Supporting Information for

**TPZ, a bright centrosymmetric two photon scaffold for bioimaging**

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General Methods

The THF for reaction was dried over a Na/benzophenone still. CH$_2$Cl$_2$ was driver over CaH$_2$. Solvents for chromatography were of reagent grade. All chemicals of analytical grades were purchased and used without further treatment. The $^1$H-NMR and $^{13}$C-NMR spectra were acquired with a Bruker AV-400 spectrometer. Chemicals shifts were referenced to the residue solvent peaks and listed in unit of ppm. ESI-HRMS and EI-HRMS spectra were acquired on a TOF mass spectrometer and a Micromass GCT spectrometer respectively.

Experimental

Spectroscopic methods. UV-Vis absorption spectra were acquired over a SHIMADZU UV-2600 spectrophotometer. Fluorescence spectra were collected on a PTI-QM4 steady-state fluorimeter, equipped with a 75 W Xeon arc lamp and a model 810 type PMT. Voltage of the PMT was set to 950 V. The excitation/emission slits were set to 2 nm. All spectra were collected with a 1-cm quartz cuvette (3.4 mL) and uncorrected.

The extinction coefficients were calculated with the Beer-Lambert law with absorption spectra of dilute solutions of each compound (O.D. < 0.05). The absolute fluorescence quantum yield of TPZ1 was measured as 0.5 in DMSO using a Hamamatsu C9920-01 integrating sphere system. Fluorescence quantum yield of TPZ2 was calculated following the literature procedures with TPZ1 as the reference.

Measurement of two-photon absorption cross-section ($\delta$). Two-photon excitation fluorescence (TREF) spectra were collected using a femtosecond laser pulse and Ti:sapphire system (680-1080 nm, 80 MHz, 140 fs, Chameleon II) as the light source. All measurements were at room temperature without purging oxygen.

Two-photon absorption cross-sections were calculated with a two-photon induced fluorescence technique. The two-photon absorption cross sections ($\delta$) are determined by comparing their TPEF to that of fluorescein in different solvents (equation 1):

$$
\delta = \frac{\delta_{\text{ref}} F_{\text{ref}} \Phi_{\text{ref}} c_{\text{ref}} n_{\text{ref}}}{\delta_{\text{prod}} F \Phi c n}
$$

(1)

The subscript ref. stands for the reference molecule. $\delta$ is the TPA cross-section value, $c$ is the concentration of the solution, $n$ is the refractive index of the solution (because of the low concentrations of the solutions, the refractive indices of the solutions were replaced with those of the solvents), $F$ is the TREF integral intensities of the solution emitted at the exciting wavelength, and $\Phi$ is the fluorescence quantum yield. The $\delta_{\text{ref}}$ value of reference was taken from the literature.$^1$
Cytotoxicity assays. The MTT assay was performed to test the cytotoxic effect of the dye in cells. Mcf-7 cells were passed and plated to ca. 70% confluence in 96-well plates 24 h before treatment. Prior to TPZ1-2 treatment, DMEM (Dulbecco’s Modified Eagle Medium) with 10% FCS (Fetal Calf Serum) was removed and replaced with fresh DMEM, and aliquots of TPZ1-2 stock solutions (1 mM DMSO) were added to obtain final concentrations of 0, 5, 10, 15, 20, and 25 μM respectively. The treated cells were incubated for 24 h at 37 °C under 5% CO₂. Subsequently, cells were treated with 5 mg mL⁻¹ MTT (40 μL per well) and incubated for an additional 4 h (37 °C, 5% CO₂). Then the cells were dissolved in DMSO (150 μL per well), and the absorbance at 570 nm was recorded. The cell viability (%) was calculated according to the following equation:

\[
\text{Cell viability} \% = \frac{OD_{570} \text{ (sample)}}{OD_{570} \text{ (control)}} \times 100
\]

Where \(OD_{570} \text{ (sample)}\) represents the optical density of the wells treated with various concentrations of TPZ1-2 and \(OD_{570} \text{ (control)}\) represents that of the wells treated with DMEM containing 10% FCS. The percent of cell survival values is relative to untreated control cells.²
**Cell culture.** For two-photon bio-imaging, Mcf-7 cells were cultured in DMEM supplemented with 10% FCS, penicillin (100 µg mL⁻¹) and streptomycin (100 µg mL⁻¹) at 37 °C in a humidified atmosphere with 5% CO₂ and 95% air. Cells were cultured and stained with TPZ1-2 (10 µM) within 30 min and washed with PBS buffer. Cell imaging was carried out on a confocal microscope (Zeiss LSM 710 Meta NLO). Two-photon fluorescence microscopy images of labeled cells were obtained by exciting the probe with a mode-locked titanium-sapphire laser source set at 850 or 920 nm wavelength for TPZ1-2, respectively.

