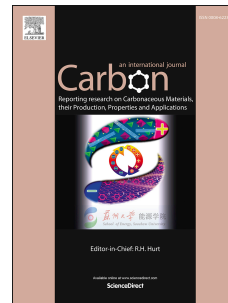


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Direct nanomechanical characterization of carbon nanotube - Titanium interfaces

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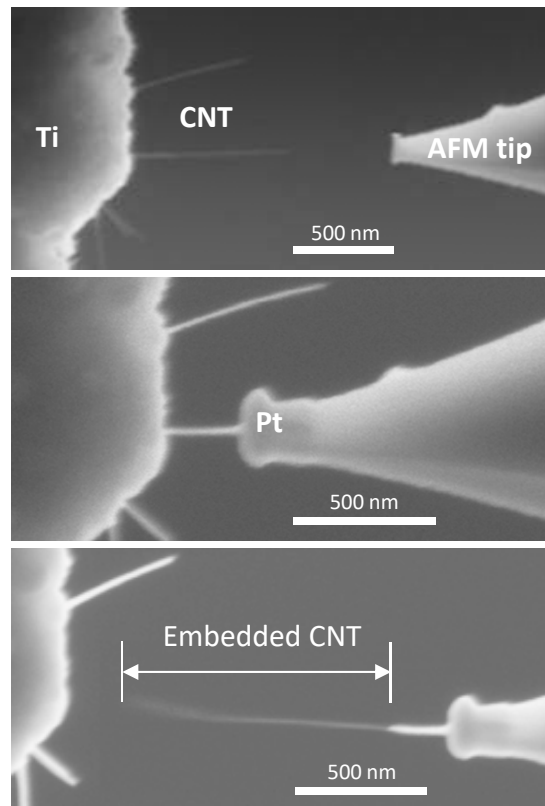
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Graphic Abstract



The mechanical strength of interfaces in double-walled carbon nanotube (CNT)-reinforced titanium (Ti) nanocomposites was characterized by using *in situ* electron microscopy nanomechanical single tube pull-out techniques. The nanomechanical measurements reveal a shear lag effect on the CNT-Ti interface and show that the CNT-Ti interface is much stronger than the interface formed by CNTs with aluminum (Al).

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