Supporting Information

A novel symmetrical imidazole framework as a fluorescence sensor for selective

detection of Silver ions

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Contents

Fig. S1.	¹ H NMR spectrum of compound 1	1
Fig. S2.	¹³ C NMR spectrum of compound 1	1
Fig. S3.	¹ H NMR spectrum of compound 2	2
Fig. S4.	¹³ C NMR spectrum of compound 2	2
Fig. S5.	¹ H NMR spectrum of BIB	3
Fig. S6.	¹³ C NMR spectrum of BIB	3
Fig. S7.	HRMS spectrum of compound 1	4
Fig. S8.	HRMS spectrum of compound 2	4
Fig. S9.	HRMS spectrum of BIB	4
Fig. S10.	The response time of BIB in absence and presence of Ag^+	5
Fig. S11.	Reversibility of BIB upon sequential addition of Ag^+ and $NH_3 \cdot H_2O$	5
Fig. S12.	Photographs of test paper strips for detecting real samples	6
Fig. S13.	The water content in DMF-H ₂ O affects the detection of Ag+ ions	6
Fig. S14.	The response of the detection of Ag+ ions in other solvents	6
Table S1	Determination of Ag ⁺ in real samples using AAS analysis	7
Table S2	Determination of Ag ⁺ in real samples using test paper strips	7



















$\begin{array}{c} 2.07\\ 2.05\\ 2.05\\ 2.03\\ 2.03\\ 1.33\\ 1.33\\ 1.33\\ 1.33\\ 1.33\\ 1.33\\ 1.32\\ 0.85\\ 0.85\\ 0.83\\ 0.83\\ 0.82\\$

8.50 8.50 8.50 8.60 8.61 8.60 8.63 8.60 8.64 8.60 8.65 8.60 8.65 8.60 8.65 8.60 8.65 8.60 8.65 7.25 17.33 7.34 17.34 7.34 17.35 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.34 17.36 7.49 17.37 7.49 17.38 7.49 17.34 7.49 17.49 7.49 17.49 7.49 17.49 7.49 17.49 7.49 <t



Fig. S5. ¹H NMR spectrum of **BIB**







Fig. S7. HRMS spectrum of compound 1



Fig. S8. HRMS spectrum of compound 2



Fig. S9. HRMS spectrum of imidazoles BIB



Fig. S10. The response time of BIB in the absence and presence of Ag^+ .



Fig. S11. Reversibility of BIB upon sequential addition of Ag^+ and $NH_3 \cdot H_2O$.



Fig. S12. Photographs of test paper strips with BIB (A: Blank) for detecting city water (B), lake water of university (C), and drinking water in market (D) with Ag^+ (3 μ M) under UV light at 365 nm.



Fig. S13. The water content in DMF-H₂O affects the detection of Ag+ ions.



Fig. S14. The response of the detection of Ag+ ions in other solvents.

Table S1. Determination of Ag in real samples using AAS analysis (1–5).						
Deel commiss	Added	Found	Recovery	RSD		
Real samples	(×10 ⁻⁶ mol·L ⁻¹)	(×10 ⁻⁶ mol·L ⁻¹)	(%)	(%)		
- :	2.00	2.08	104.00	0.37		
city water	4.00	4.16	104.00	1.06		
lake water of University	2.00	2.42	121.00	2.31		
lake water of Oniversity	4.00	4.09	102.25	0.42		
drinking water in market	2.00	2.21	110.50	0.54		
urmking water in market	4.00	4.39	109.75	1.86		

Table S1. Determination of Ag⁺ in real samples using AAS analysis (n=3).

Table S2. Determination of Ag^+ in real samples using test paper strips (n=5).

Table 52. Determination of Ag ⁻ in real samples using test paper surps (ii-5).						
Real samples	Added	Found	Recovery	RSD		
	$(\times 10^{-6} \text{mol} \cdot \text{L}^{-1})$	$(\times 10^{-6} \text{mol} \cdot \text{L}^{-1})$	(%)	(%)		
city water	3.00	3.48	116.00	2.09		
lake water of University	3.00	3.22	107.00	3.63		
drinking water in market	3.00	2.89	96.33	3.21		