**Preparation of fresh mouse liver slices and two-photon fluorescence imaging.** For two-photon bio-imaging, slices were prepared from the liver of a 7-day-old mouse. Slices were cut to 180 µm thickness by using a vibrating-blade microtome in 10 mM PBS buffer (pH = 7.4). Slices were incubated with TPZ1-2 (10 µM) in PBS buffer bubbled with 95% air and 5% CO₂ for 1 h at 37 °C. Then, slices were washed three times with PBS buffer, and transferred to glass-bottomed dishes. Mouse liver slice imaging was carried out on a confocal microscope (Zeiss LSM 710 Meta NLO). Two-photon fluorescence microscopy images of fresh mouse liver slices were obtained by exciting the probe with a mode-locked titanium-sapphire laser source set at 850 or 920 nm wavelength for TPZ1-2, respectively.

**Preparation of zebrafish and two-photon fluorescence imaging.** For two-photon bio-imaging in vivo, 5-day-old zebrafishes were prepared. Zebrafishes were fed with TPZ1-2 (10 µM) in PBS buffer at 28 ºC for 1 h. All the fishes were terminally anaesthetized using MS222, and images were carried out on a confocal microscope (Zeiss LSM 710 Meta NLO). Two-photon fluorescence microscopy images of fresh mouse liver slices were obtained by exciting the probe with a mode-locked titanium-sapphire laser source set at 850 or 920 nm wavelength for TPZ1-2, respectively.

**Animals.** All procedures involving animals were approved by and conformed to the guidelines of the Anhui University Animal Care Committee, School of life science. We have taken great efforts to reduce the number of animals used in these studies and also taken effort to reduce animal suffering from pain and discomfort.
Synthetic scheme, procedures and characterizations.

2-bromo-4-fluorobenzaldehyde (100 g, 493 mmol), glycol (61.2 g, 986 mmol) and catalytic mount of p-toluenesulfonic acid were dissolved in 300 mL toluene, then heated to reflux with a Dean-Stark apparatus. After the reaction was completed, the toluene was removed and treated with saturated sodium bicarbonate solution then extracted with DCM (30 mL x 3). The organic solvent was removed by reduce pressure, then the residue was purified by reduced pressure (100 Pa, 85°C) distillation to give the oil product. \( \text{H-NMR (400 MHz, CDCl}_3 \) \( \delta \) 7.56-7.52 (m, 1H), 7.29-7.26 (m, 1H), 7.04-6.98 (m, 4H), 6.00 (s, 1H), 4.07-3.96 (m, 4H); \( \text{F-NMR (376 MHz, CDCl}_3 \) \( \delta \) -110.40 (t, \( J = 11.28 \text{ Hz} \)); \( \text{C-NMR (101 MHz, CDCl}_3 \) \( \delta \) 163.8, 161.4, 132.9, 129.3, 129.2, 123.1, 123.0, 120.2, 119.9, 114.6, 114.4, 102.0, 65.4; HRMS (EI) \( m/z \) Calcd for C\(_{19}\)H\(_8\)BrFO\(_2\) [M]+, 247.9671; Found, 247.9671.

8.2 mL n-BuLi (2.5 M, 1 eq.) was added to the 30 mL anhydrous THF solution of compound 3-8 at -78°C and kept reacting for 15 minutes then 2 mL DMF (21.2 mmol, 1.1eq.) was added with a syringe. Warmed to room temperature and extracted with DCM after treated with saturated ammonium chloride followed by column chromatography (petroleum ether / ethyl acetate 100 / 10, v/v) to give the oil product. \( \text{H-NMR (400 MHz, CDCl}_3 \) \( \delta \) 10.40 (d, \( J = 2.44 \text{ Hz} \), 1H), 7.71 (q, \( J = 8.56 \text{ Hz} \), 1H), 7.62 (dd, \( J = 8.80 \text{ Hz} \), 2.72Hz, 1H), 7.31-7.26 (m, 1H), 6.30 (s, 1H), 4.15-4.09 (m, 4H); \( \text{F-NMR (376 MHz, CDCl}_3 \) \( \delta \) -111.10; \( \text{C-NMR (101 MHz, CDCl}_3 \) \( \delta \) 190.1, 163.5, 135.5, 129.5, 120.4, 120.0, 115.8, 100.9, 65.3; HRMS (EI) \( m/z \) Calcd for C\(_{10}\)H\(_9\)FO\(_3\) [M]+, 196.0536, Found, 196.0537.

