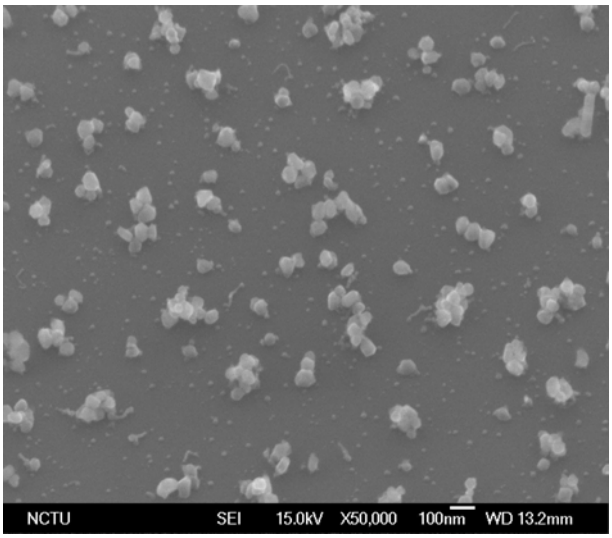
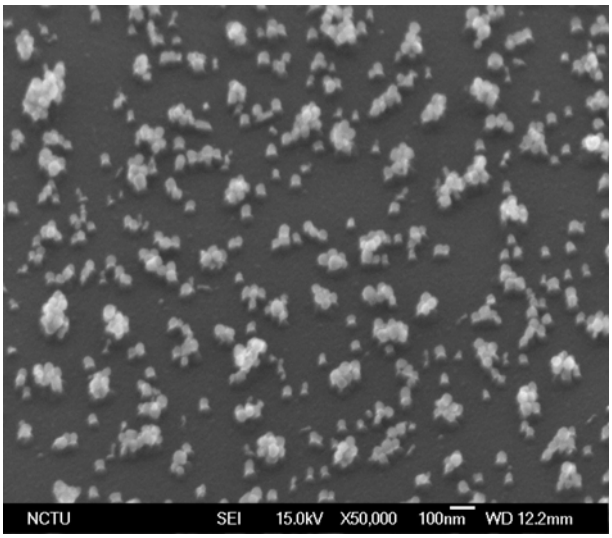
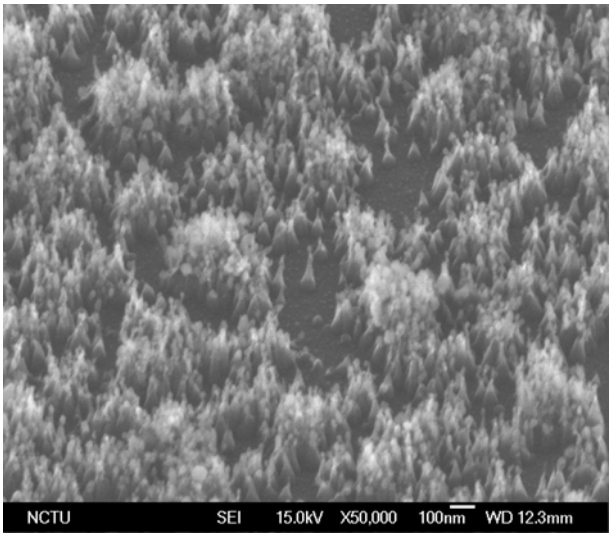


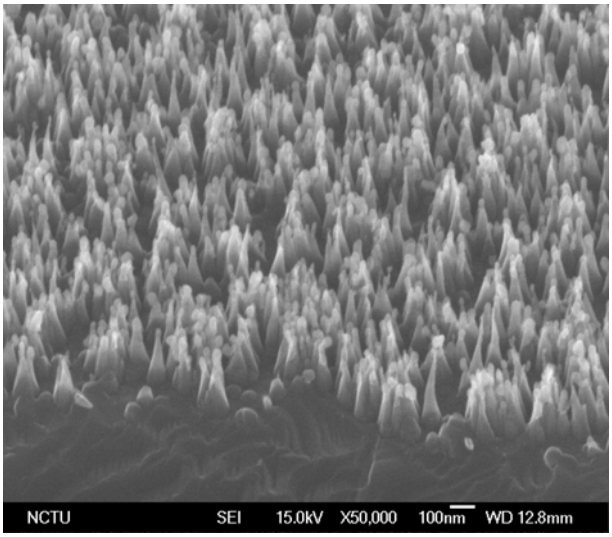
(a)



