Electronic Supplementary Information

Growth of Flexible N-doped SiC Quasialigned Nanoarrays and Their Field Emission Properties

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Emitters	Turn-on fields (V/µm)	Threshold fields (V/µm)	Ref.
N-doped nanoporous SiC	4.4 ~ 9.6		1
tubular β -SiC	5	10 at 10 mA/cm^2	2
SiC nanowires/nanorods	3.33	5.77 at 10 <i>m</i> A/cm ²	3
hierarchical β -SiC nanoarchitectures	12		4
aligned SiC porous nanowires	2.3 ~ 2.9		5
Al_2O_3 nanoparticle-decorated tubular SiC	2.4	5.37 at 10 mA/cm^2	6
core-shell SiC-SiO ₂ nanowires	3.3 ~ 4.5		7
bamboo-like β -SiC nanowires	10.1		8
ultrathin 3C-SiC nanobelts	3.2		9
β -SiC nanowires		4	10
lawn-like SiC nanowires	2.1		11
carbon-coated SiC nanowires	4.2		12
BN Coated SiC Nanowires	6	20 at 10 m A/cm ²	13
N-doped SiC quasialigned nanoarrays	1.90	2.53	this work
conical nanocarbon	6.1 at 10 nA/cm ²	9.5 at 10 μ A/cm ²	14
carbon nanotubes	3.6		15
carbon nanofibers		~ 3.65 at 1 μ A/cm ²	16
tungsten oxide nanowires		4.3 at 10 mA/cm^2	17
CdS nanowire array		10.57 ~ 12.7	18
vertical ZnO nanowires/graphene hybrids	2.0 ~ 2.8		19
multiwall carbon nanotubes	2.05 at 1 μ A/cm ²	2.2 at 10 μ A/cm ²	20

Table S1. Turn-on and threshold fields^a for SiC emitters and other nanostructured flexible cathodes

^{*a*} The turn-on and threshold fields required to generate an emission current density of 10 μ A/cm² and 1 *m*A/cm², respectively. If other values are used, it will be mentioned separately.

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