



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_3803
Title of the Manuscript:	Effect of Sodium Carboxymethyl Cellulose concentration on the Photophysical Properties of Zinc Sulfide Nanoparticles

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The authors object to the reviewer's comment about coherence length for x-ray diffraction, claiming that "Coherent diffraction occurs when the wavelength of X-ray is less than the path length, contrary to the reviewers' position. The reviewer is referred to other articles involving ZnS capped with ZnO." First, the authors definition of coherent diffraction makes no sense. The reviewer refers the authors to an explanation of coherence length (see for example, http://www.esrf.eu/events/conferences/Tutorials/slideslecture1) for an explanation that the coherence length for XRD is $\lambda^2/\Delta\lambda$. The reviewer still maintains that it would not be possible to see coherent diffraction from the surface shells on ZnS core nanoparticles. The authors claim that their analysis of particle growth by red shift of PL data is valid but admit that the data in table 1 and figure 6 are not monochromatic with respect to their expected shell thickness. The reviewer still maintains that the lack of measurement of the thickness of surface shells leads to mis-interpretation of the data.	We were looking at different type of coherent lengths; while you are considering the longitudinal coherent length we were referring to the transverse coherent length. In any case, from the TEM images we think you are right. We have therefore reconsidered my position and have made appropriate corrections. On the issue of determining shell thickness we are unable to do that now, but the consistency of the TEM results with other analysis is a pointer that our submission is valid. Moreover other works like Ref. 21 and 22 have earlier posited the variation of particle size with the amount of CMC. Therefore, we do not agree that the data might have been mis-interpreted especially with the present corrections.