

## 支撑材料

# 一种 1,8-萘酰亚胺衍生物检测半胱氨酸荧光探针的合成及其在秀丽隐杆线虫中成像中的运用

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(云南师范大学化学化工学院 昆明 650500)

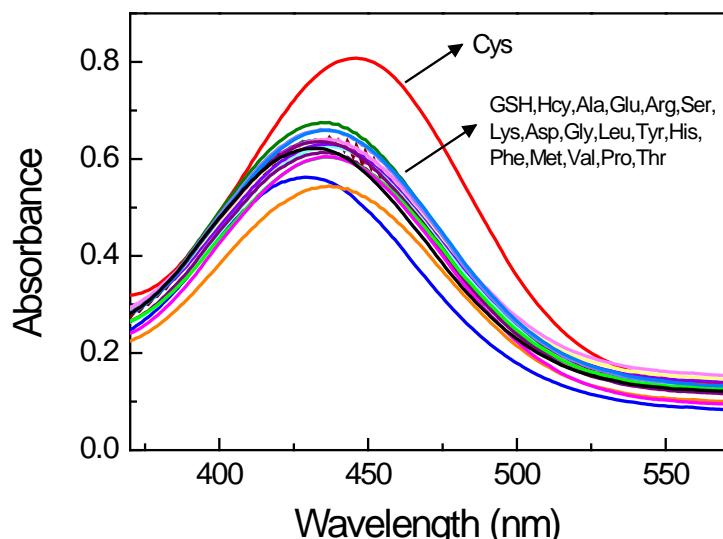


图 S1 向探针 TPFC-Acryloyl (20 μmol/L) 中加入 400 μmol/L 不同测试物质 (Cys, Hcy, GSH, Ala, Glu, Arg, Ser, Lys, Asp, Gly, Leu, Tyr, His, Phe, Met, Val, Pro, Thr) 的紫外吸收光谱图

Fig.S1 UV absorption spectra of probe TPFC-Acryloyl (20  $\mu\text{mol/L}$ ) upon addition of 400  $\mu\text{mol/L}$  of different amino acids ( Cys, Hcy, GSH, Ala, Glu, Arg, Ser, Lys, Asp, Gly, Leu, Tyr, His, Phe, Met, Val, Pro, Thr )

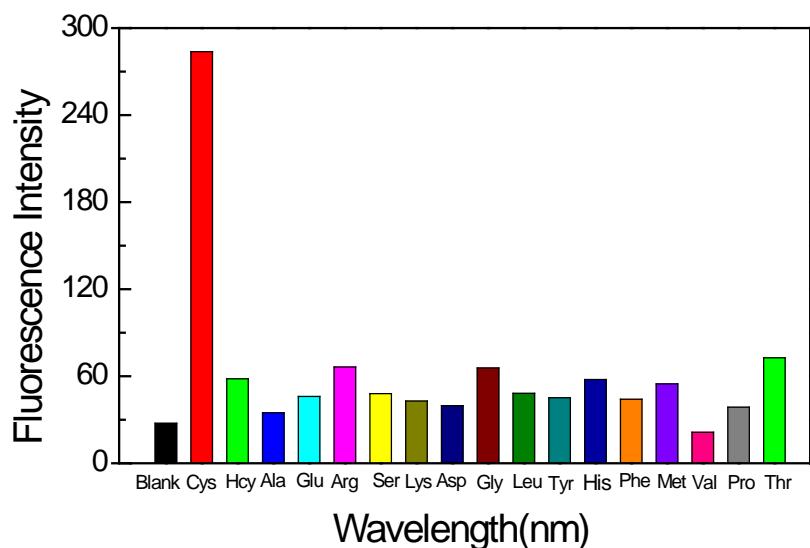
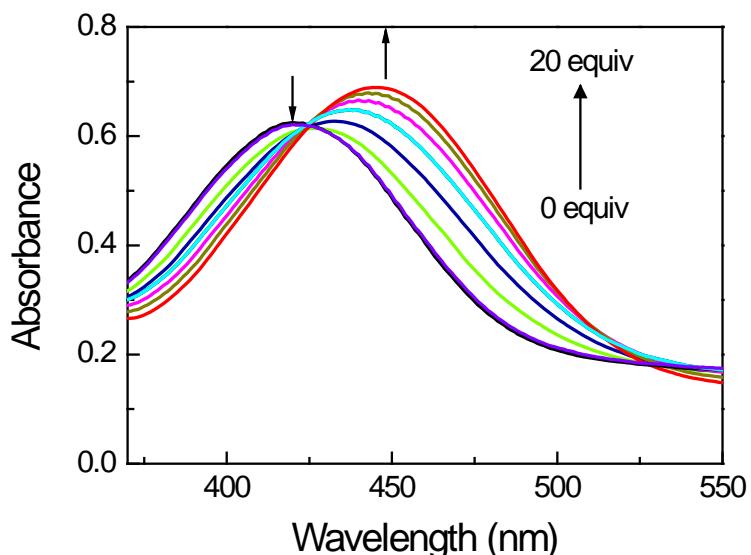


