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A novel Biphenyl-derived salicylhydrazone Schiff base fluorescent probes for identification of Cu^{2+} and application in living cells

Yun-Shang Yang [a•], Suo-Suo Ma , Ying-Peng Zhang [a]*, Jia-Xi Ru[b], Xiao-Yu Liu [a] , Hui-Chen Guo [b]

[a]*School of Petrochemical Engineering, Lanzhou University of Technology, Lanzhou 730050, China*

[b]*State Key Laboratory of Veterinary Etiological Biology and Key Laboratory of Animal Virology of Ministry of Agriculture, Lanzhou Veterinary Research Institute, Chinese Academy of Agricultural Sciences, Lanzhou 730046, China*[a]

Abstract A novel biphenyl-derived salicylhydrazone Schiff base (**BSS**) fluorescent probes for highly sensitive and selective identification of Cu^{2+} has been synthesized. In addition, the recognition has been proved experimentally. The results indicited that the complex forms a 1:1 complex with Cu^{2+} shows fluorescent quenching. Furthermore, the detection limit of 1.54×10^{-8} M. More interesting, the probe **BSS** not only have a good biocompatibility in living cells, but also the sense behavior of Cu^{2+} in the cells nucleus.

Kewards Salicylhydrazone Schiff base; fluorescence; identification; Cu^{2+}.

1. Introduction

Copper followed by iron and zinc is the third most abundant transition elements in human body[1].The World Health Organization (WHO) report suggests that under

* Corresponding authors:
E-mail addresses: yangyunshang@tom.com (Y.-S Yang),yingpengzhang@126.com (Y.-P Zhang).