Supplementary Information (ESI)

Preparation of phosphorescent crystalline tris(1-phenylisoquinoline) iridium nanobelts via a recrystallization method

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Figure S-1. Packing mode of Ir(piq)₃ molecules along (1 0 0) face in crystal cell of the single crystals and the nanobelts.

Figure S-2. FT-IR spectra of the as-prepared Ir(piq)₃ nanobelts and Ir(piq)₃ bulk crystals, indicating that no chemical modification of Ir(piq)₃ molecules occurred in the as-obtained nanobelts during the recrystallization process in hot solvent.
Figure S-3a. The existence of spectral overlap between the optical absorption of Ir(piq)$_3$ and photoluminescence of Ir(ppy)$_3$, indicating the possibility of occurrence of resonance energy transfer from Ir(ppy)$_3$ to Ir(piq)$_3$.

(1) Ir(ppy)$_3$, Ir(piq)$_3$ and their doping system are all solubilized by polyvinyl alcohol (PVA) in water.
(2) Ir(ppy)$_3$, Ir(piq)$_3$ and their doping system are all solubilized by cetyltrimethylammonium bromide (CTAB) in water.

**Figure S-3b.** Enhanced photoluminescence of Ir(piq)$_3$ by the resonance energy transfer from the energy donor Ir(ppy)$_3$ in the doping system of Ir(ppy)$_3$/Ir(piq)$_3$ solubilized by (1) PVA and (2) CTAB.

**Figure S-4.** A triplet energy level diagram has been depicted according to Ref. 19.