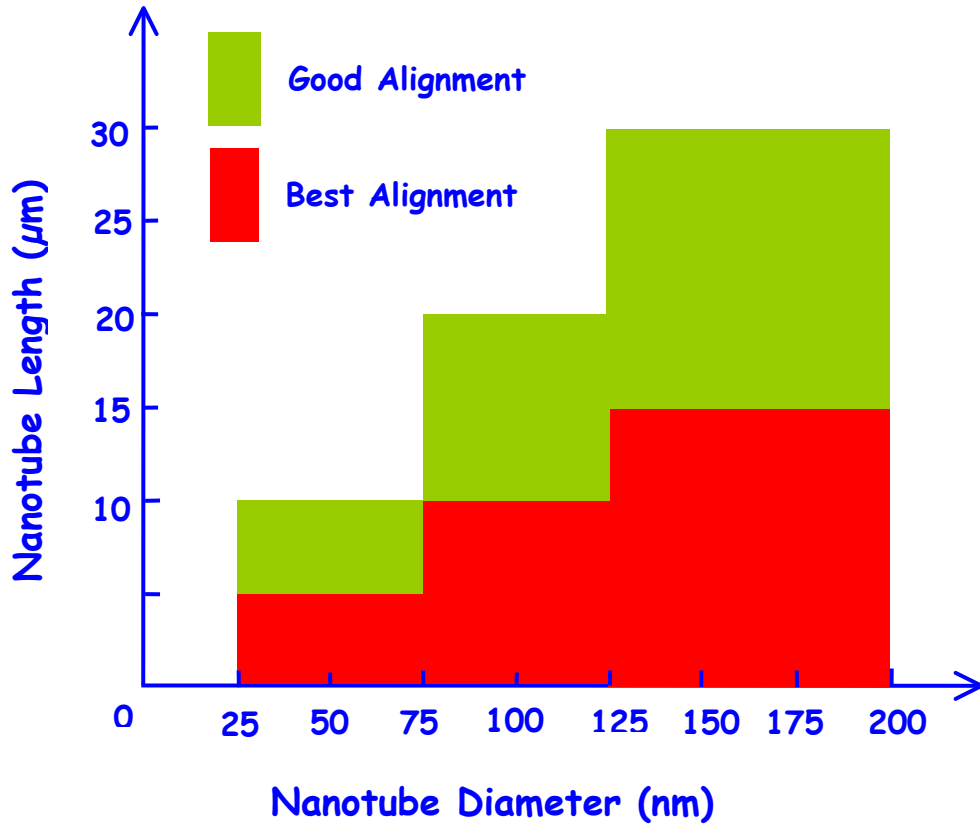


Data Sheets for Aligned Carbon Nanotube Arrays

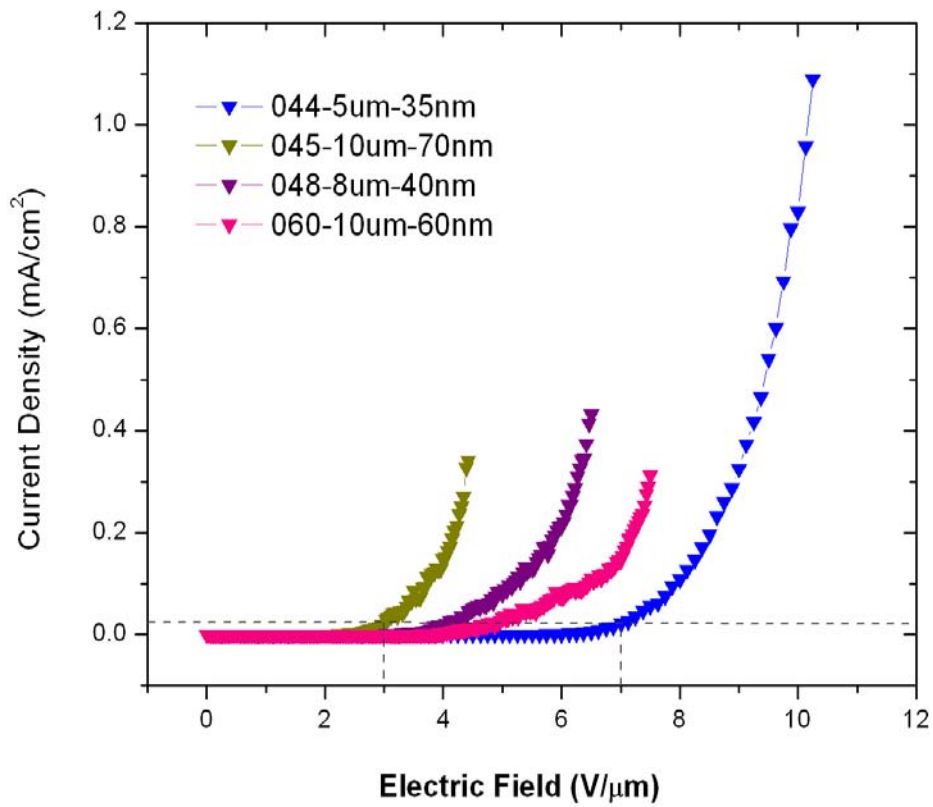
I. Alignment with Length and Diameter of Carbon Nanotubes for Standard Carbon Nanotube Arrays