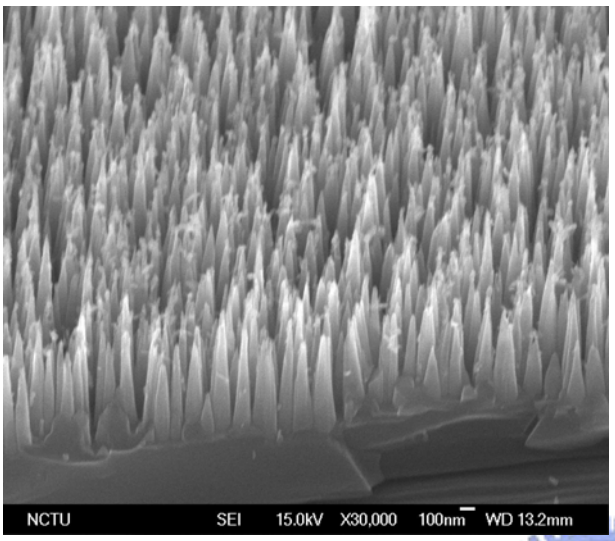
(b)



(c)



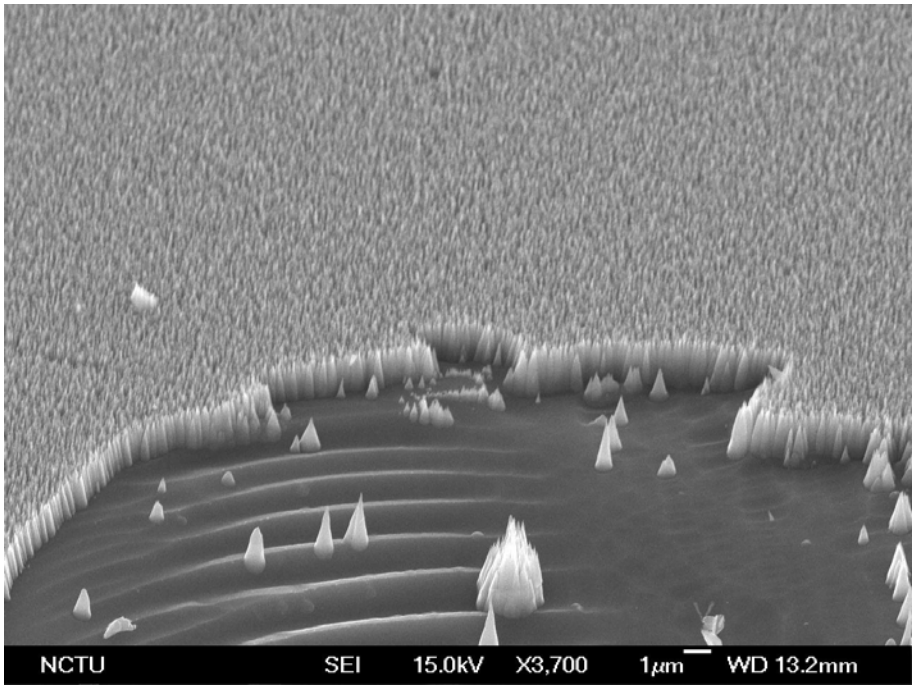
(d)



