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### **ACCEPTED MANUSCRIPT**

# An ultrasensitive sandwich type electrochemiluminescence immunosensor for triiodothyronine detection using silver nanoparticle-decorated graphene oxide as a nanocarrier

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### **Abstract**

An ultrasensitive electrochemiluminescence (ECL) immunosensor was constructed to detect 3,3',5-triiodothyronine (T3). The system employed T3-conjugated, silver nanoparticle-decorated carboxylic graphene oxide (Ag@fGO-T3) as a carrier and anti-T3 antibody-tris(2,2'-bipyridyl) ruthenium(II) (Ru(bpy)<sub>3</sub><sup>2+</sup>) as a probe. The Ag@fGO-T3 and Ru(bpy)<sub>3</sub><sup>2+</sup> complex could be

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