Electronic Supplementary Material (ESI) for RSC Advances.

A high-quantum-yield two-way conversion luminescent oligomer: 1, 4-butanediol-bis (5-carbonyl-3-carbethoxy-2-pyrazoline)

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Supporting Information

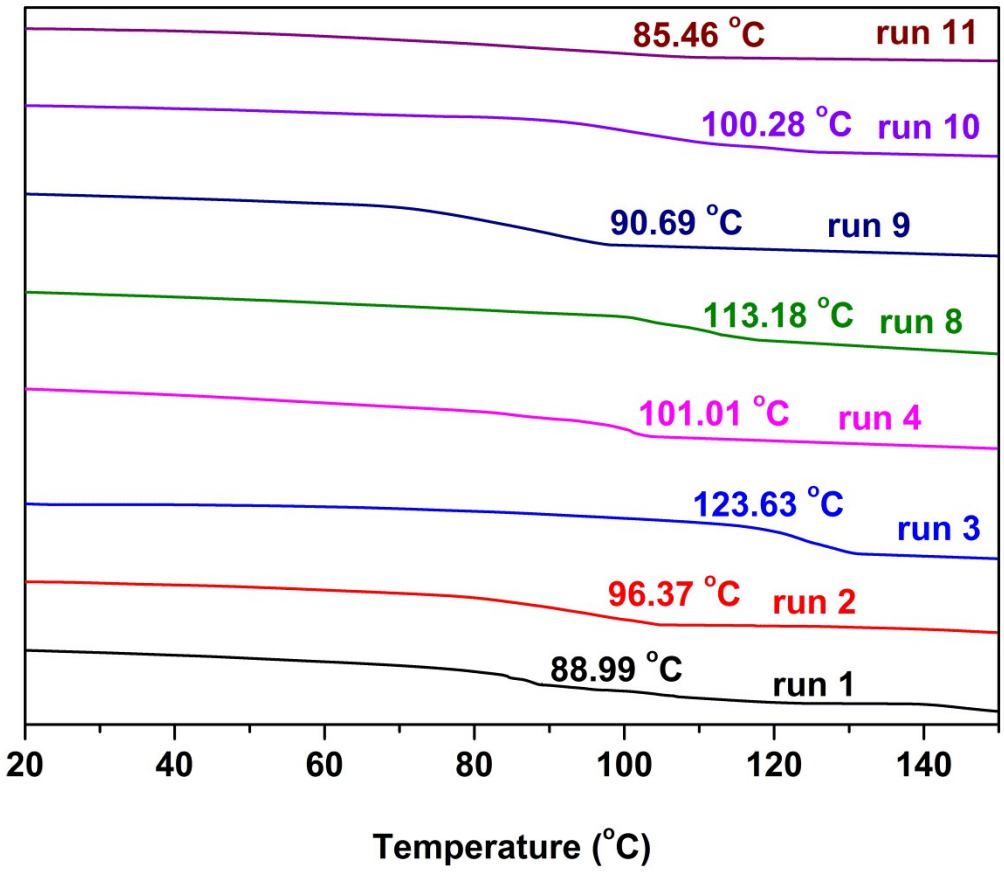

Figure S1. The differential scanning calorimetry (DSC) curves of the oligomers (run 1 to run 11).

