Effect of Seed Layer on Structural Properties of ZnO Nanorod Arrays Grown by Vapor-Phase Transport

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Supporting Information Available

Table S1. Deposition conditions of ZnO seed layer films.

Deposition techniques	Base pressure (Pa)	O_2:Ar	Work pressure (Pa)	T_{sub} (°C)	Thickness (nm)
DC sputtering with Zn target	4.1×10^{-4}	0:1	1.0	RT	180 [a]
Reactive DC sputtering with Zn target	5.0×10^{-4}	1:4	5	300	200
Reactive RF sputtering with ZnO target	6.5×10^{-4}	1:4	0.5	300	250
PLD with ZnO target	1.0×10^{-3}	1:0	0.02	300	240

[a] The thickness indicates the Zn film after thermal oxidation.

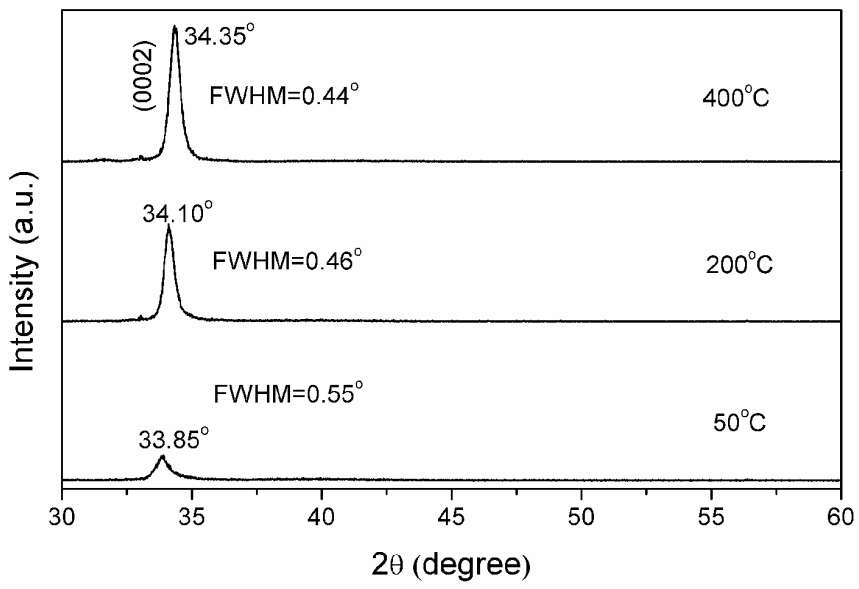

Figure S1. XRD patterns of ZnO seed layer deposited by rf sputtering at substrate temperatures of 50 °C, 200 °C, and 400 °C.

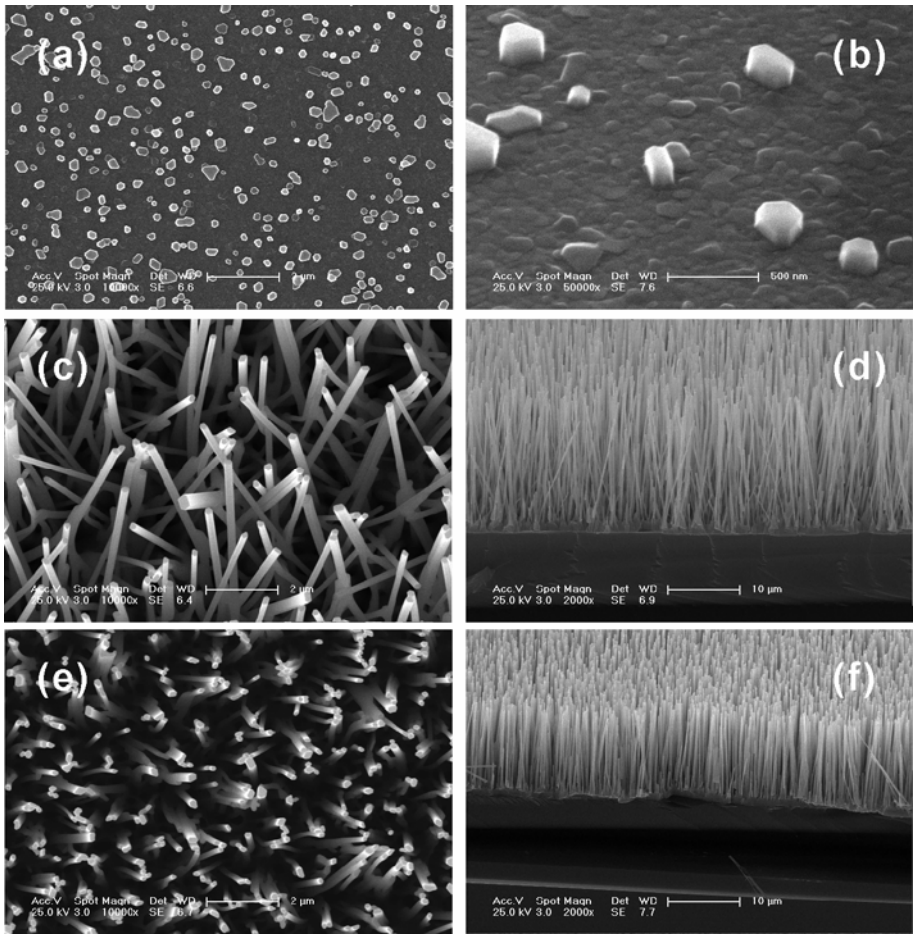

Figure S2. SEM images of ZnO nanorod arrays grown on rf sputtered seed layer deposited at (a), (b) 50 °C; (c),(d) 200 °C; and (e),(f) 400 °C with the same nanorod growth conditions.