Growth of carbon nanotubes on metal substrates using plasma-enhanced chemical vapor deposition

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Carbon nanotubes have a lot of attractive properties for application of various field. Especially, high aspect ratio and ability of high electron transport can make carbon nanotubes to electron field emitter. Vertically aligned carbon nanotubes on metal substrates were synthesized by plasma-enhanced chemical vapor deposition at 500~600°C with gas mixture C_{2}H_{2} and NH_{3}, their structure was investigated by scanning electron microscopy and transmission electron microscopy.