compound 3 (3 g, 14.41 mmol, 1 eq.) and 1, 4- cyclohexanedione monoethylene acetal 4 (1.13 g, 7.2 mmol, 0.5 eq) were dissolved in 10 mL ethanol then 40% NaOH solution was slowly added until the solid precipitated. Kept reacting for half hour then filtered and collected the residue and recrystallized to give the product in 92% yield. Yellow solid, 3.2 g. \( \text{H-NMR (400 MHz, CDCl}_3 \) \( \delta \) 8.06 (s, 2H), 7.60 (t, \( J = 8.40 \text{ Hz} \), 2H), 7.06 (td, \( J = 8.30 \text{ Hz} \), 2.04 Hz, 2H), 6.93 (td, \( J = 9.32 \text{ Hz} \), 1.84 Hz, 2H), 5.84 (s, 2H), 4.16-4.12 (m, 4H), 4.02-3.99 (m, 4H), 3.87 (s, 4H), 2.98 (s, 4H); \( \text{F-NMR (376 MHz, CDCl}_3 \) \( \delta \) -111.10; \( \text{C-NMR (101 MHz, CDCl}_3 \) \( \delta \) 190.1, 163.5, 135.5, 129.5, 120.4, 120.0, 115.8, 100.9, 65.3; HRMS (EI) \( m/z \) Calcd for C\(_{10}\)H\(_9\)FO\(_3\) [M]+, 196.0536, Found, 196.0537.
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CDCl₃ δ -112.13 (t, J = 15.04 Hz); ¹³C-NMR (101 MHz, CDCl₃) δ 187.3, 162.7 (J = 252 Hz), 137.2, 137.1, 136.5, 134.6, 132.4, 132.3, 129.1, 129.0, 115.8, 115.6, 115.2, 115.0, 106.6, 101.4, 65.4, 64.7, 37.1. HRMS (ESI) m/z, Calcd for C₂₈H₂₆F₂O₇ [M+H]⁺, 513.1719, Found, 513.1724.

![Diagram](image)

F⁻FOO

O

OMe

M

O

Na

DMSO

MeOH

82%

80°C

Compound 7 (500 mg, 1.01 mmol) and 1 g sodium methoxide were dissolved in 100 mL methanol. To the solution 10 mL DMSO was added. Then the mixture was heated to 80 °C for 24 h. After the reaction was completed, methanol was removed and the concentrated solution was poured into 500 mL ice-water. Filtrated and collected the residue which was the desired product. 430 mg, yield 82%, yellow solid. ¹H-NMR (400 MHz, CDCl₃) δ 8.98 (s, 2H), 7.94 (d, J = 7.8 Hz, 2H), 7.41 (s, 2H), 7.30 (dd, J = 7.8 Hz, 2.4 H, 2H), 7.19 (t, J = 8.2 Hz, 2H), 7.12 (dd, J = 8.0 Hz, 2.4 Hz, 2H), 6.88 (d, J = 2.4 Hz, 2H), 6.78 (t, J = 8.4 Hz, 2H), 6.65 (d, J = 7.8 Hz, 2H), 3.82 (s, 6H); ¹³C-NMR (101 MHz, CDCl₃) δ 184.0, 159.8, 149.2, 147.8, 137.9, 131.2, 131.2, 130.1, 129.1, 128.4, 127.9, 127.3, 126.5, 123.7, 120.4, 116.6, 105.11, 7.35, 77.0, 76.7, 55.3, 46.1. HRMS (ESI) m/z Calcd for C₃₆H₃₂O₄ [M+Na]⁺, 543.1572; Found, 543.1571.