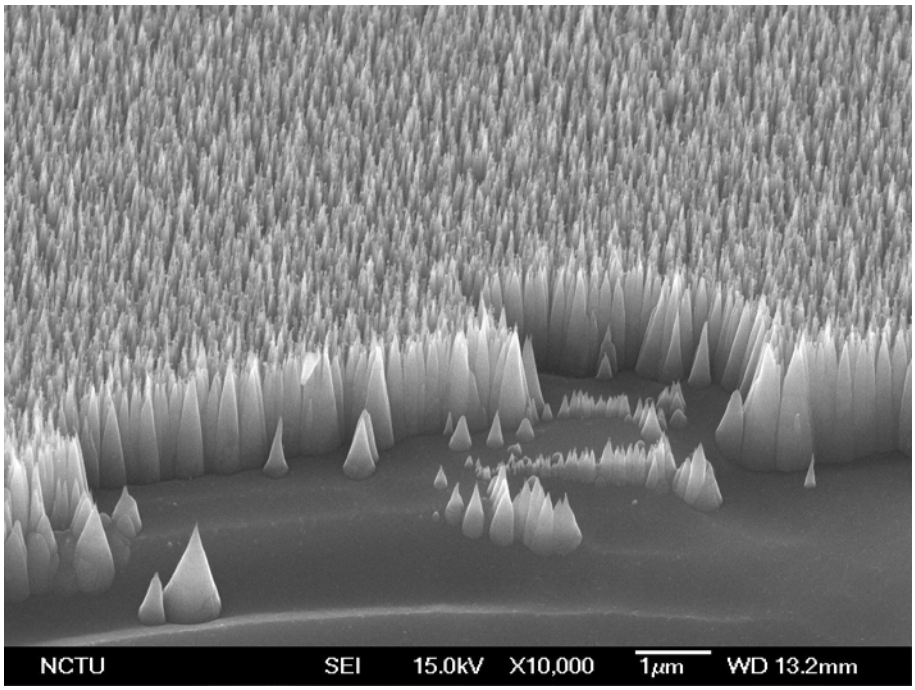
(e)

(a) Specimen B1 0V	(b) Specimen B2 -50V
(c) Specimen B3 -150V	(d) Specimen B4 -200V
(e) Specimen B5 -300V	

Figs.4-23 Morphologies of as-grown CNCs under different negative applied bias.