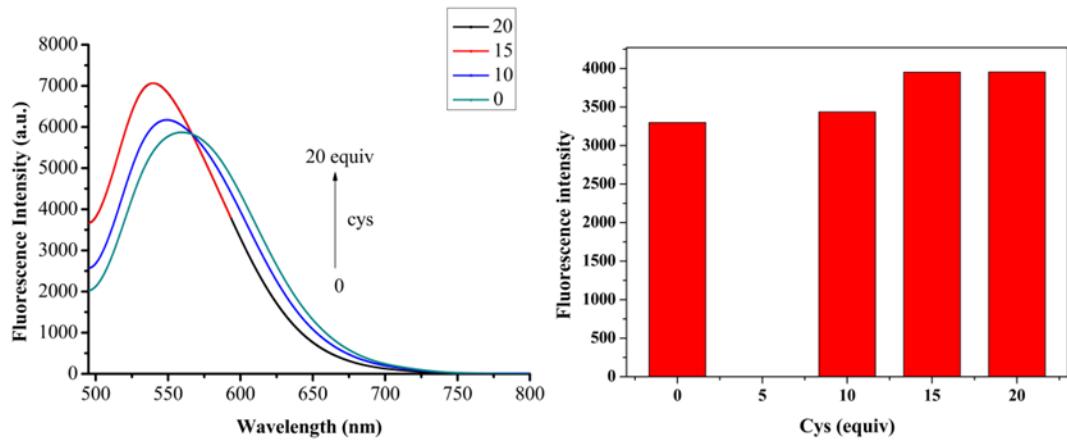
图 S2 探针 TPFC-Acryloyl 与不同物质反应后的荧光强度柱状图

Fig.S2 Histogram of fluorescence intensity after TPFC-Acryloyl reacted with different substances