7.8 mL n-BuLi (2.5 M) was added to the 20 mL THF solution of diphenyl ether (3.4 g, 5.1 mmol) at -0 °C and kept reacting for 1 hour then the mixture was transferred to 30 mL THF solution of compound 5 (5 g, 9.8 mmol) and reacted for 1 hour further. Then treated with saturated ammonium chloride and extracted with DCM. Next, DCM was concentrated and 2 mL methanesulfonic acid was added then kept reacting for half hour. After the reaction was finished, the methanesulfonic acid was neutralized by saturated sodium bicarbonate followed by column chromatography (petroleum ether / ethyl acetate 100 / 5, v/v) to give the yellow solid product in 32% yield, 1.5 g. ¹H-NMR (400 MHz, CDCl₃) δ 9.05 (s, 2H), 8.05 (t, J = 7.18 Hz, 2H), 7.50 (s, 2H), 7.32-7.18 (m, 8H), 6.78 (t, J = 7.46 Hz, 2H), 6.60 (d, J = 7.84 Hz, 2H); ¹⁹F-NMR (376 MHz, CDCl₃) δ -109.17—109.24 (m); ¹³C-NMR (101 MHz, CDCl₃) δ 183.9, 162.3 (J = 250 Hz), 149.2, 147.9, 137.3, 137.2, 132.4, 132.3, 131.0, 130.9, 130.9, 128.9, 128.7, 128.5, 128.2, 127.6, 127.6, 123.8, 117.9, 117.7, 111.0, 110.8, 46.1. HRMS (ESI) m/z Calcd for C₃₄H₁₉F₂O₂ [M+H]⁺, 497.1357, Found, 497.1352.

Compound 7 (500 mg, 1.01 mmol) and 1 g sodium methoxide were dissolved in 100 mL methanol. To the solution 10 mL DMSO was added. Then the mixture was heated to 80 °C for 24 h. After the reaction was completed, methanol was removed and the concentrated solution was poured into 500 mL ice-water. Filtrated and collected the residue which was the desired product. 430 mg, yield 82%, yellow solid. ¹H-NMR (400 MHz, CDCl₃) δ 8.98 (s, 2H), 7.94 (d, J = 7.8 Hz, 2H), 7.41 (s, 2H), 7.30 (dd, J = 7.8 Hz, 2.4 H, 2H), 7.19 (t, J = 8.2 Hz, 2H), 7.12 (dd, J = 8.0 Hz, 2.4 Hz, 2H), 6.88 (d, J = 2.4 Hz, 2H), 6.78 (t, J = 8.4 Hz, 2H), 6.65 (d, J = 7.8 Hz, 2H), 3.82 (s, 6H); ¹³C-NMR (101 MHz, CDCl₃) δ 184.0, 159.8, 149.2, 147.8, 137.9, 131.2, 131.2, 130.1, 129.1, 128.4, 127.9, 127.3, 126.5, 123.7, 120.4, 116.6, 105.11, 7.35, 77.0, 76.7, 55.3, 46.1. HRMS (ESI) m/z Calcd for C₃₆H₃₂O₄ [M+Na]⁺, 543.1572; Found, 543.1571.
To the solution of 500 mg starting material 8 in 200 mL 1,2-dichloromethane, 1 mL boron tribromide was added at r.t. and the reaction was kept reacting for 3h before 30 mL water was added. Then extracted with DCM, dried with anhydrous sodium sulfate and followed by chromatography on silica gel (PE/DCM/EA 100/20/10, v/v/v) to get the product. Yellow solid, 400 mg, yield 85%. $^1$H-NMR (400 MHz, DMSO) δ 10.28 (s, 2H), 8.87 (s, 2H), 8.08 (d, $J = 9.04$ Hz, 2H), 7.35 (d, $J = 7.56$ Hz, 2H), 7.21 (d, $J = 10.24$Hz, 2H), 6.89 (s, 2H), 7.13 (dd, $J = 8.92$ Hz, 2.16Hz, 2H), 6.89 (d, $J = 1.76$ Hz, 2H), 6.82 (t, $J = 7.08$ Hz, 2H); 6.57 (dd, $J = 7.88$ Hz, 1.56Hz, 2H); $^{13}$C-NMR (101 MHz, DMSO) δ 182.47, 158.28, 148.50, 147.48, 137.69, 131.72, 130.71, 128.94, 128.67, 128.20, 128.15, 126.06, 125.33, 123.86, 120.37, 116.73, 107.91, 45.46.

