

Supporting Information

Smartphone-adaptable Fluorescent Sensing Tag for Non-Contact and Visual Monitoring the Freshness of Fish

Lirong Jiang,^a Huan Ye,^a Dini Ma,^a João Rodrigues,^b Ruilong Sheng,^{b,*} Douyong Min^{a,*}

^a School of Light Industry and Food Engineering, Guangxi University, Nanning 530004, P.R. China.

E-mail: mindouyong@gxu.edu.cn (D. Min).

^b CQM-Centro de Química da Madeira, Universidade da Madeira, Campus da Penteada, 9000-390 Funchal, Madeira, Portugal. E-mail: ruilong.sheng@staff.uma.pt (R. Sheng).

Table S1. Determination results of cadaverine from the spoilage of fish at 0 °C and 25 °C

Figure S1. ¹H NMR spectra of PTCN in DMSO-*d*₆ (500 MHz)

Figure S2. ¹³C NMR spectra of PTCN in DMSO-*d*₆ (125 MHz)

Figure S3. HR-MS (ESI) spectra of PTCN

Figure S4. HR-MS (ESI) spectra of the product from the reaction of PTCN with cadaverine

Table 1. Determination resultsof cadaverine from the spoilage of fish at 0 °C and 25 °C (n =3).

samples	Stored time (h)	Found (mg/100g)		RSD (%)	
		0 °C	25 °C	0 °C	25 °C
Fish	0	11.46 ± 0.23	11.33 ± 0.40	1.97	3.50
	3	17.63 ± 0.50	19.48 ± 0.57	2.81	2.90
	6	21.23 ± 0.32	30.97 ± 0.35	1.50	1.14
	12	26.61 ± 0.43	88.45 ± 0.63	1.62	0.71
	24	51.63 ± 0.57	130.20 ± 0.77	1.10	0.59

