



Universidade do Minho

Departamento de Química

Review on the dissertation work entitled “Synthesis and Photophysical Properties of New Fluorescence N-Triazinyl Derivatives”, presented for PhD degree, by Mervat Salah El-Sedik

The thesis is well organised, it is divided into three chapters, and includes 71 references. The first chapter, *Introduction*, includes a review of the synthetic methods to obtain derivatives of 2-aminoanthracene and also on absorption or emission processes.

Chapter two deals with the synthesis, absorption and fluorescence properties of monochromophoric compounds based on 2-aminoanthracene. The preparation of the compounds is described and they are characterized by the usual methods: proton and carbon NMR, mass spectrometry and elemental analysis. The UV/Vis absorption, fluorescence and excitation spectra as well as the fluorescence quantum yields of the compounds prepared were determined.

Chapter three presents and discusses the preparation of novel bi- and tri-chromophores containing 2-aminoanthracene as an energy donor and 3-aminoperylene or 3-aminobenzanthrone as an acceptor connected through a *s*-triazinyl ring. The compounds were characterized and their excitation and fluorescence properties are discussed in detail.

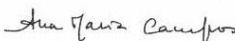
Some mistakes or typing errors may be found; I outline some of them in an adjoining page. They do not compromise the value of the thesis, but could be included as an erratum, if the author agrees with the suggestions.

Overall, the work is of a good standard. The author performed well in the laboratory and she was able to describe the results obtained in a comprehensive way. The photophysical characteristics of the compounds were discussed in detail, as expected from the expertise of the group where the candidate was included. She was a co-author of two publications (in *Dyes and Pigments*), related to the work described in this thesis, one of them in press.

I conclude by declaring that the author proved the ability to perform and describe scientific work and I recommend her thesis to be submitted to public examination.

Braga, Portugal, 04.01.2013

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