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**Simultaneously enhancing the IFSS and monitoring the interfacial stress state of GF/epoxy composites via building in the MWCNT interface sensor**

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**Abstracts:** This paper presents an effective technology that could simultaneously enhance the interfacial shear strength (IFSS) and monitor the interfacial stress state between glass fiber and epoxy vinyl ester resin (GF/epoxy). Multi-walled carbon nanotube (MWCNT) was added to aqueous surfactant solution and dispersed by ultrasonic. Subsequently, MWCNT was deposited on GF surface by physical vapor deposition. The results show that the sensing performance of the developed sensor was dependence on MWCNT solution concentration, interface length, ultrasonic dispersion

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