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Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2014_IJBcRR_15254
Title of the Manuscript:	Fluorescent Detection of specific DNA sequences related to <i>Toxoplasma gondii</i> based on Magnetic Fluorescent Nanoparticles
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	1. Abstract. The first sentence is imprecise....were prepared in this paper should read were prepared in this work. 2. Introduction, second paragraph. Put dot after citing references. For example...[2,4]. The same thing goes to other places in the text. Lower case for B in Broad. 3. Wang. et al [8] prepared luminescent Fe₃O₄/CdTe nanocomposites. The authors also prepared Fe₃O₄/CdTe nanoparticles. What is the difference between your sample and that of Wang? 4. Experimental section, page 2, line 74. Was got should read was obtained. 5. Page 3, spelling error for spectroscopy. It should read spectroscopy. 6. It is better to merge the subsections of preparation of Fe₃O₄/CdTe, construction of Fe₃O₄/CdTe conjugated molecular beacon probe and hybridization of target DNA under one subsection, "of preparation of Fe₃O₄/CdTe". 7. Imprecise statement about infrared spectroscopy. It used to study the chemical structure not structure as claimed on page 3. The size should read particle size on page 3. 8. Please label the samples (1 h to 6 h) in Fig. 1(A). It is mentioned about FWHM in the discussion on optical property. From where the author got the FWHM? The XRD patterns of 1-6 h samples were not presented. 9. As the title of the manuscript suggest Fe₃O₄/CdTe nanoparticle, why the figure caption for Fig. 3(b) and Fig. 4(b) mention Fe₃O₄-KH550 nanoparticle.	1. Thank you for your remind, we have corrected the mistake in the paper. 2. Thank you for your remind, we have corrected the mistakes in the paper. 3. Thank you for your question. Wang and our paper used different modifiers to react with Fe₃O₄. Wang chose tetramethylammonium hydroxide and we chose KH550. In addition, the reaction time, temperature and some agents were also different in the experiment. 4. Thank you for your remind, we have corrected the mistake in the paper. 5. Thank you for your remind, we have corrected the mistake in the paper. 6. Thank you for your comment, but the three parts are the three steps of the experiment, which all belong to the "Methods", so we keep it as original. I am very grateful for your understanding. 7. Thank you for your remind, we have corrected the mistakes in the paper. 8. Thank you for your advice. In this article, we have labelled the samples in Fig. 1A, and I am very sorry that mislead you. In our paper, we got FWHM from Fig. 1A. The six curves had different FWHM which was broadened from 42.6nm to 61.2nm. 9. It is our apology about this negligence, we added the title in line 163. In this subsection,



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	10. The peak at 2830 and 1637 cm^{-1} in Fig. 3(b) were not discussed. The same thing goes to the peak at 1627 cm^{-1} in Fig. 3(a). 11. Line 184, "XRD is another....for the surface structure studies" is incorrect statement. Please delete it. The sentence in line 184-186 should be since it concerned with theoretical background. 12. The scherrer equation should be put in the experimental section. 13. The Fe_3O_4 nanoparticles size calculated from Scherrer's formula is 5.24 nm. However, the nanoparticle size of 10 nm obtained from TEM image is for $\text{Fe}_3\text{O}_4/\text{CdTe}$. 14. In Fig. 7, $\text{Fe}_3\text{O}_4/\text{CdTe}$ is not labelled. 15. the first sentence in the paragraph discussing the fluorescence needs to put in the experimental section. 16. The conclusions need to be re-written by drawing the conclusions on the results of absorbance, fluorescence, TEM, FT-IR, zeta potential and XRD. The same thing goes to the abstract.	$\text{Fe}_3\text{O}_4\text{-KH550}$ was characterized by FTIR and zeta-potential in Fig.3 and Fig.4 respectively. These results certified that KH550 had linked on the Fe_3O_4 surface. Fig.5 and Fig.6 were the characterization of XRD and TEM about $\text{Fe}_3\text{O}_4/\text{CdTe}$. These results also show that CdTe QDs have been bound to the surface of Fe_3O_4 nanoparticles. Therefore, we added a title to make it clearer. 10. The peaks at 1627 cm^{-1} (Fig. 3a) and 1637 cm^{-1} (Fig. 3b) are due to the bending vibration of O-H. The peak at 2830 cm^{-1} which we marked is wrong, and we have corrected it to 2375 cm^{-1}, which belongs to the vibration of $\text{O}=\text{C}=\text{O}$ (CO_2). It's a great pity that this interference peak cannot be eliminated because of the limit of our instrumental conditions. 11. Thank you for your remind. We have corrected it in the paper. But I'm very sorry that I cannot understand the second sentence in your comments. In this revised article, we have checked this part again. If you have any question about this, please contact us, we will give you the corresponding explain. 12. Thanks for your remind, as your comments, we have put the scherrer equation in the experimental section in the paper. 13. Thank you for your comment, the explanation of the problem is in line 212 to line 215, "the spherical Fe_3O_4 particles may contain a number of ultra-small crystals". 14. Thank you for your review, we have labelled the $\text{Fe}_3\text{O}_4/\text{CdTe}$ in Fig. 7.
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		15. Thank you for your remind, we have optimized the order in the paper. 16. Thank you for your advice, we have re-written the abstract and the conclusion as your comments.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		