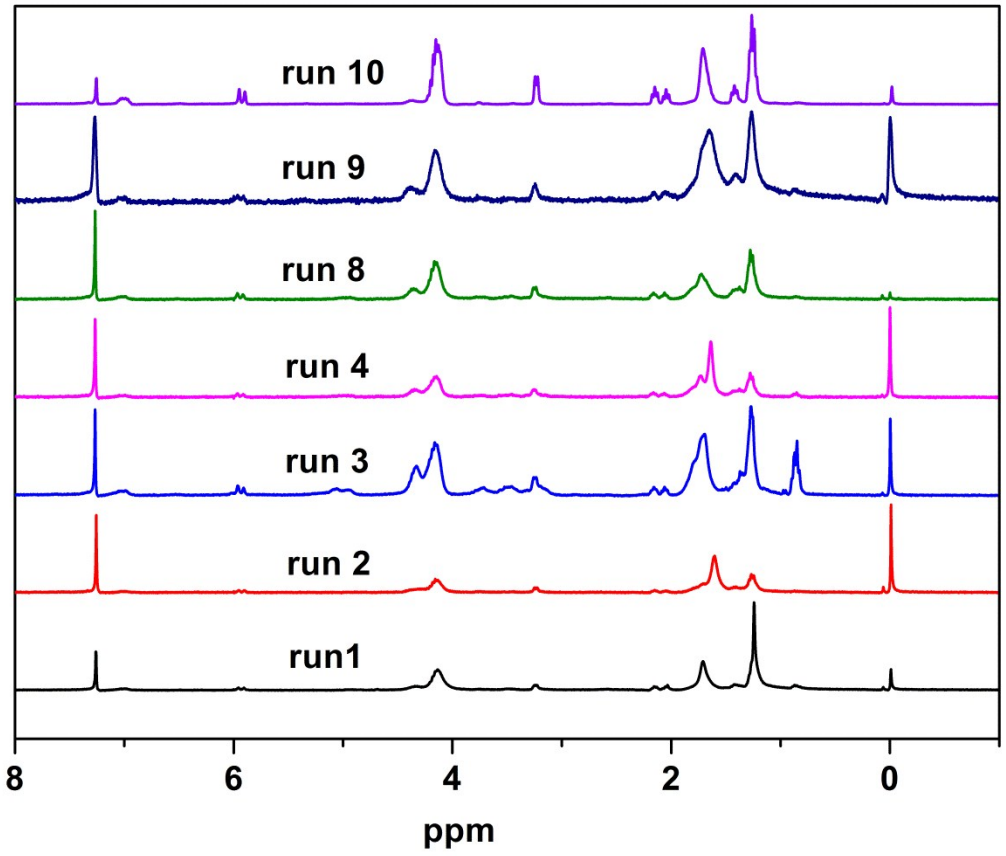

Figure S2. ^{1}H-NMR spectrum of the oligomers (run 1 to run 10).

