

(54) Title of the invention : A BIOSENSOR SYSTEM FOR FLUORESCENCE RESONANCE ENERGY TRANSFER (FRET) ASSAY

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(57) Abstract :

The present disclosure relates generally to the field of biosensors. Specifically, the disclosure provides a biosensor system for fluorescence resonance energy transfer (FRET) assay. More specifically, the disclosure is directed to a biosensor system for fluorescence resonance energy transfer (FRET) assay comprising graphene quantum dots immobilized with an antibody specific to Estrogen receptor alpha (ERa) or progesterone and a fluorescent dye. The graphene quantum dots are blue graphene quantum dots or green graphene quantum dots. The system provides real-time and ultrasensitive detection of ERa and progesterone.

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