To the solution of 200 mg starting material 9 in 100 mL anhydrous dichloromethane at ice-bath, 2.5 eq. triflic anhydride was added. Then 1 mL pyridine was slowly added and kept reacting for 1h before 100 mL water was introduced. Then extracted with DCM, dried with anhydrous sodium sulfate and followed by chromatography on silica gel (PE/DCM/EA 100/20/1, v/v/v) to get the product. White solid, 290 mg, yield 95%. $^1$H-NMR (400 MHz, CDCl$_3$) δ 9.11 (s, 2H), 8.15 (d, $J = 9.04$ Hz, 2H), 7.30 (s, 2H), 7.58 (s, 2H), 7.38 (d, $J = 9.08$ Hz, 2H), 7.34 (d, $J = 8.20$ Hz, 2H), 7.22 (d, $J = 7.40$ Hz, 2H), 6.81 (t, $J = 7.34$ Hz, 2H), 6.58 (d, $J = 7.80$ Hz, 2H); $^{19}$F-NMR (376 MHz, CDCl$_3$) δ -72.83. $^{13}$C-NMR (101 MHz, CDCl$_3$) δ 183.6, 149.2, 148.9, 148.5, 136.3, 132.7, 132.1, 130.8, 130.5, 129.0, 128.9, 128.6, 127.8, 124.1, 120.9, 119.3, 117.3, 46.3. HRMS (ESI)$^+$ m/z, Calcd for C$_{36}$H$_{18}$F$_6$O$_8$S$_2$ (M+H)$^+$: 757.0426, found: 757.0424.

Compound 10 (100 mg, 132.16 μmol), palladium acetate (1.2 mg, 6.5 μmol), cesium carbonate (86 mg, 264.3 μmol) and trimethylamine (100 mg, 1.32 mmol) were dissolved in 30 mL anhydrous 1,4-dioxane then heat to 100 °C for 8 h under argon protection. After the reaction was completed, cooled to r.t. and then 30 mL water was added and extracted with DCM followed by chromatography on silica gel
to get the product (PE/EA, 20:1). Yellow solid, 64 mg, yield 80%. $^1$H NMR (400 MHz, CDCl$_3$) $\delta$ 8.85 (s, 2H), 7.84 (d, $J$ = 9.2 Hz, 2H), 7.27 - 7.25 (m, 2H), 7.16 - 7.12 (m, 4H), 7.03 (dd, $J_1$ = 9.2 Hz, $J_2$ = 2.5 Hz, 2H), 6.77 - 6.70 (m, 4H), 6.52 (d, $J$ = 2.3 Hz, 2H), 3.38 (q, $J$ = 7.1 Hz, 8H), 1.14 (t, $J$ = 7.1 Hz, 12H);

$^{13}$C NMR (101 MHz, CDCl$_3$) $\delta$ 183.6, 149.1, 148.0, 147.6, 138.5, 131.4, 131.1, 129.8, 128.6, 128.4, 127.5, 124.9, 124.4, 123.6, 116.3, 103.7, 46.1, 44.4, 12.8; HRMS (ES$^+$) Calcd for [M+H]$^+$, 603.3012; Found, 603.3009.

The compound 7 (100mg, 201.41 $\mu$mol), dimethylamine (2 mL, 2.01 mmol, 1 M THF solution) and sodium carbonate (43mg, 402 $\mu$mol) were dissolved in 10 mL DMSO at r.t.. Kept reacting and monitored with TLC. After the reaction was finished, poured it into 300 mL water and kept standing for half hour then filtered and the residue was further purified with chromatography to get the product. Eluent PE/DCM/EA 100/25/2, v/v, yellow solid, 69 mg, yield 65%. $^1$H-NMR (400 MHz, CDCl$_3$) $\delta$ 9.03 (s, 1H), 8.90 (s, 1H), 8.03 (t, $J$ = 7.26 Hz, 1H), 7.88 (d, $J$ = 9.20 Hz, 1H), 7.46 (s, 1H), 7.28 (d, $J$ = 8.24 Hz, 2H), 7.24 (d, $J$ = 8.24 Hz, 2H), 7.21 (s, 1H), 7.17 (td, $J$ = 7.68 Hz, 1.32Hz, 2H), 7.12 (dd, $J$ = 9.20 Hz, 2.4 Hz 1H), 6.77 (td, $J$ = 7.04 Hz, 0.88 Hz, 2H), 6.65 (dd, $J$ = 7.88 Hz, 1.16 Hz, 2H), 6.57 (d, $J$ = 1.96 Hz, 1H), 3.02 (s, 6H); $^{19}$F-NMR (376 MHz, CDCl$_3$) $\delta$ -110.06- -110.13 (m); $^{13}$C NMR (101 MHz, CDCl$_3$) $\delta$ 183.7, 150.3, 149.2, 148.4, 147.5, 138.5, 132.3, 132.2, 131.1, 130.9, 130.8, 129.1, 128.9, 128.7, 128.5, 128.1, 127.9, 124.9, 124.8, 123.7, 117.6, 117.3, 116.9, 116.7, 110.9, 110.7, 104.7, 46.1, 40.3. HRMS (ESI)$^+$, m/z, Calcd for C$_{36}$H$_{24}$FNO$_2$ (M+H)$^+$: 522.1869, found: 522.1871.

