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## Silver Nanoprisms-Based Tb(III) Fluorescence Sensor for Highly Selective Detection of Dopamine

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**TAL-D-16-02484 Revised Manuscript****Silver Nanoprisms-Based Tb(III) Fluorescence Sensor for  
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**ABSTRACT:** Dopamine (DA) is one of catecholamines and related to several neurological diseases. The selective determination for DA against other catecholamines is crucial in clinical diagnoses. In this work, a simple and reliable Tb(III)-based fluorescence sensor was constructed for the highly selective and sensitive detection of DA. Silver nanoprisms (AgNPrs) with suitable localized surface plasmon resonance bands were controllably synthesized to act as optimal platforms for surface enhanced fluorescence (SEF), while acetate was adopted to be a distance adjusting spacer for SEF and a recognizing component for DA. A fluorescence-enhanced Tb(III) composite sensor via the synergistic action of AgNPrs

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