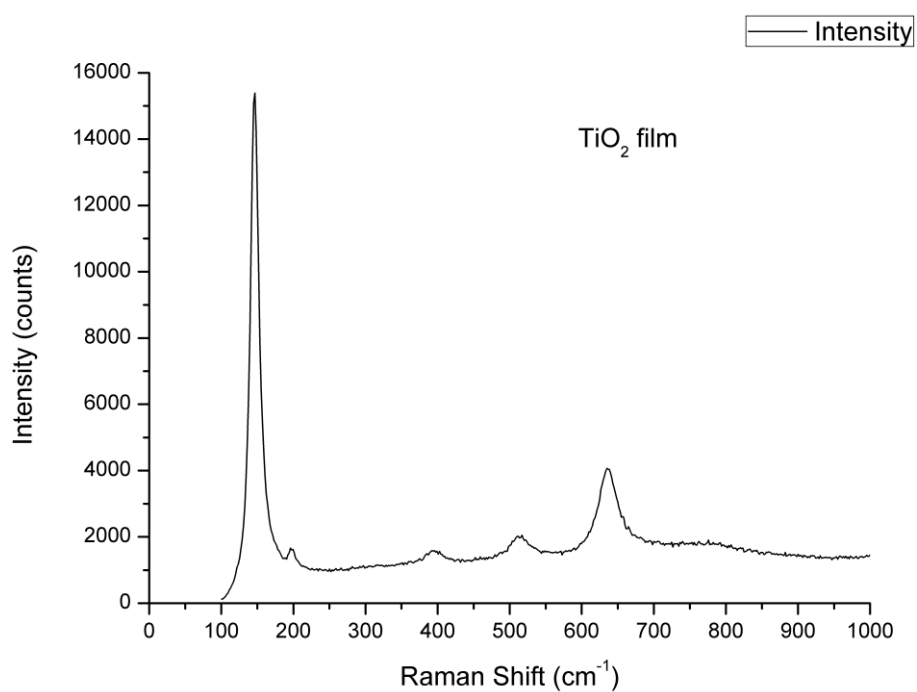


Figure 1: Raman spectrum of pure TiO₂ film

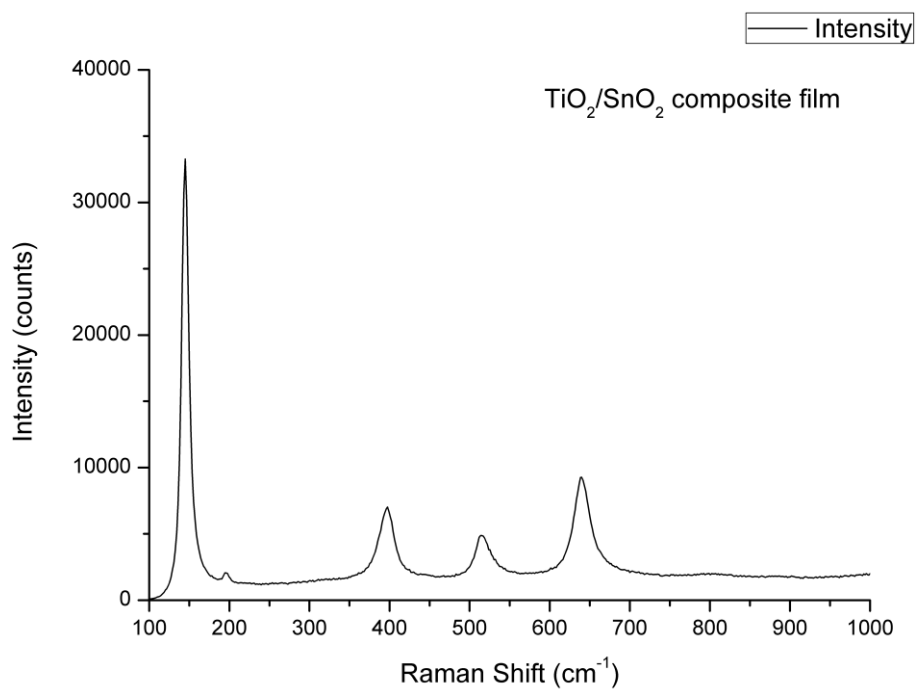


Figure 2: Raman spectrum of the TiO₂/SnO₂ composite film

	Atomic %					
	O	Sn	Ti	Si	Cl	Total
Region 1	66.1043	5.2133	24.5663	3.964	0.1521	100
Region 2	67.7093	5.4244	24.7211	2.013	0.1322	100
Region 3	68.475	5.2007	24.2345	1.9449	0.1449	100
Region 4	67.6097	5.6134	24.2173	2.4095	0.1501	100
Average	67.47	5.36	24.43	2.58	0.14	

Table 1: Normalised WDX results for TiO₂/SnO₂ composite film

	Atomic %			
	O	Si	Ti	Total
Region 1	65.7256	1.4134	32.8610	100
Region 2	64.1428	1.1812	34.6759	100
Region 3	63.8853	1.8936	34.2211	100
Region 4	63.5345	1.7480	34.7175	100
Average	64.3220	1.5591	34.1189	

Table 2: Normalised WDX results for TiO₂ film

	Atomic %			
	O	Si	Sn	Total
Region 1	67.2726	15.7171	17.0103	100
Region 2	65.6802	17.6923	16.6275	100
Region 3	67.6002	15.4842	16.9157	100
Region 4	67.0944	16.3522	16.5534	100
Average	66.9118	16.3114	16.7767	

Table 3: Normalised WDX results for SnO₂ film

Side-on SEMs

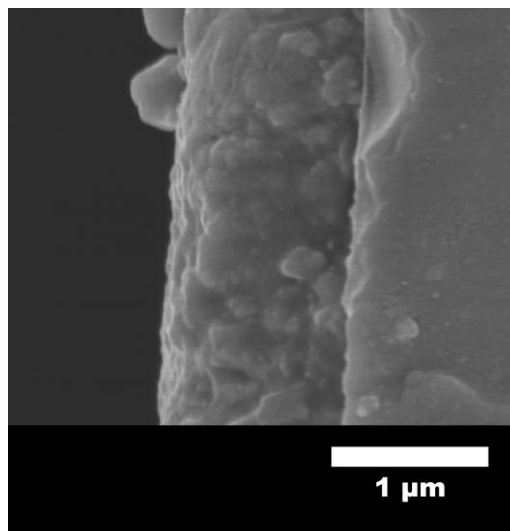


Figure 3: Side on SEM of the TiO₂/SnO₂ composite film

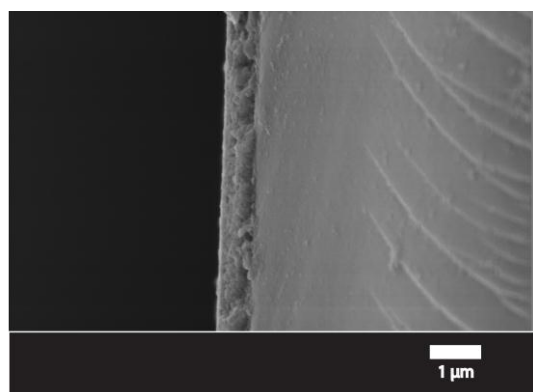


Figure 4: Side on SEM of the TiO₂ film