

Supplementary Materials

Table S1. Statistical analyses of the output voltage mappings registered at constant normal forces (CNFs) ranging between 120 nN and 380 nN for the three aspect ratio distributions.

	Constant Normal Force (CNF) (nN)	First Distribution (mV)	Second Distribution (mV)	Third Distribution (mV)
Pure GaN NWs	120	58 ± 75	242 ± 58	509 ± 54
	160	100 ± 89	373 ± 55	528 ± 37
	180	123 ± 88	306 ± 88	499 ± 48
	280	211 ± 71	407 ± 58	529 ± 31
	330	--	335 ± 82	526 ± 39
	380	250 ± 42	383 ± 57	517 ± 40
GaN/Al ₂ O ₃ core-shell NWs	120	49 ± 33	182 ± 53	446 ± 86
	160	67 ± 55	289 ± 74	481 ± 52
	180	55 ± 53	243 ± 67	476 ± 61
	280	127 ± 69	318 ± 63	472 ± 74
	330	87 ± 68	332 ± 60	504 ± 62
	380	--	302 ± 63	503 ± 57