Electronic Supplementary Information for Dalton Transactions

Supporting Information

A Cyclometalated Iridium(III) Complex with Enhanced Phosphorescence Emission in the Solid State (EPESS): Synthesis, Characteristics, and its Application in Bioimaging

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Table S1. Absorption data of $Ir(ppy)_2(L1)$ and $Ir(ppy)_2(L2)$ in CH_2Cl_2.

complex	$\lambda_{abs}(\log\varepsilon)$ [nm]
$Ir(ppy)_2(L1)$	261 (5.08), 341 (4.34), 407 (3.91), 459 (3.74)
$Ir(ppy)_2(L2)$	261 (5.12), 341 (4.32), 407 (3.95), 459 (3.78)

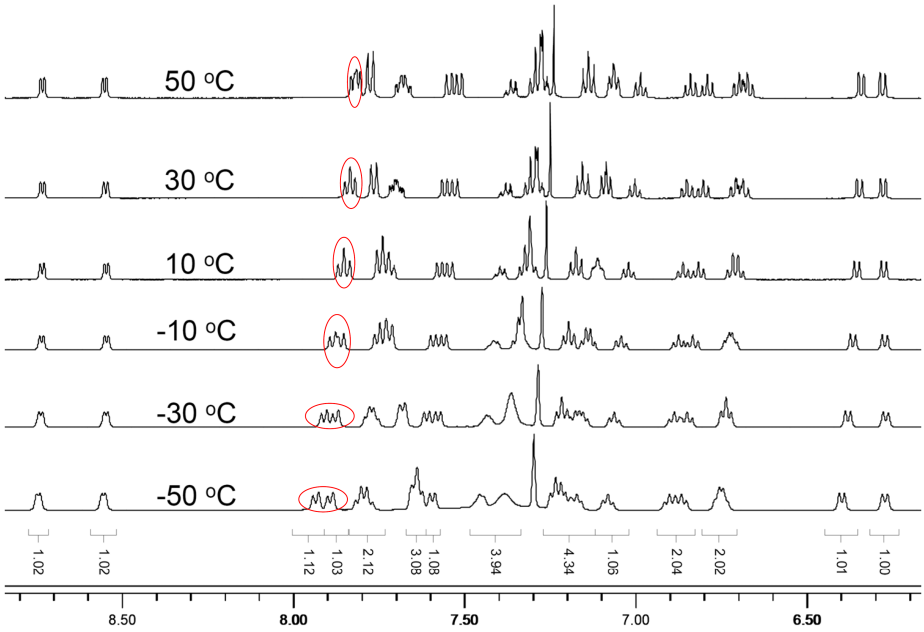


Figure S1. ^{1}H NMR spectra of Ir(ppy)$_2$(L1) ($CDCl_3$) in different temperature.

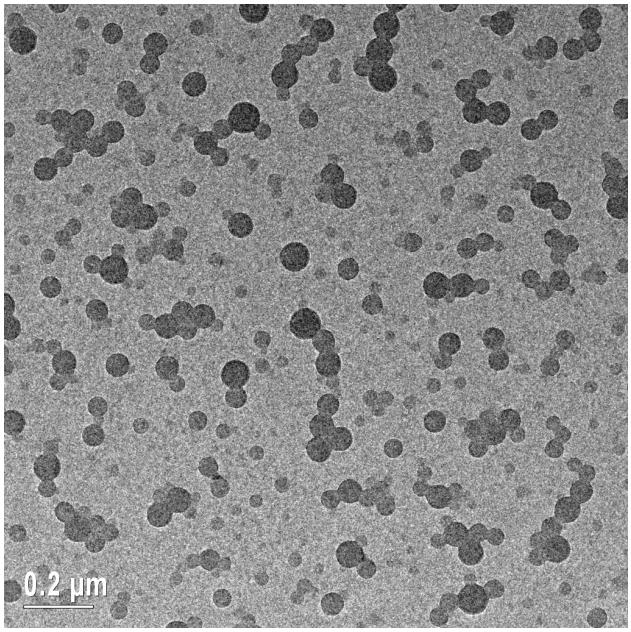


Figure S2. TEM image of Ir(ppy)$_2$(L1)-PNPs.