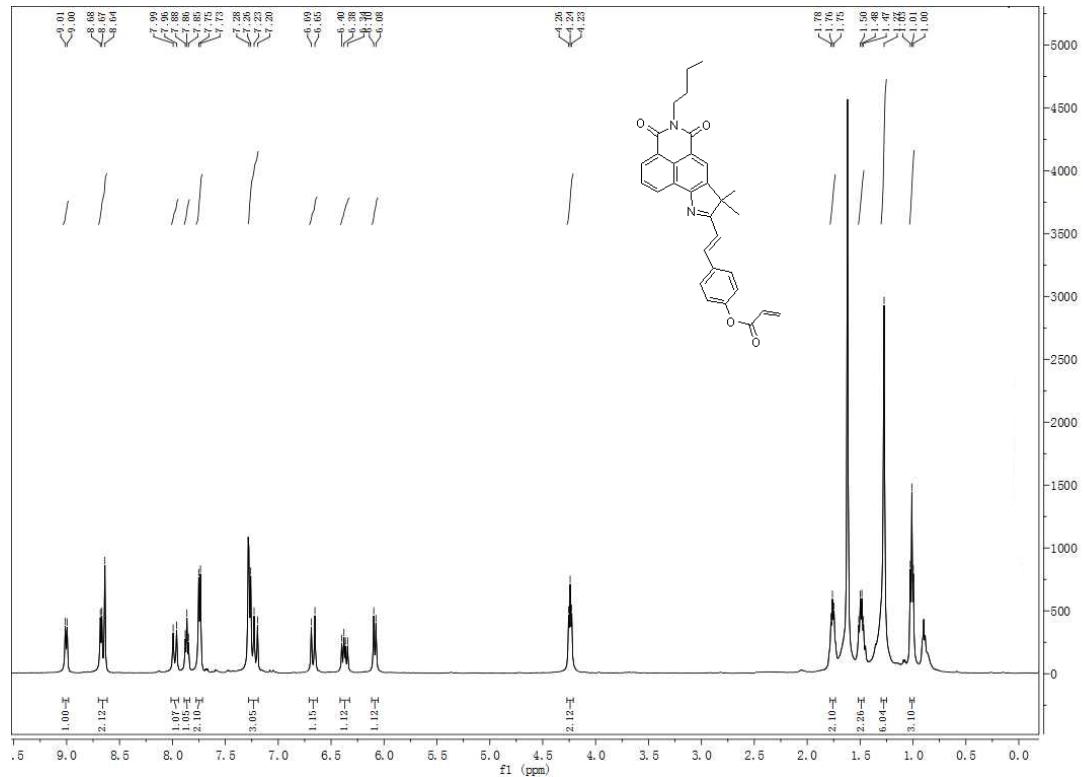
图S3 探针TPFC-Acryloyl中加入不同倍数的Cys紫外光谱变化图

Fig.S3 The UV absorption changes of TPFC-Acryloyl after adding different concentration of Cys



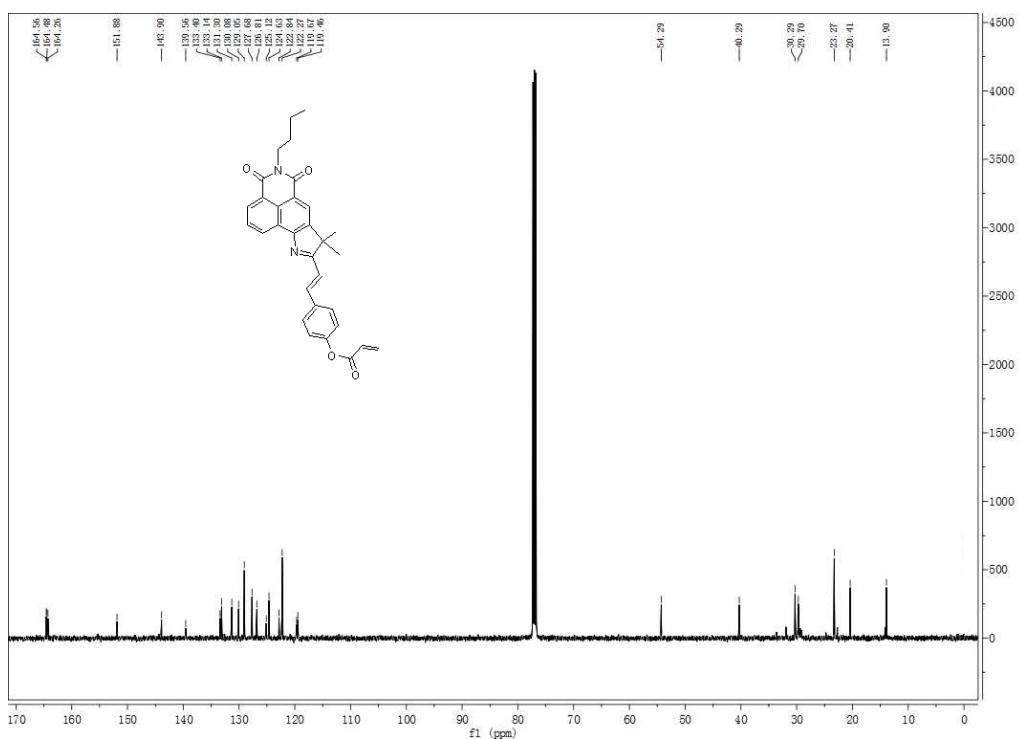
图S4 探针TPFC-Acryloyl中加入不同量的Cys后相对荧光强度变化图

Fig.S4 The relative fluorescence intensity changes of TPFC-Acryloyl after adding different equivalent of Cys



