Electronic Supplementary Material (ESI) for Analyst.

Fabrication "Turn-On" Type Enantioselective Fluorescence Sensor via Modified Achiral MOF: Applied for Synchronous Detecting Phenylalaninol Enantiomers

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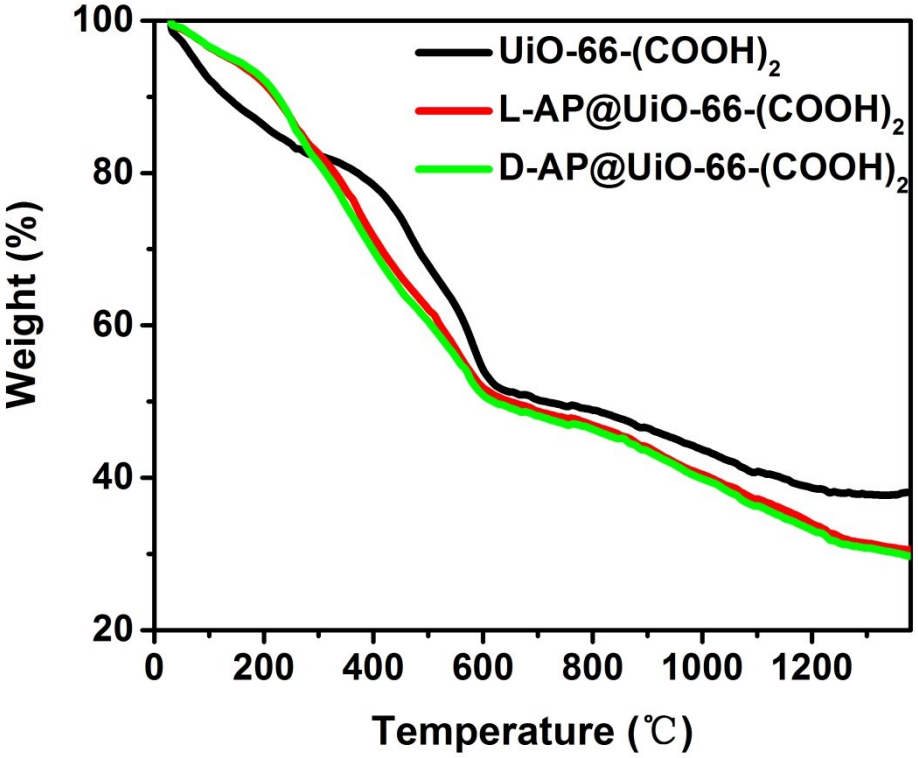

