

Abstract Submitted
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Growth of carbon nanotubes by the pyrolysis of thiophene¹ GAO-HUI DU, WENZHI LI, Department of Physics, Florida International University, Miami, FL 33199 — Branched carbon nanotubes have been reported and produced by the pyrolysis of metallocene-thiophence mixture. In our experiments, we prepared the carbon nanotubes (CNTs) by the pyrolysis of thiophene as the carbon source over cobalt catalysts. The lengths of carbon nanotubes can reach 0.5-1 mm for the growth time of 15 min. The effects of flow rate and temperature on the growth of CNTs have been investigated. The branched carbon nanotubes were also found in the experiments, showing Y-junction or T-junction, even connecting each other to form a web. The growth mechanism of the branched CNTs was studied using transmission electron microscopy. The electron transportation properties along these branched CNTs are under investigation.

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