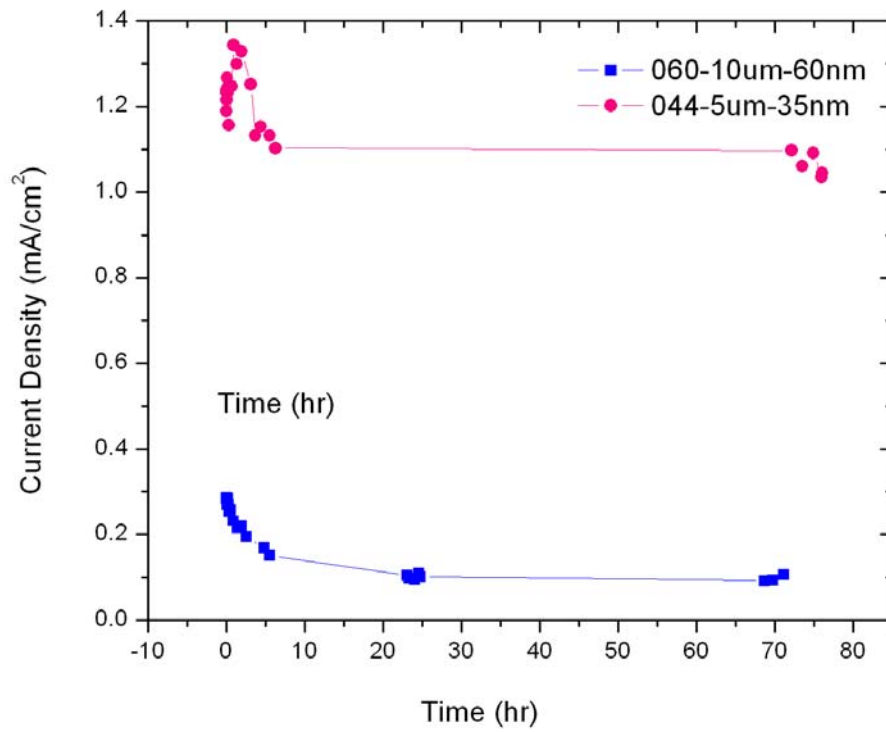
II. Field Emission Characteristic of Aligned Carbon Nanotube Arrays

