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**Parallel fabrication of CMOS compatible single walled carbon nanotube field effect transistor and single electron transistor devices<sup>1</sup>**  
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Parallel fabrication of Complementary Metal Oxide Semiconductor (CMOS) compatible single walled carbon nanotube (SWNT) electronic devices is of great importance for nanoelectronic applications. Here we will summarize our recent progress on the fabrication of SWNT field effect transistors (FETs) and single electron transistors (SETs) with high yield using high quality SWNT aqueous solutions in combination with AC dielectrophoresis. We will show high quality FET devices using individual as well as aligned arrays of SWNTs. We will also demonstrate controlled fabrication and low temperature electron transport properties of SWNT SETs using a novel mechanical templating technique that we have recently developed.

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