Supporting References.
Fig S1  The $^1$H-NMR of compound 2 in CDCl$_3$. 
**Fig S2**  The $^{13}$C-NMR of compound 2 in CDCl$_3$.

**Fig S3**  The $^{19}$F-NMR of compound 2 in CDCl$_3$. 

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Fig S4  The HR-MS of compound 2.
Fig S5  The $^1$H-NMR of compound 3 in CDCl$_3$. 
Fig S6  The $^{13}$C-NMR of compound 3 in CDCl$_3$.

Fig S7  The $^{19}$F-NMR of compound 3 in CDCl$_3$. 
Fig S8  The HR-MS of compound 3.

Formula: C_{10}H_{17}O

m/z: 196, 0531
Fig S9: The $^1$H-NMR of compound 5 in CDCl$_3$. 
Fig S10  The $^{13}$C-NMR of compound 5 in CDCl$_3$.

Fig S11  The $^{19}$F-NMR of compound 5 in CDCl$_3$. 
Fig S12  The HR-MS of compound 5.
Fig S13  The $^1$H-NMR of compound 7 in CDCl$_3$. 
Fig S14  The $^{13}$C-NMR of compound 7 in CDCl$_3$.

Fig S15  The $^{19}$F-NMR of compound 7 in CDCl$_3$.
Fig S16  The HR-MS of compound 7.
Fig S17  The $^1$H-NMR of compound 8 in CDCl$_3$. 
Fig S18  The $^{13}$C-NMR of compound 8 in CDCl$_3$. 
Fig S19  The HR-MS of compound 8.
Fig S20  The $^1$H-NMR of compound 9 in DMSO.
Fig S21 The $^{13}$C-NMR of compound 9 in DMSO.
Fig S22  The $^1$H-NMR of compound 10 in CDCl$_3$. 
Fig S23  The $^{13}$C-NMR of compound 10 in CDCl$_3$.

Fig S24  The $^{19}$F-NMR of compound 10 in CDCl$_3$. 
Fig S25  The HR-MS of compound 10.
Fig S26  The $^1$H-NMR of compound TPZ 2 in CDCl$_3$. 
Fig S27: The $^{13}$C-NMR of compound TPZ 2 in CDCl$_3$. 
Fig S28  The HR-MS of compound TPZ 2.
Fig S29  The $^1$H-NMR of compound TPZ1 in CDCl$_3$. 
Fig S30  The $^{13}$C-NMR of compound TPZ1 in CDCl$_3$.

Fig S31  The $^{19}$F-NMR of compound TPZ1 in CDCl$_3$. 
Fig S32: The HR-MS of compound TPZ1.

Formula: C_{46}H_{36}F_{7}NO_{7}

M+H^+: 522.1869
Fig S33  The X-ray single crystal of compound 7.
Figure S34. The transient absorption spectra of TPZ2 in DMSO.

Figure S35. (a) femtosecond transient absorption kinetics, (b) TCSPC and (c) excited state relaxation mechanism for TPZ2.

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<th>Tau2 (ps)</th>
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<td>2659</td>
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<tr>
<td>720 nm</td>
<td>2.2434 ± 0.224</td>
<td>12.748 ± 1.040</td>
<td>2343.3 ± 55.2</td>
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Table S1. The global fitting results of the excited state kinetics of TPZ2.