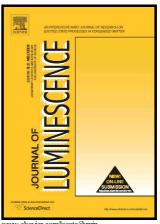
Author's Accepted Manuscript

Thermally Activated Delayed Fluorescence of Copper(I) Complexes using *N*, *N*'-heteroaromatic of 2-(5-phenyl-1,2,3- triazole)pyridine as ligand

Xu Huixia, Yang Tingting, Wang Fang, Zhang Jing, Zhang Xinwen, Wang Hua, Xu Bingshe



www.elsevier.com/locate/jlumin

PII: S0022-2313(18)30873-1

DOI: https://doi.org/10.1016/j.jlumin.2018.08.072

Reference: LUMIN15870

To appear in: Journal of Luminescence

Received date: 17 May 2018 Revised date: 22 August 2018 Accepted date: 24 August 2018

Cite this article as: Xu Huixia, Yang Tingting, Wang Fang, Zhang Jing, Zhang Xinwen, Wang Hua and Xu Bingshe, Thermally Activated Delayed Fluorescence of Copper(I) Complexes using *N*, *N*'-heteroaromatic of 2-(5-phenyl-1,2,3-triazole)pyridine as ligand, *Journal of Luminescence*, https://doi.org/10.1016/j.jlumin.2018.08.072

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Thermally Activated Delayed Fluorescence of Copper(I) Complexes using N, N'-heteroaromatic of 2-(5-phenyl-1,2,3- triazole)pyridine as ligand

Xu Huixia ^{1, 2} *, Yang Tingting ^{3*}, Wang Fang ^{1, 2}, Zhang Jing ^{1, 2}, Zhang Xinwen ^{4*}, Wang Hua ^{1, 2}, Xu Bingshe ^{1, 2}

¹ Key Laboratory of Interface Science and Engineering in Advanced Materials, Ministry of Education, Taiyuan University of Technology, Taiyuan 030024, China;

 2 Shanxi Research Center of Advanced Materials Science and Technology, Taiyuan 030024,

China;

³ School of Physics and Electronic Science, Shanxi Datong University, Datong 037009, P. R.

China;

⁴ Key Laboratory for Organic Electronics & Information Displays, Institute of Advanced Materials, Nanjing University of Posts & Telecommunications, Nanjing 210023, China

Abstract

complexes [Cu(PPh₃)₂(pptz)]BF₄ [Cu(POP)(pptz)]BF₄ Two Cu(I) and 2-(5-phenyl-1,2,3-three triazole)pyridine (pptzH), triphenyl phosphine (pph₃) and (bis-[2-(diphenyl phosphino) phenyllether) (POP) as ligands were synthesized and characterized. The complexes [Cu(PPh₃)₂(pptz)]BF₄ and [Cu(POP)(pptz)]BF₄ exhibit thermally activated delayed fluorescence (TADF) features with photoluminescence quantum yields (ϕ_{PL}) of 89.87 and 27.82 % at room temperature in solid state. The maximum emission peak of [Cu(PPh₃)₂(pptz)]BF₄ is located at 490 nm. The solution-processing organic-light emitting devices (OLEDs) were fabricated by using $[Cu(PPh_3)_2(pptz)]BF_4$ [Cu(POP)(pptz)]BF₄ and emitters and

Xu Huixia: xuhuixia@tyut.edu.cn; Yang Tingting: yangtt06000786@163.com; Zhang Xinwen: iamxwzhang@njupt.edu.cn

Download English Version:

https://daneshyari.com/en/article/9587259

Download Persian Version:

https://daneshyari.com/article/9587259

<u>Daneshyari.com</u>