Figure S1 TGA curves of UiO-66-$(COOH)_2$, **S-1** and **R-1**

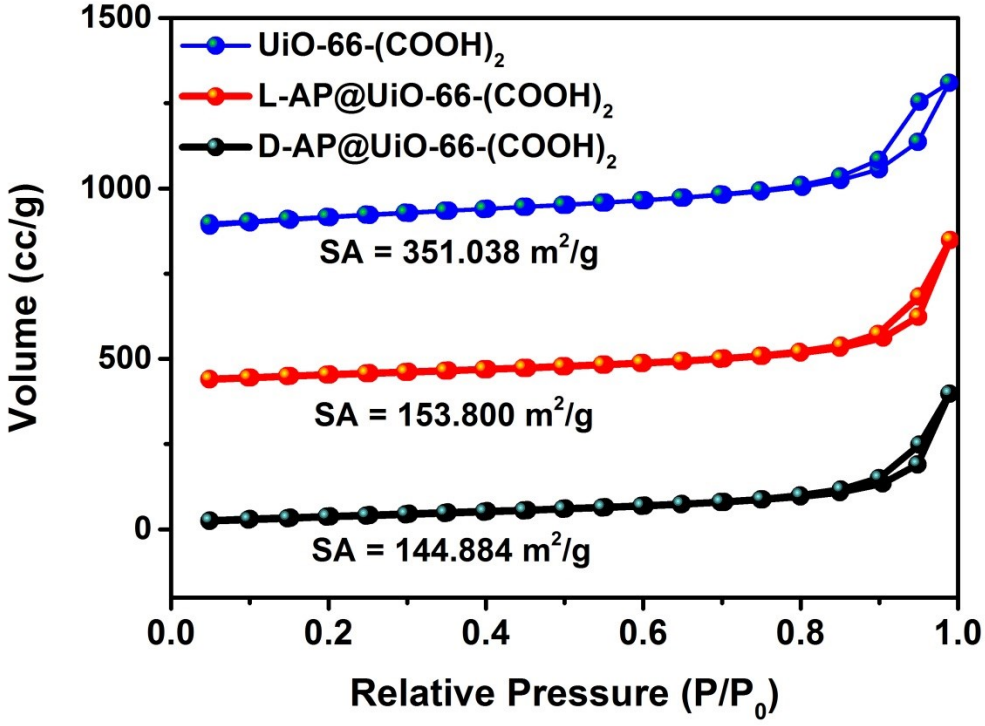

Figure S2 N_2 adsorption and desorption isotherms of UiO-66-$(COOH)_2$, **S-1** and **R-1**