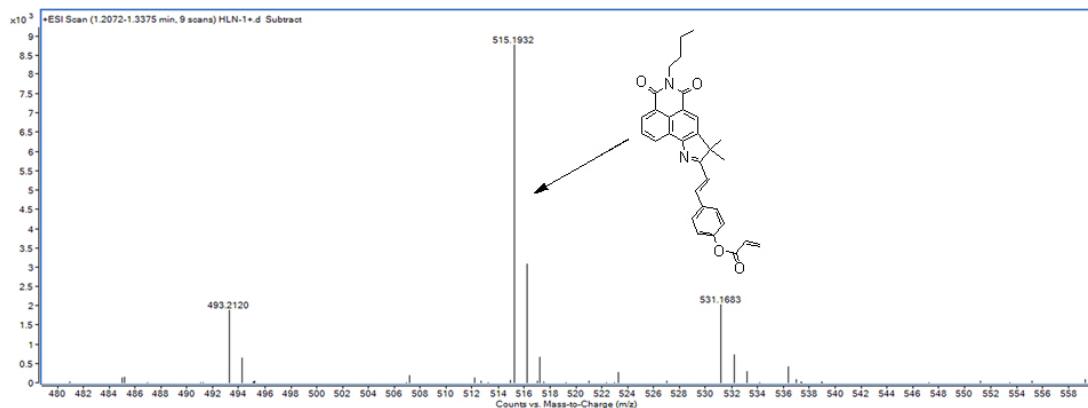
图S5 探针TPFC-Acryloyl在DMSO中的<sup>1</sup>H NMR谱

Fig.S5 <sup>1</sup>H NMR spectrum of probe TPFC-Acryloyl in DMSO



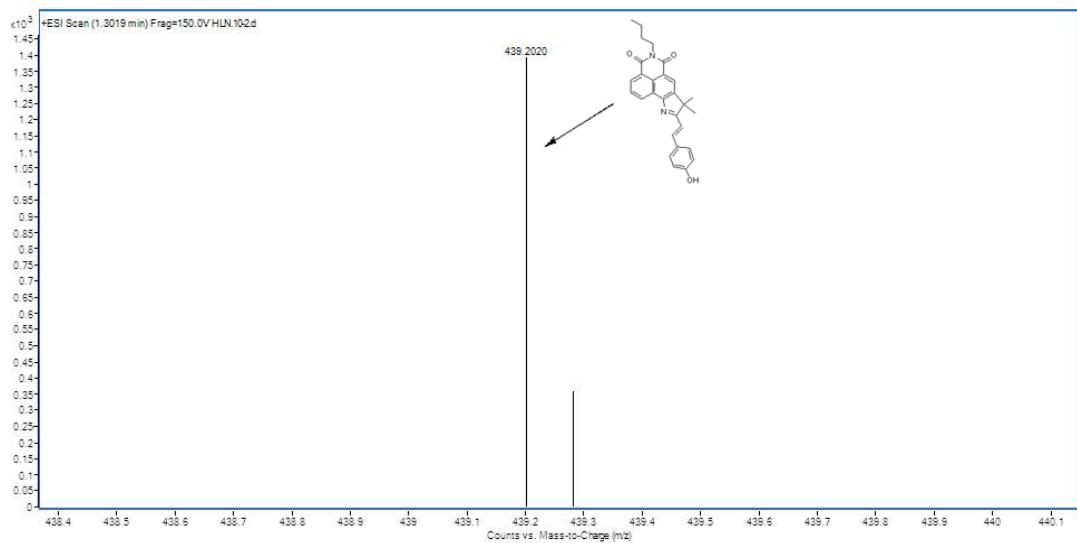
图S6 探针TPFC-Acryloyl在DMSO中的<sup>13</sup>C NMR谱

Fig.S6 <sup>13</sup>C NMR spectrum of probe TPFC-Acryloyl in DMSO



图S7 探针TPFC-Acryloyl的HRMS谱

Fig.S7 HRMS spectrum of probe TPFC-Acryloyl



图S8 探针TPFC-Acryloyl与Cys反应后的HRMS谱图

Fig.S8 HRMS spectrum of the reaction of probe TPFC-Acryloyl with Cys