Supporting Information for

## Indium-Modified Ga<sub>2</sub>O<sub>3</sub> Hierarchical Nanosheets as Highly Efficient Photocatalysts for Degradation of Perfluorooctanoic Acid

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**Figure S8.** Dark adsorption experiments of Ga<sub>2</sub>O<sub>3</sub> and In-Ga<sub>2</sub>O<sub>3.</sub> Reaction condition: 0.5 g/L catalysts, 20 mg/L PFOA, room temperature.



Figure S9. Photodegradation of PFOA by Ga<sub>2</sub>O<sub>3</sub> in presence of different quenching

agents.

Sample	C <sub>1s</sub>	O <sub>1s</sub>	Ga <sub>2p3</sub>	In <sub>3d5</sub>
Ga <sub>2</sub> O <sub>3</sub>	11.8%	50.3%	37.9%	_
In-Ga <sub>2</sub> O <sub>3</sub>	14.2%	49.1%	34.7%	2.0%

 Table S1 Atomic percentage in different catalysts analyzed by XPS.

No	PFAS	Molecular	Chain	Structure	Formula
		Weight	Length		
1	Perfluorooctanoic Acid	414.07	8		$C_8HF_{15}O_2$
	(PFOA)				
2	Perfluoroheptanoic acid	364.062	7	A to the to	$C_7HF_{13}O_2$
	(PFHpA)				
3	Perfluorohexanoic acid	314.054	6	y y y y y	$C_6HF_{11}O_2$
	(PFHxA)				
4	Perfluoropentanoic acid	264.047	5	Ly Ly La	C <sub>5</sub> HF <sub>9</sub> O <sub>2</sub>
	(PFPeA)				
5	Perfluorobutyric Acid	214.039	4	$\sqrt{2}\sqrt{2}$	C <sub>4</sub> HF <sub>7</sub> O <sub>2</sub>
	(PFBA)				
6	Perfluoropropionic acid	164.03	3	Lyte	$C_3HF_5O_2$
	(PFPrA)				

## Table S2 Physicochemical properties of PFOA and intermediates