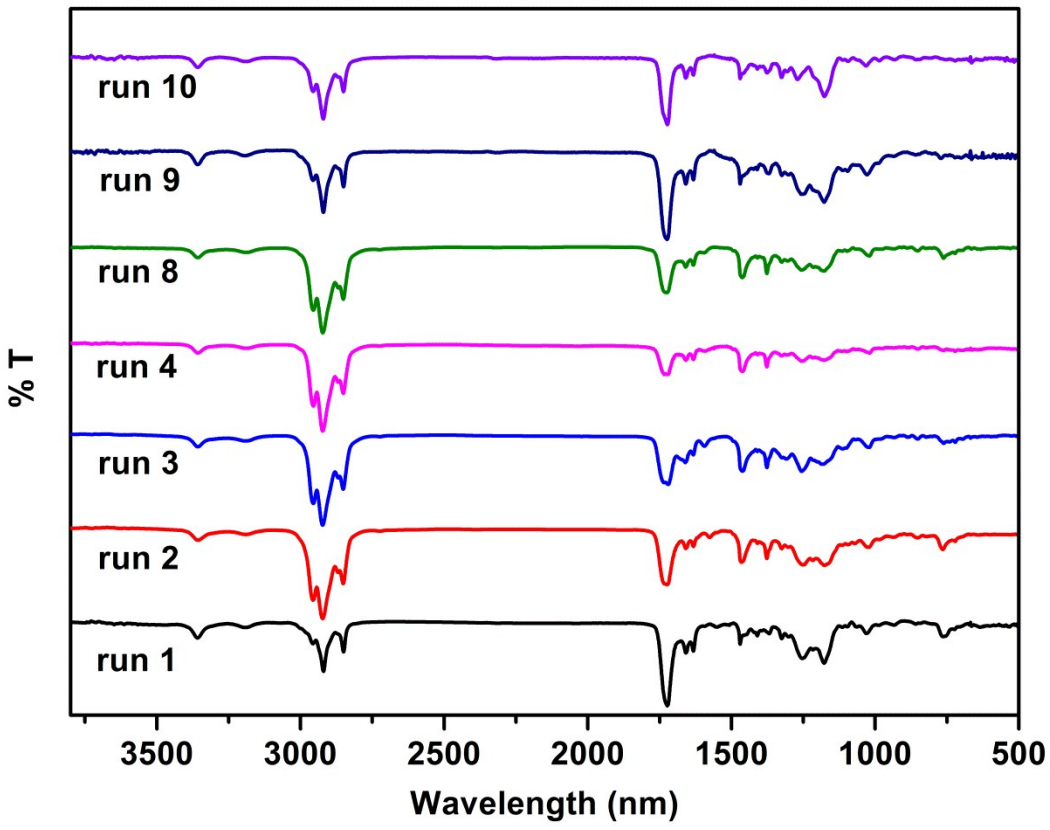

Figure S3. FT-IR spectrum of the oligomers (run 1 to run 10).

