

Biomimetic polyimide-supported cuprous oxide photocatalytic film with tunable hydrophobicity, improved thermal stability and photocatalytic activity toward CO₂ reduction

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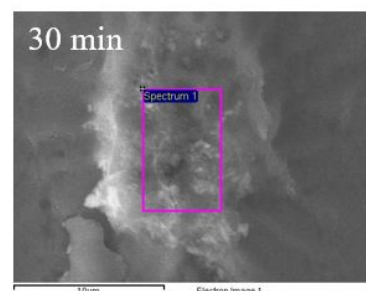
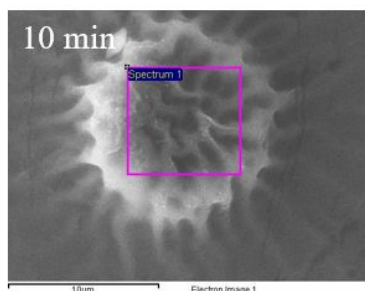
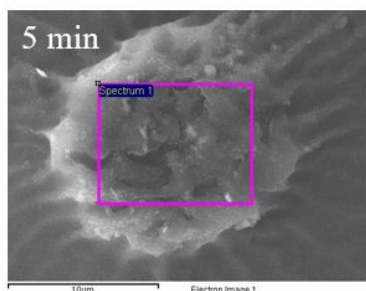
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(a)



x: ion-exchange time (5, 10, 30 min)

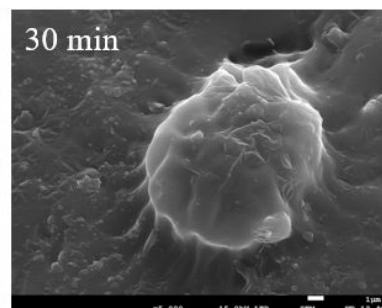
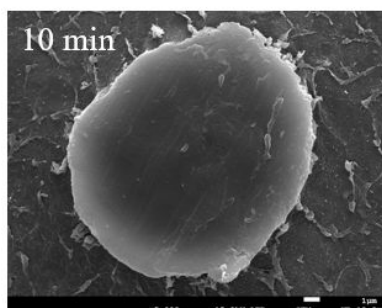
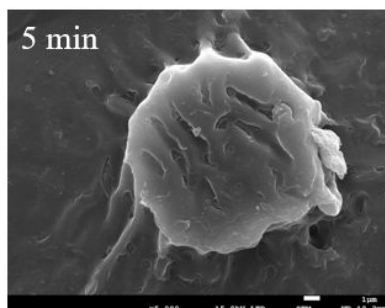


Element	Atomic %		
	Cu/ <i>t</i> PI-5	Cu/ <i>t</i> PI-10	Cu/ <i>t</i> PI-30
C	78.44	76.38	73.97
O	20.96	22.28	24.01
Cu	0.60	1.34	2.02

(b)



x: ion-exchange time (5, 10, 30 min)



Element	Atomic %		
	Cu/ <i>it</i> PI-5	Cu/ <i>it</i> PI-10	Cu/ <i>it</i> PI-30
C	75.51	75.78	73.60
O	24.39	24.14	26.31
Cu	0.10	0.08	0.09

Figure S1. Top-view SEM images and EDX elemental ratios of (a) Cu/*t*PI-x and (b) Cu/*it*PI-x films.