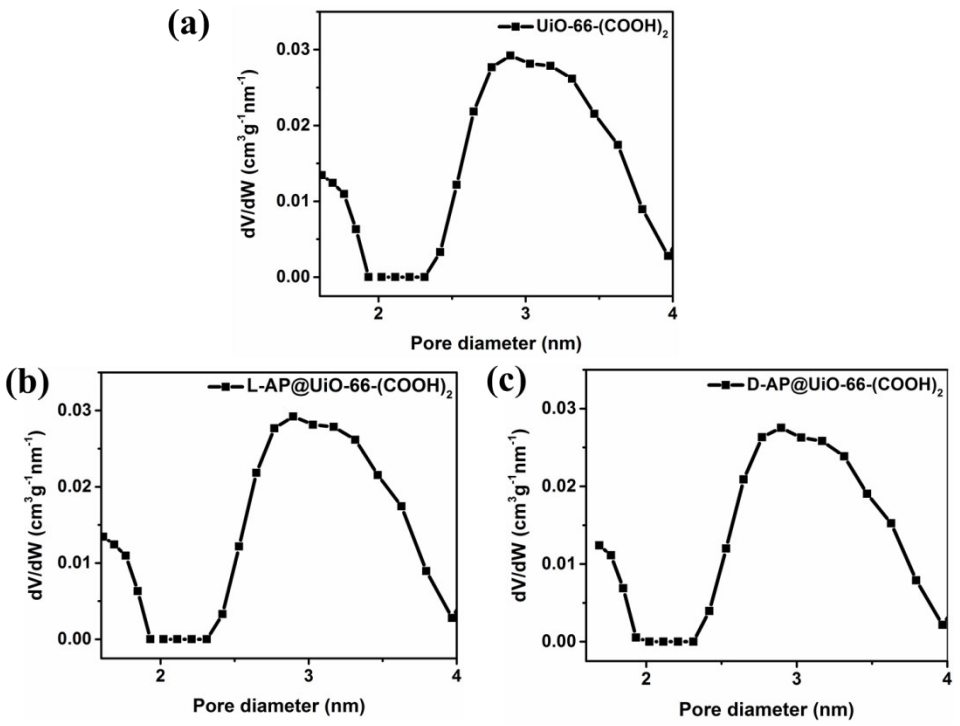

Figure S3 Pore-size distribution of UiO-66-$(COOH)_2$, **S-1** and **R-1**

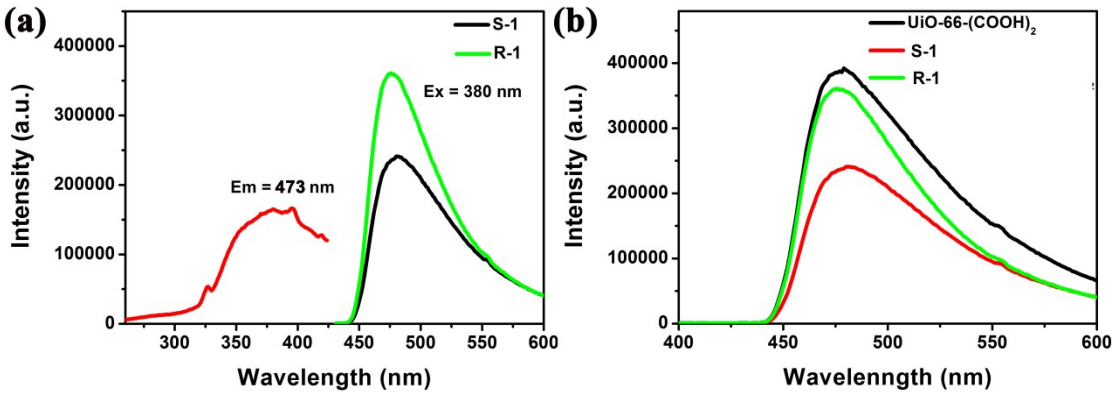

Figure S4 (a) Solid-state excitation and emission spectra of **S-1** and **R-1**. (b) Solid-state emission spectra of UiO-66-$(COOH)_2$, **S-1** and **R-1**

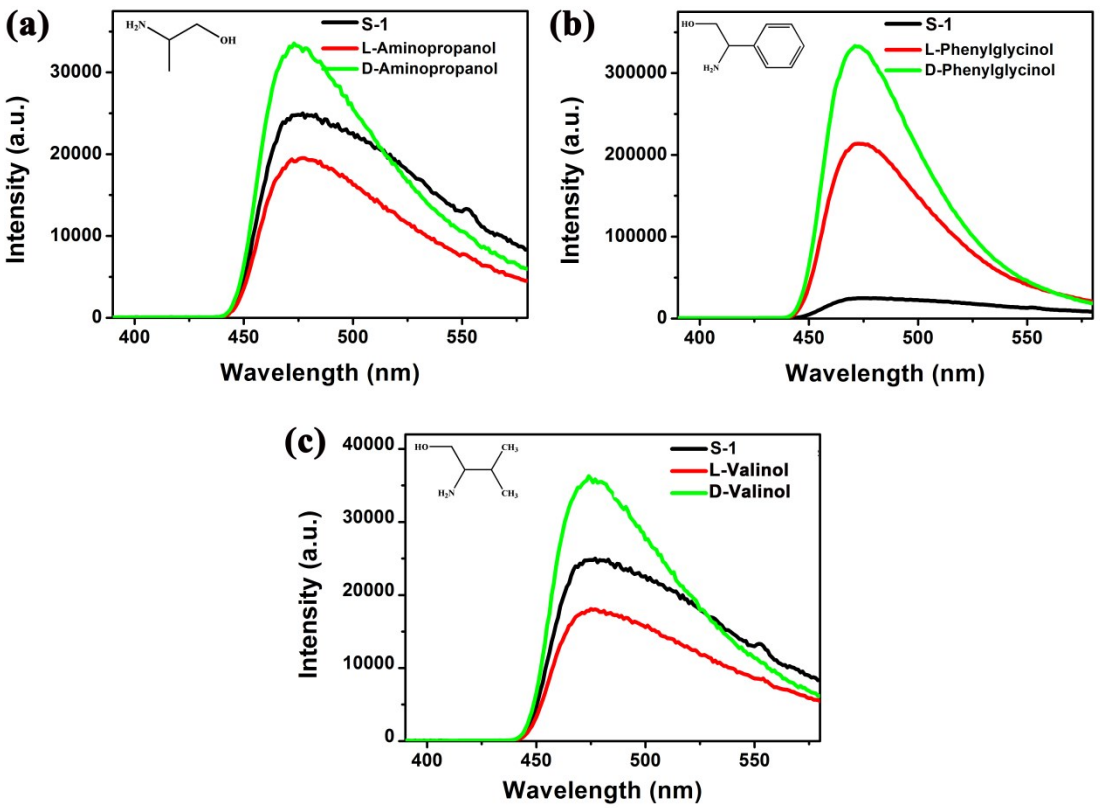

Figure S5 Fluorescence emission spectra of **S-1** toward to L/D Amino propanol (a), L/D-Phenylglycinol (b) and L/D-Valinol (c)