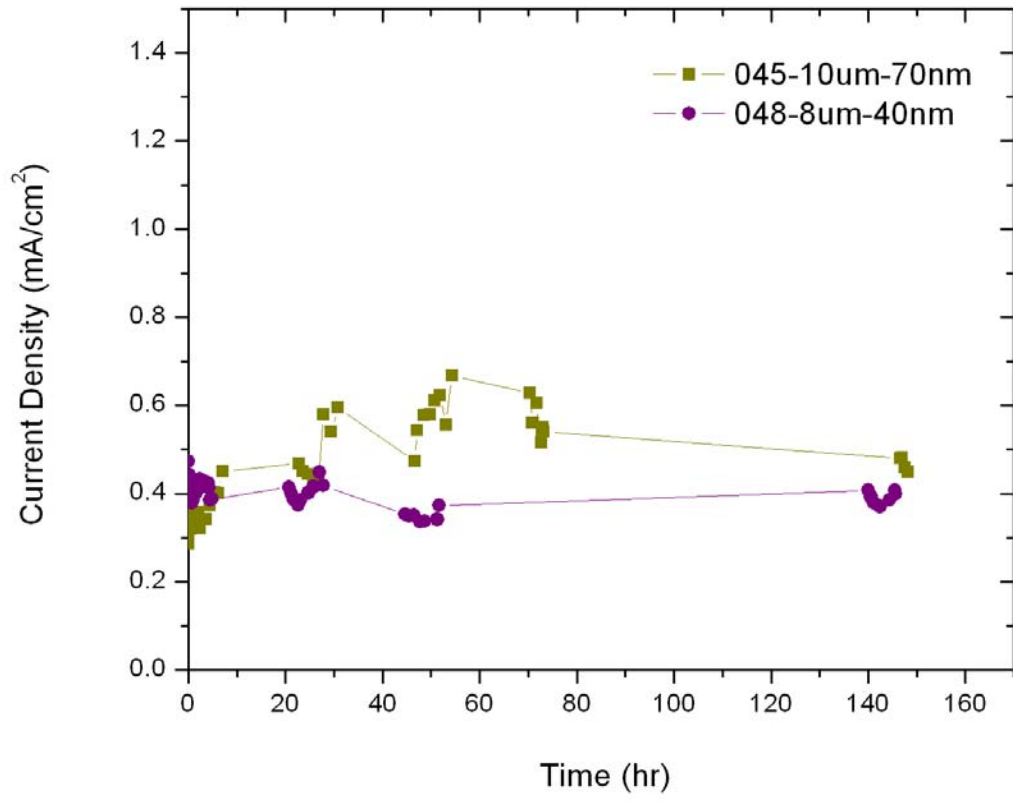
Field emission characteristic of aligned carbon nanotube arrays was measured at 10^{-7} Torr pressure, using a diode configuration (Molybdenum anode ϕ 5 mm, 300 μ m spacer between two electrodes).

(1) Field Emission I-V Characteristics of Standard Arrays

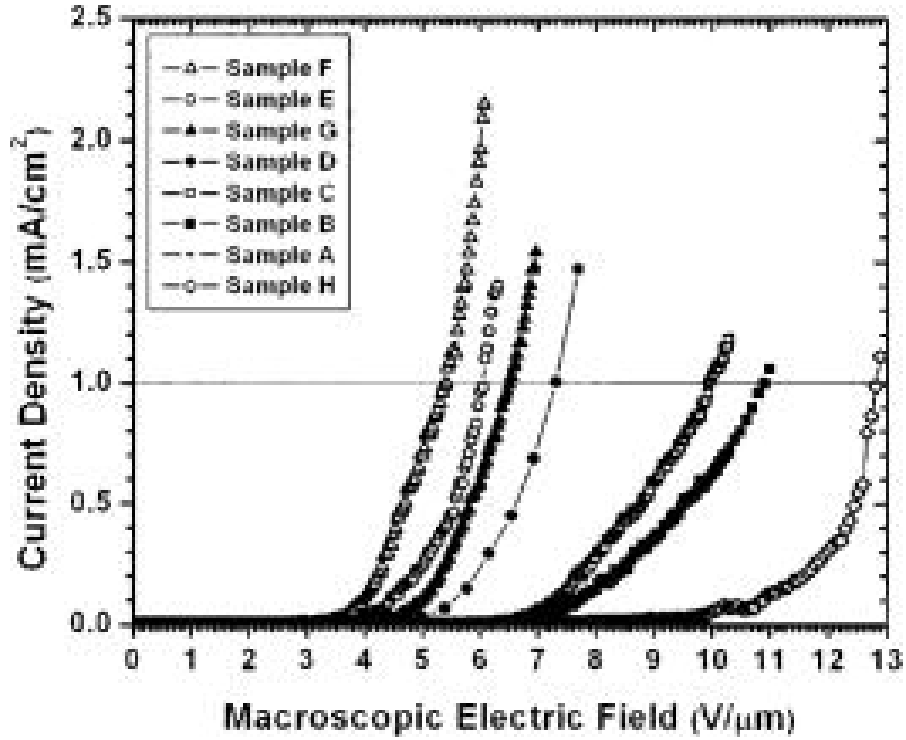


(2) Long-Term Field Emission Stability of Standard Arrays at Constant Voltage





(3) Field Emission I-V Characteristic of Low Site Density of Arrays



Sample	Length (μm)	Density (/cm ²)
A	4.0	6×10 ⁶
B	5.5	5×10 ⁶
C	7.0	2×10 ⁶
D	8.5	1×10 ⁶
E	10.5	1×10 ⁶
F	12.5	3×10 ⁶
G	12.5	6×10 ⁶
H	8.5	4×10 ⁷