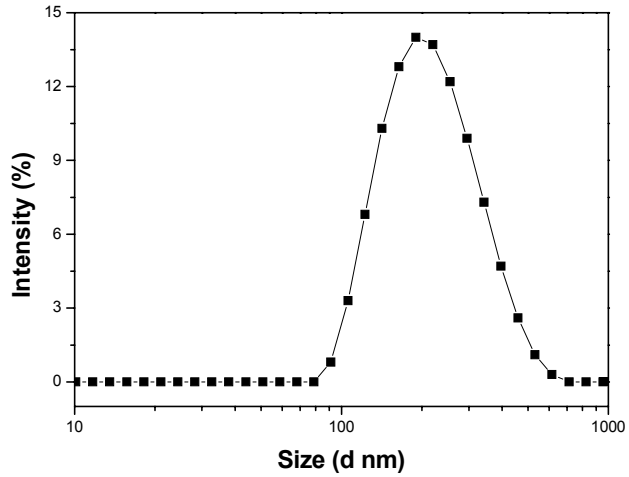


Figure S3. Size distribution of $Ir(ppy)_{2(}L1)$-PNPs.

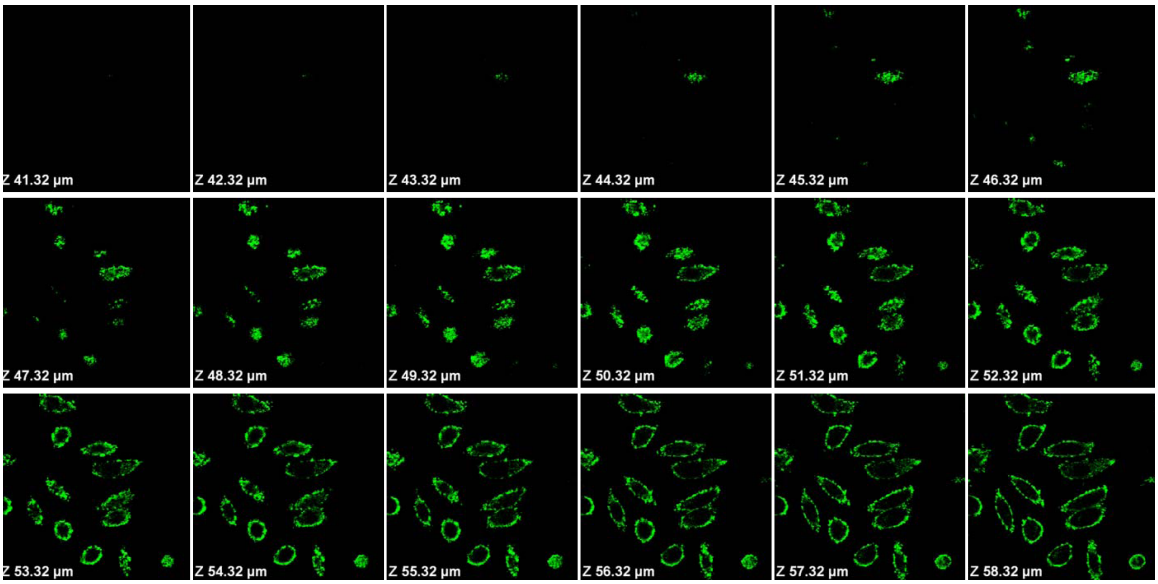
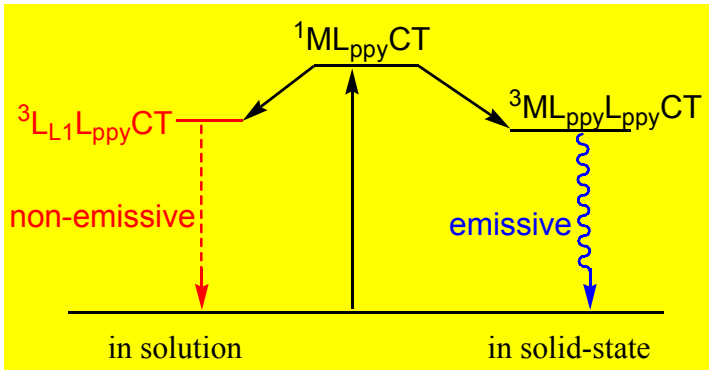


Figure S4. Z scans of $Ir(ppy)_{2(}L1)$-PNPs.



Scheme S1. Schematic representation of possible transition mechanism of $Ir(ppy)_2(L1)$ in solid-state.

Movie 1. The KB cells were incubated with $Ir(ppy)_2$(L1)-PNPs in RPMI 1640 for 8 min at 25 °C. Luminescence images of living KB cells are shown in the movie, which suggest that $Ir(ppy)_2$(L1)-PNPs were internalized into the cells and exclusively stained the cytoplasm rather than merely staining the membrane surface and nucleus.

Movie 1 (separate) is viewable using the free web browser plug-in Chime. For more information go to the Author Guidelines section of the RSC web site.