

## Supporting Information

### Study on Chemical synthesis process of Ga<sub>2</sub>O<sub>3</sub> nanowires and their ultraviolet light sensor properties

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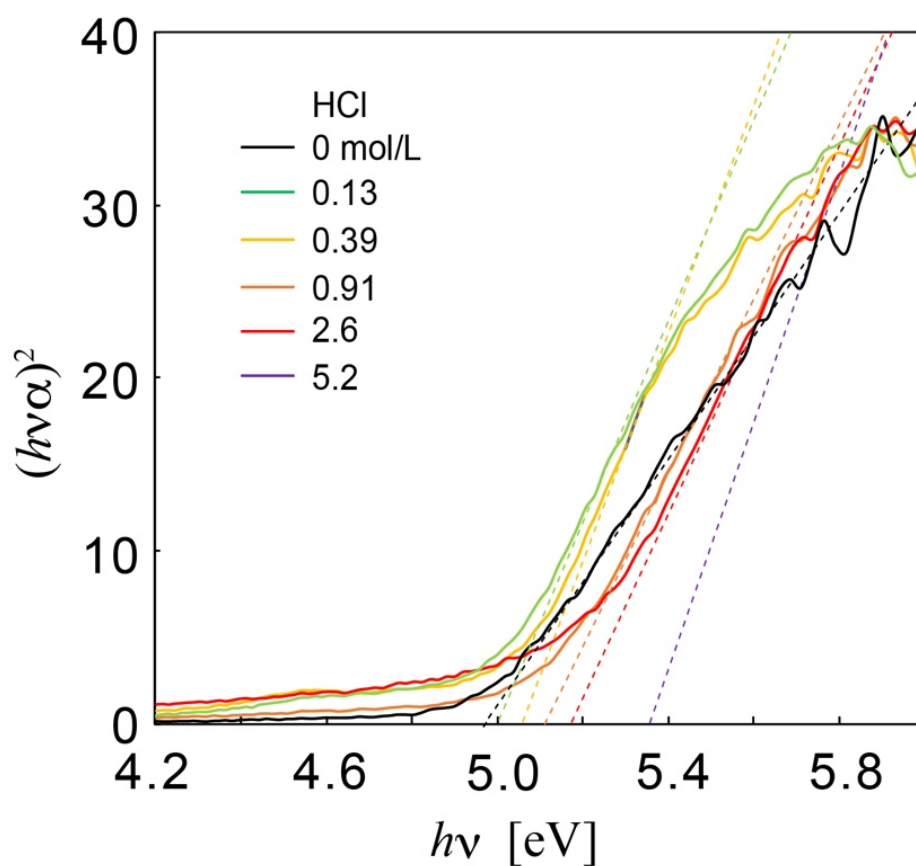


Fig. S1 Tauc plots of Ga<sub>2</sub>O<sub>3</sub> nanowires synthesized with various HCl concentration.

Table SI Crystal lattice spacing and corresponding crystal plane index found from SAED measurements of nanowires grown without HCl.

heat treatment temperature (°C)	lattice spacing (Å)	crystal type	plane index
200	2.50	$\epsilon$	(100)
	1.50		(105)
400	2.50	$\epsilon$	(100)
	1.48		(105)
700	2.84	$\beta$	(002)
	2.55		(111)
	2.09		(-112)
	1.51		(020)
	1.44		(403)
900	2.80	$\beta$	(002)
	2.57		(111)
	2.29		(-311)
	2.09		(-112)
	1.95		(112)
	1.52		(020)
	1.44		(403)

Table SII Crystal lattice spacing and corresponding crystal plane index found from SAED measurements of nanowires grown with 0.39 mol/L HCl.

heat treatment temperature (°C)	lattice spacing (Å)	crystal type	plane index
200	2.52	$\epsilon$	(100)
	1.49		(105)
400	2.51	$\epsilon$	(100)
	1.49		(105)
700	2.81	$\beta$	(002)
	2.59		(111)
	2.09		(-112)
	1.51		(020)
	1.43		(403)
900	2.80	$\beta$	(002)
	2.56		(111)
	2.31		(-311)
	2.10		(-112)
	1.97		(112)
	1.51		(020)
	1.44		(403)