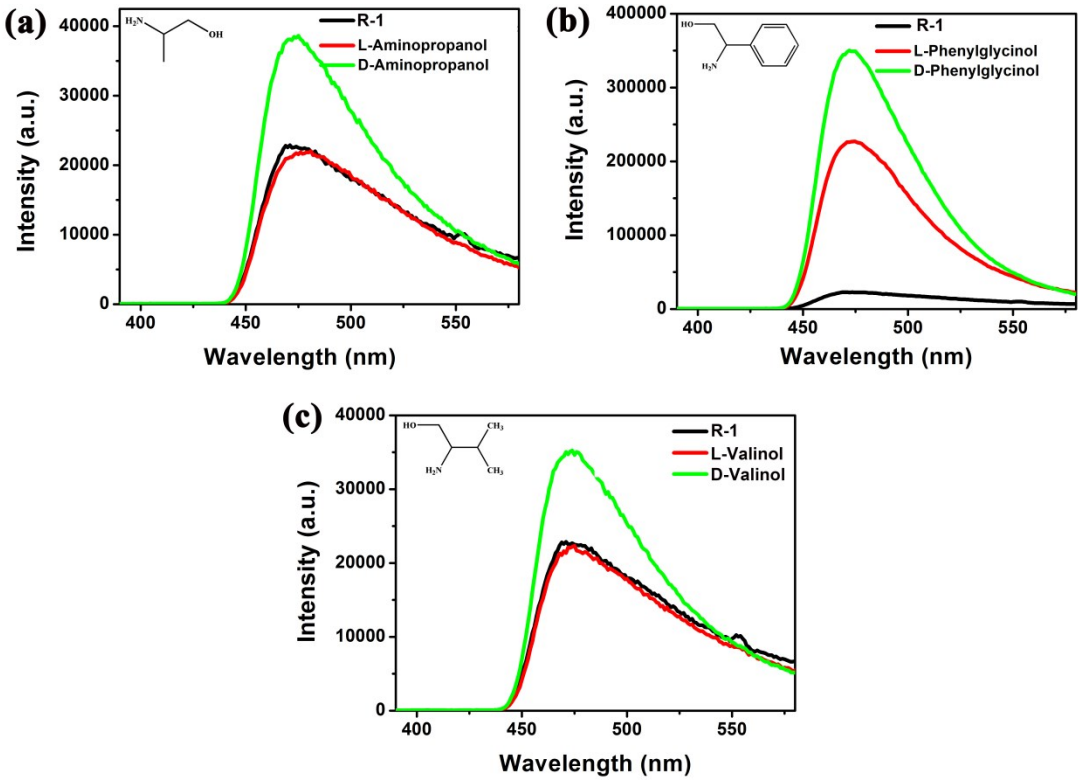

Figure S6 Fluorescence emission spectra of **R-1** toward to L/D Amino propanol (a), L/D-Phenylglycinol (b) and L/D-Valinol (c)