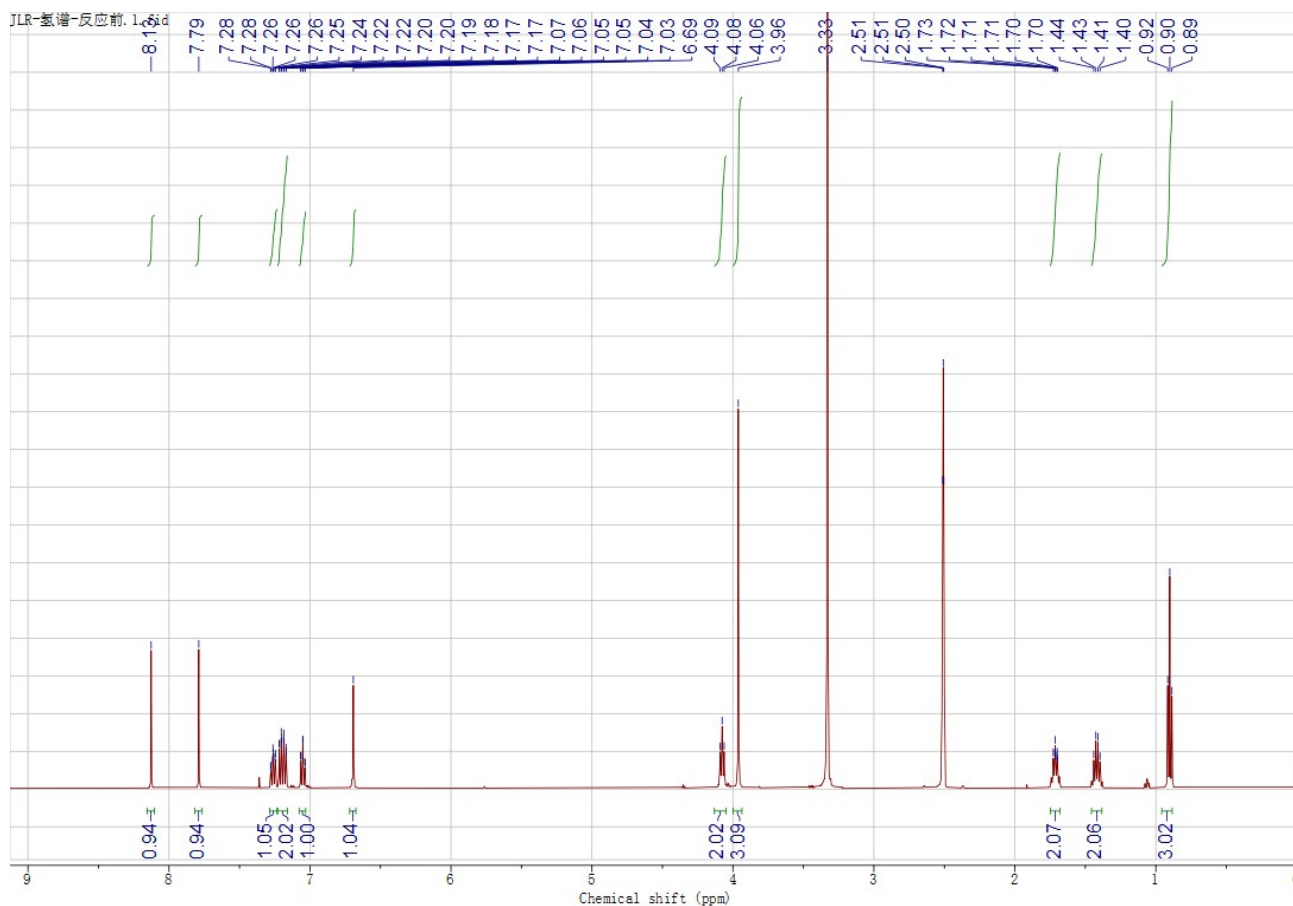


Figure S1. ¹H NMR spectra of PTCN in DMSO-*d*₆ (500 MHz)

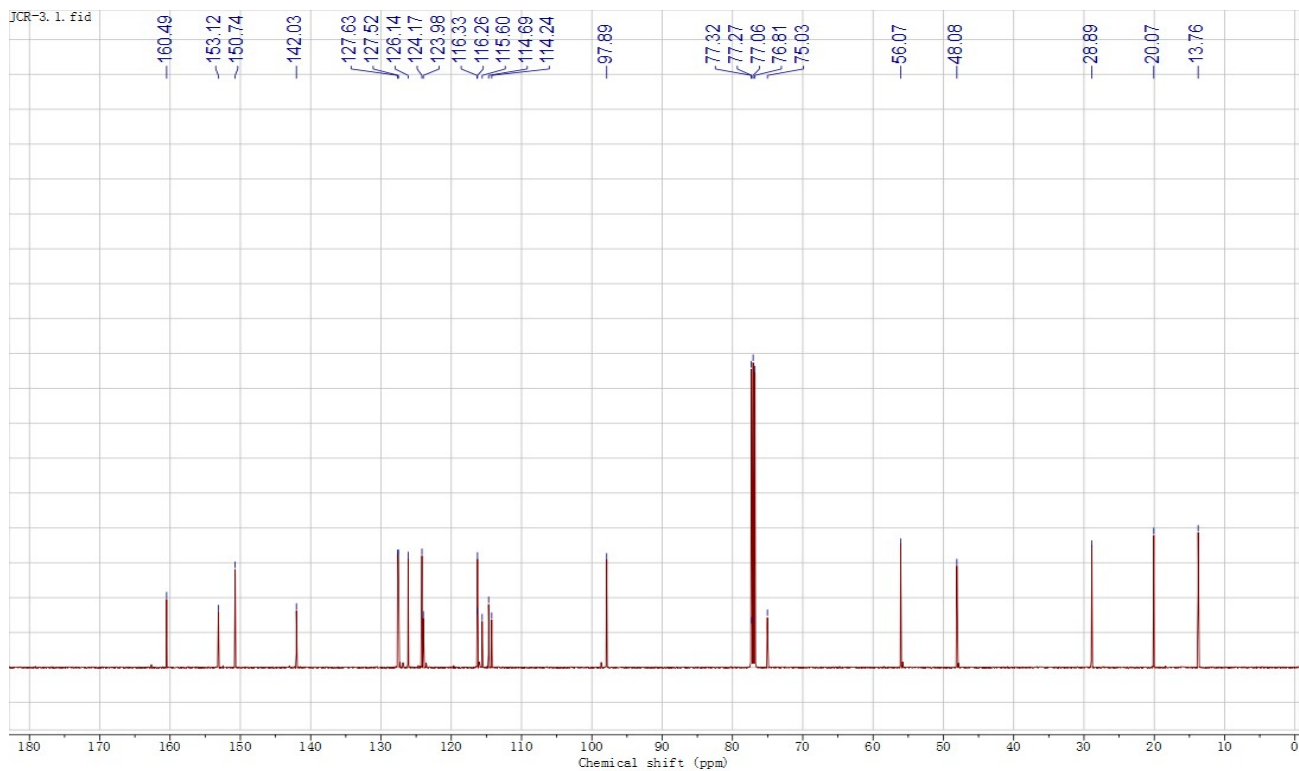


Figure S2. ^{13}C NMR spectra of PTCN in $\text{DMSO-}d_6$ (125 MHz)