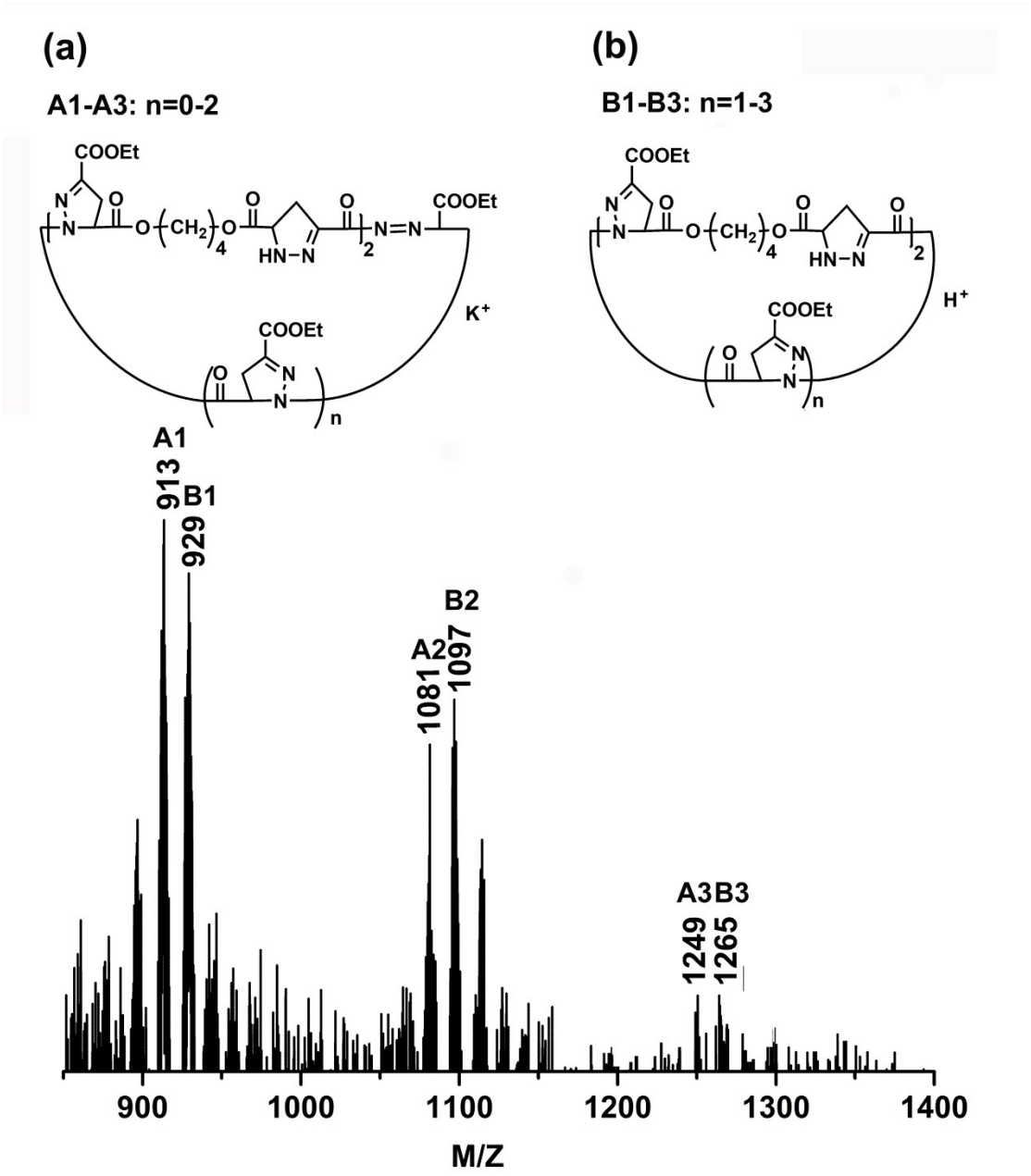

Figure S4. MALDI-TOF-MS spectra of the oligomer (run 11).

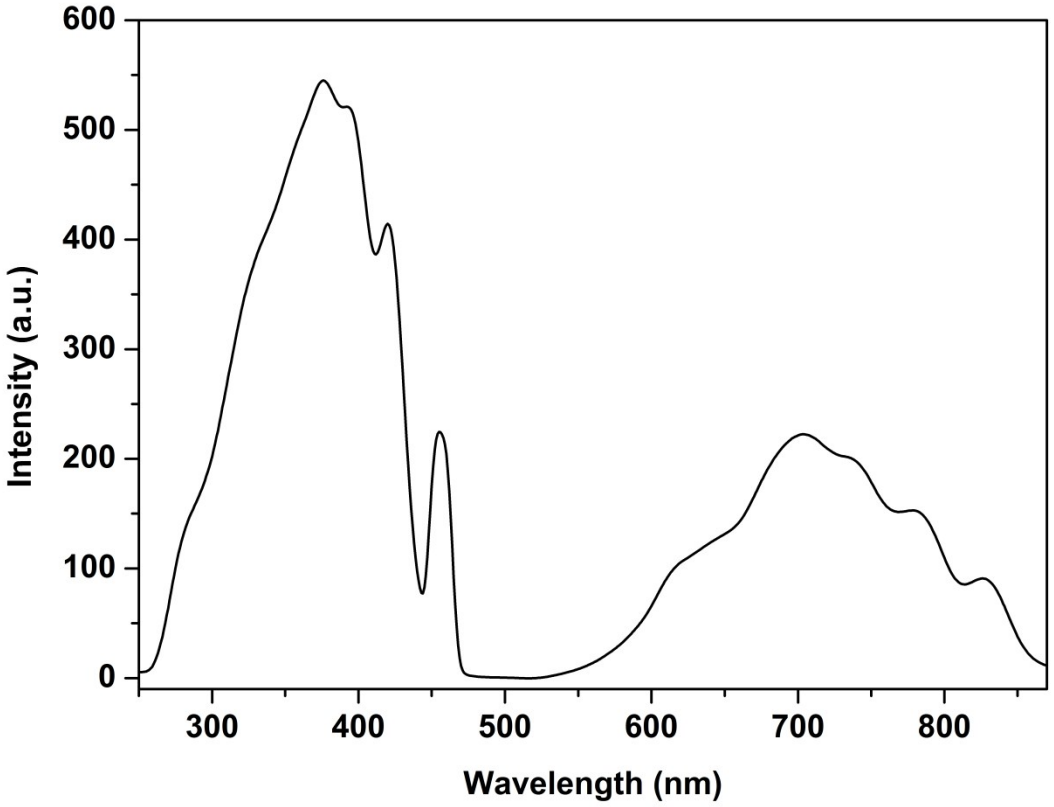

Figure S5. The excitation spectra of oligomer (run 11).

