Synthesis, aggregation-induced emission and electroluminescence properties of a novel compound containing tetraphenylethene, carbazole and dimesitylboron moieties

Heping Shi[a,b,d], Zhihua Gong[a], Dehua Xin[a], Jesse Roose[b], Huiren Peng[c], Shuming Chen[c*], Jacky W. Y. Lam[b], Ben Zhong Tang[b,d*]

(a) School of Chemistry and Chemical Engineering, Shanxi University, Taiyuan 030006, PR China. E-mail: hepingshi@sxu.edu.cn

(b) Department of Chemistry, Institute for Advanced Study, Division of Biomedical Engineering, Division of Life Science, State Key Laboratory of Molecular Neuroscience, Institute of Molecular Functional Materials, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong, China. E-mail: tangbenz@ust.hk

(c) Department of Electrical and Electronic Engineering, South University of Science and Technology of China, Shenzhen, Guangdong, 518055, P. R. China. Email: chen.sm@sustc.edu.cn

(d) State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou, Guangdong, 510640, PR China. E-mail: tangbenz@ust.hk

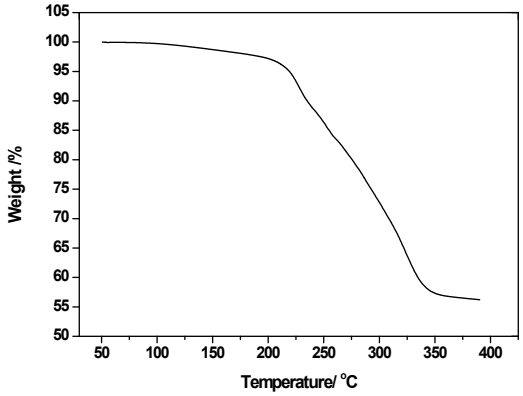

Fig. S1. TGA curve of BBDCZPD

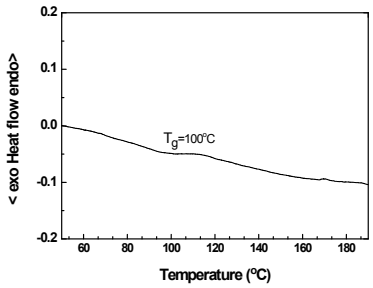

Fig. S2. DSC curve of BBDCZPD

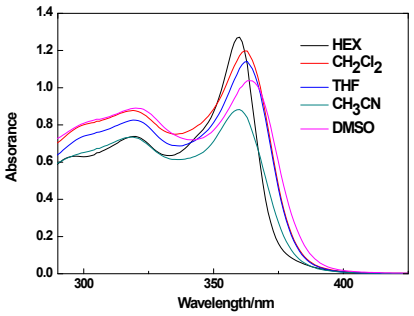

Fig. S3 UV-vis absorption spectra of BBDCZPD in various solvents

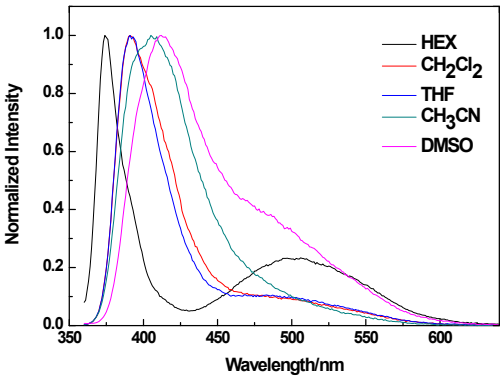

Fig. S4. Fluorescence spectra of BBDCZPD

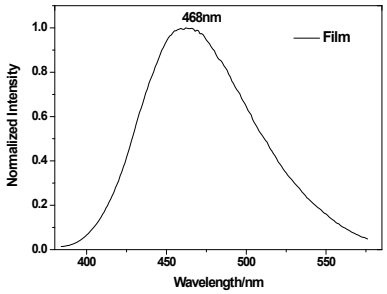

Fig. S5. The solid fluorescence spectrum of BBDCZPD

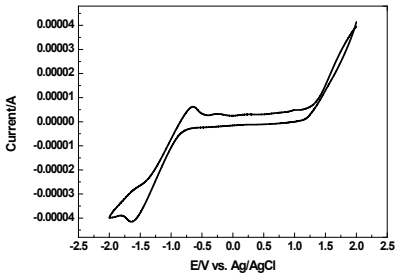

Fig. S6. Cyclic voltammogram of BBDCZPD

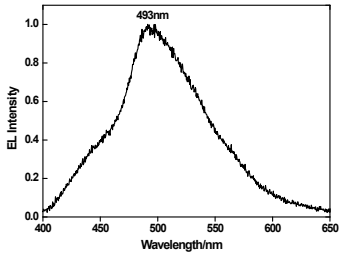

Fig. S7. EL spectrum of film of BBDCZPD

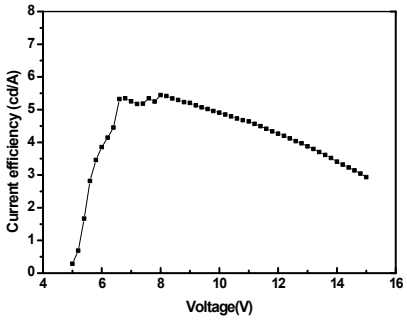

Fig. S8 Current efficiency-voltage curve of Device A