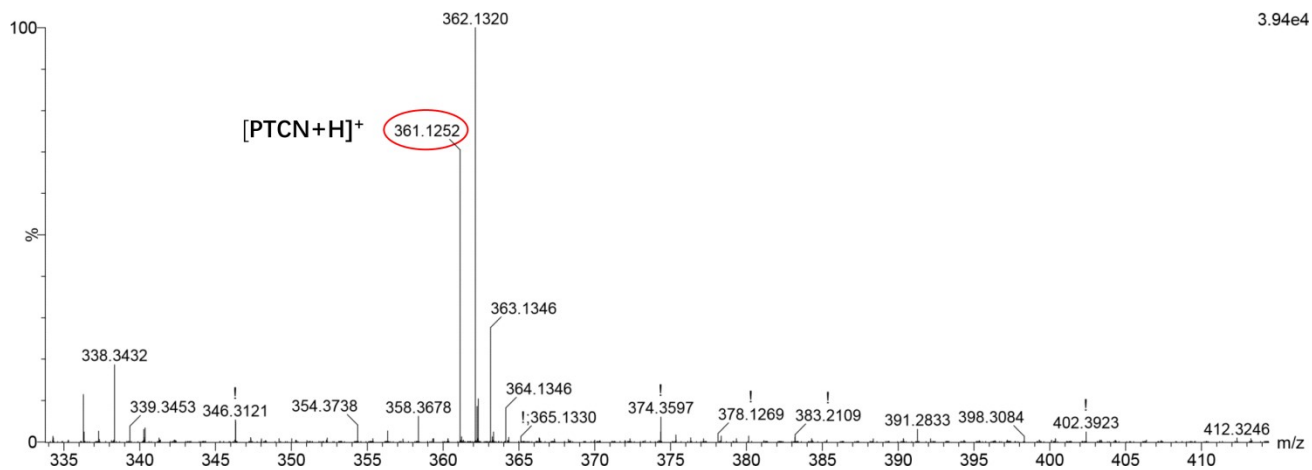


Figure S3. HR-MS (ESI) spectra of PTCN.

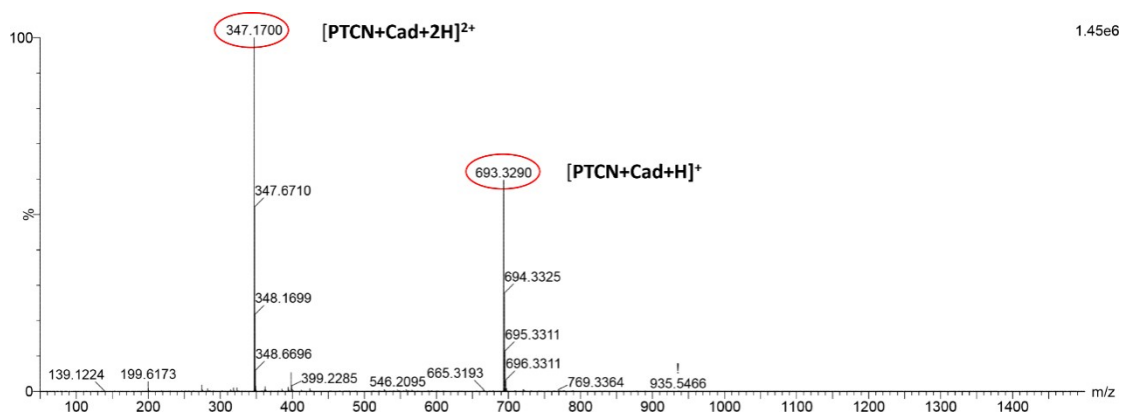


Figure S4. HR-MS (ESI) spectra of the product from the reaction of **PTCN** with cadaverine (Cad).