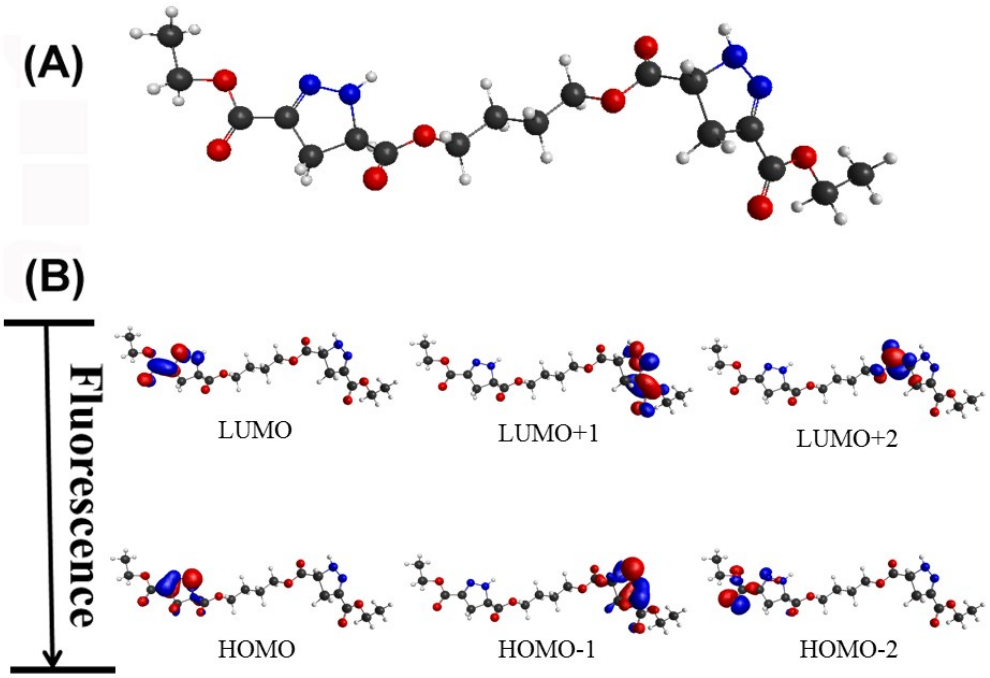

Figure S6. (a) The optimized geometry and (b) molecular orbitals of the BBP.