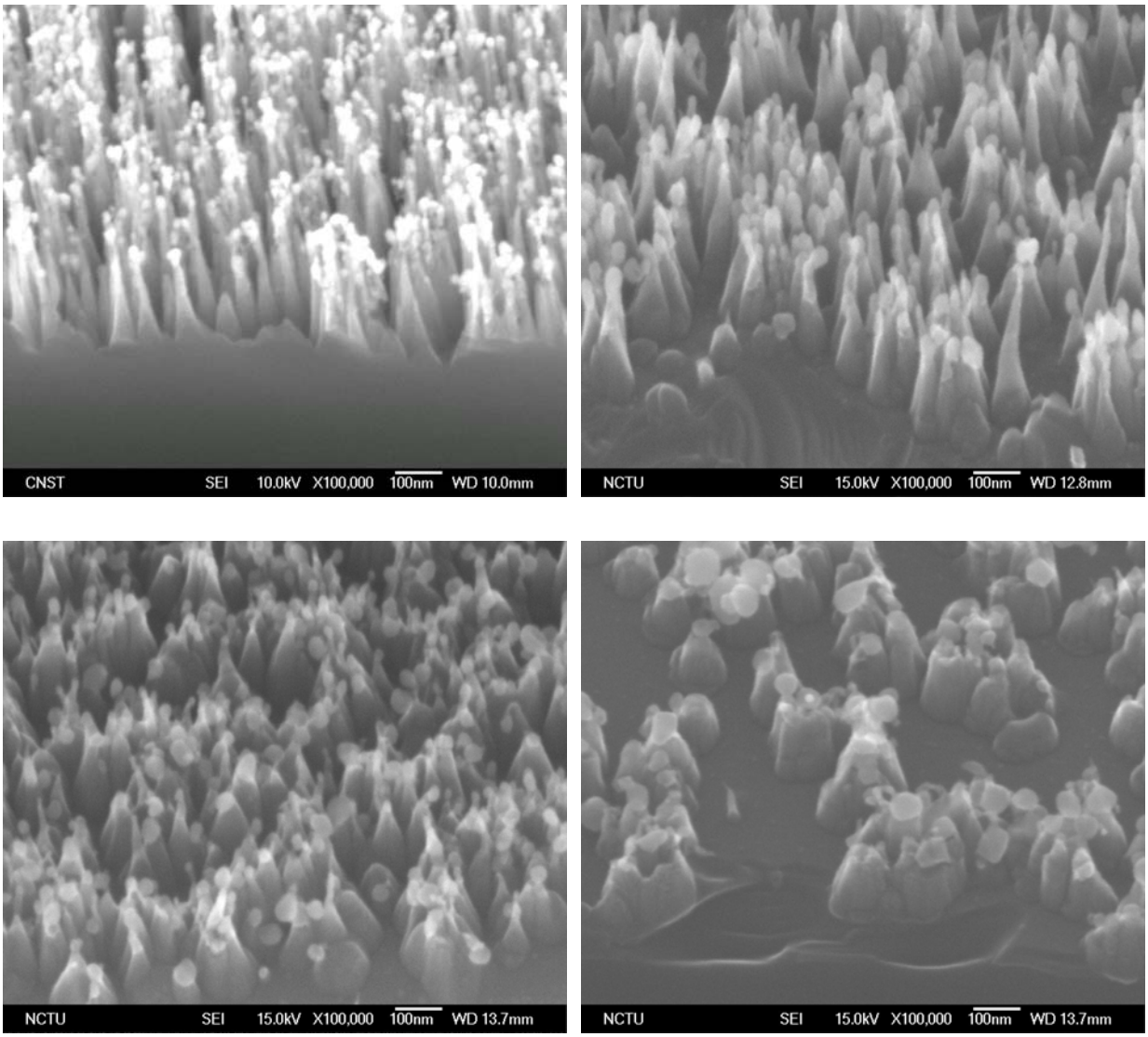


(a)



(b)

Figs.4-24 (a) and (b) are the high magnification SEM images of Specimen B5. The image (b) is corresponding to the mage (a) at high magnification.



(a) Specimen B6 H_2/CH_4 = 80/1	(b) Specimen B7 H_2/CH_4 = 80/5
(c) Specimen B8 H_2/CH_4 = 80/10	(d) Specimen B9 H_2/CH_4 = 80/15

Figs.4-25 (a) to (d) show the morphologies of as-grown CNCs under different H_2/CH_4flow ratio

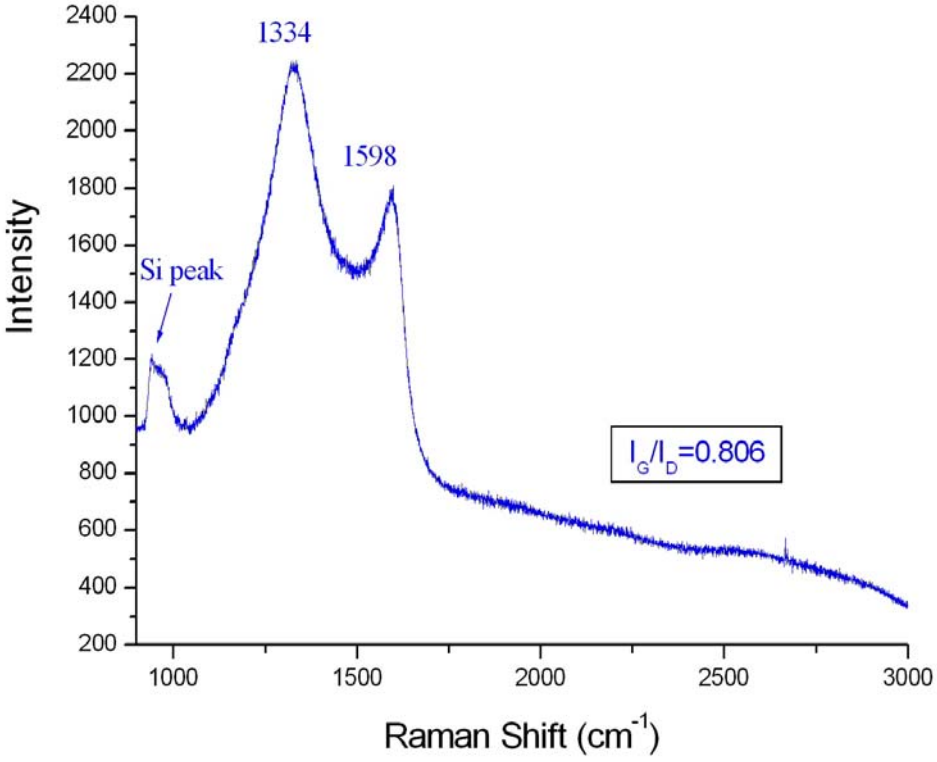


Fig. 4-26 Raman spectrum of as-grown CNCs for Specimen B5