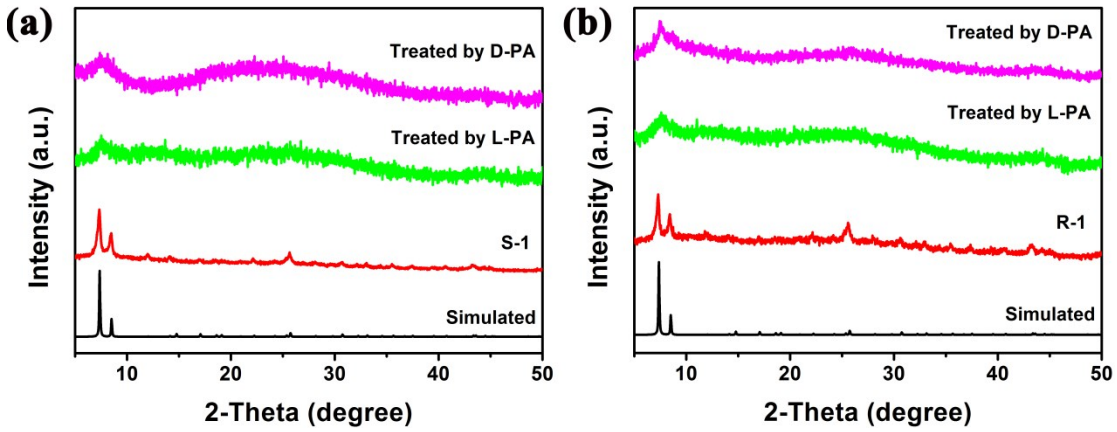

Figure S7 PXRD patterns of **S-1** (a) and **R-1** (b) treated by L-PA and D-PA

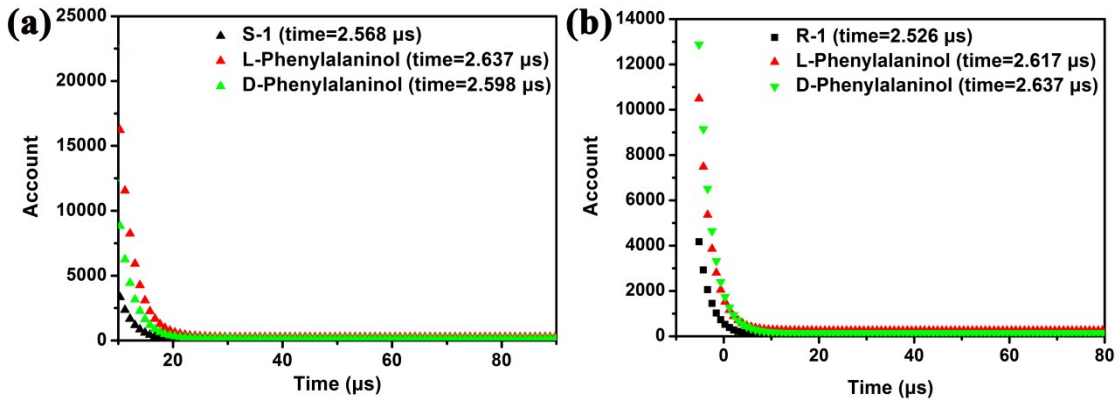

Figure S8 Fluorescence lifetime fitting curve of **S-1** (a) and **R-1** (b) at 473 nm after adding L-PA and D-PA

Table S1 Apparent Association Constants Obtained from S-V plot and Benesi-Hildebrand plot

		R^2	LOD (M)	K_{EC} (M^{-1})	*ef*	Ratio of K_{BH}	α	ΔΔG (kJ mol^{-1})
S-1	L-PA	0.997	3.02×10^{-7}	1591	2.51	1.62	1.89	-1.18
	D-PA	0.993	5.70×10^{-7}	842				
R-1	L-PA	0.912	5.94×10^{-6}	101	0.41	0.18	0.67	-4.12
	D-PA	0.995	3.97×10^{-6}	151				

Table S2 Optimized energy terms (kcal/mol)

	L-PA	D-PA
Stretch	0.5194	0.5183
Bend	1.8135	1.8687
Str-bend	0.1325	0.1387
Torsion	-5.4050	-5.5850

Non-1,4 VDW	-14.6615	-10.4342
1,4 VDW	10.5596	10.3802
Dipole/Dipole	-2.3804	-1.4405
Total Energy	-9.4220	-4.5538