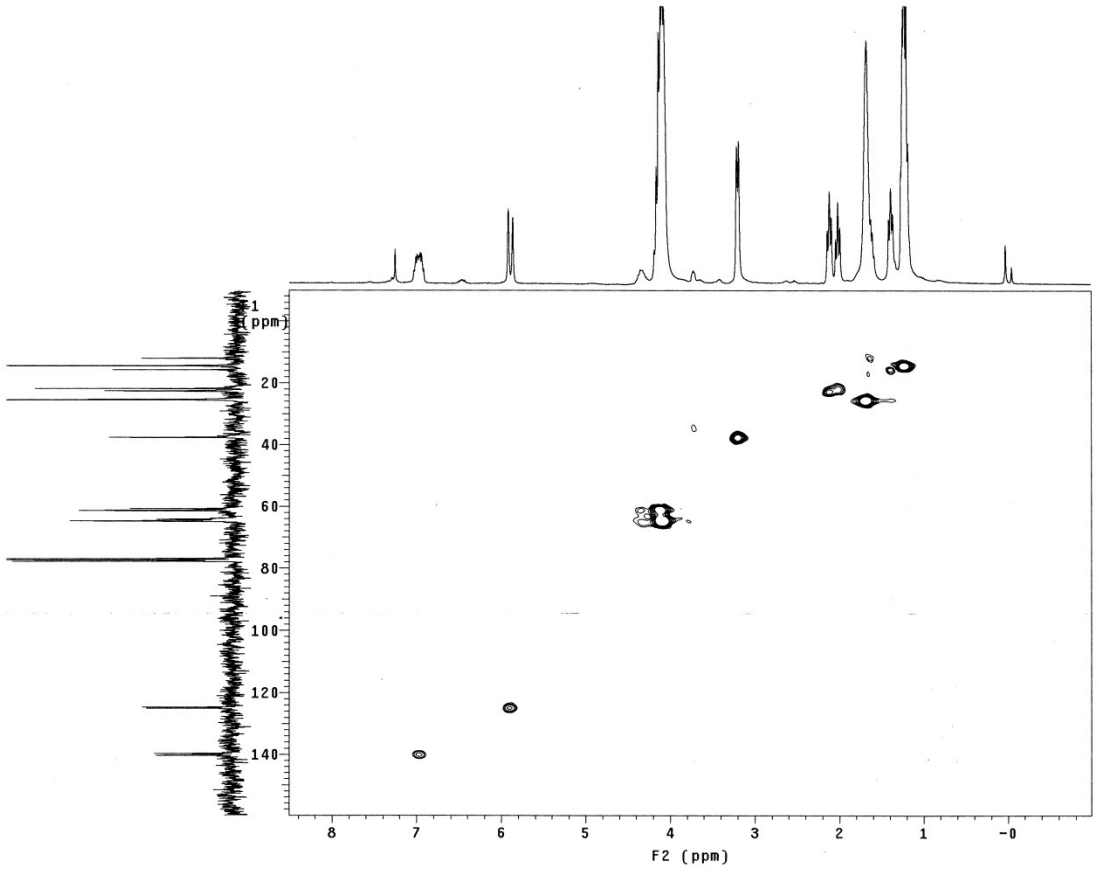

Figure S7. HSQC spectrum of the oligomer (run 11).

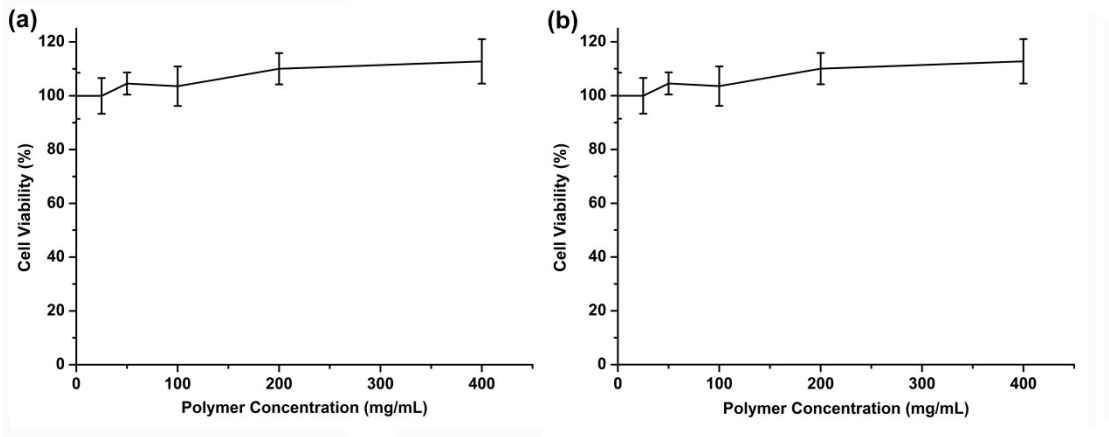

Figure S8. Cytotoxicity of the oligomer (run 11) in Cos7 cells (a) and Hela cells (b).

Cytotoxicity Assay. Cell viability was determined by using a standard 3-(4, 5-dimethyl-2-thiazolyl)-2, 5-diphenyl-2-H-tetrazolium bromide (MTT) assay. Cells (Cos7 and HeLa cells) were seeded in 96-well plates at a concentration of 5×10^3 cells/well in a final volume of 200 µL and incubated for 24 h. The cells were then incubated with oligomers (run 11) dissolved in complete cell culture medium at final concentrations of 0, 25, 50, 100, 200 and 400 µg/mL. After 48 h incubation, 20 µL of MTT (5 mg/mL, Sigma) solution was added to each well and incubated for 4 h at 37 °C with 5% CO_2. Te supernatant was then removed, and the cells treated with 200 µL of dimethyl sulfoxide (DMSO, Sinopharm, China), followed by gently shaking. The

plates were analyzed at a wavelength of 570 nm on a microplate reader (TECAN, SPARK 10M, Austria). The data was presented as cell viability (%) = Experimental group/Negative control group × 100%.