Pivotal role of tryptophan-derived indole nitrogen in carbon dot system and highly sensitive and fluorescent thioacetamide sensor

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Carbon Dots (CDs) are emerged as promising nanomaterials because of abundant oxygen, nitrogen functionalities which trigger specific interaction with chemical species in an attempt to apply on sensing system. Controlling surface functionalities in carbon dots system is main key for obtaining highly sensitive nano-sensor. Indole nitrogen species in carbon dots act as a important role in photo-induced electron transfer (PET) sensing mechanism for thioacetamide sensor.