

For Iodine (I₂):

Extraction of I₂ by HOM-Captor2: We have prepared High Ordered Mesoporous Monoliths (HOM) for carrier. The selected ligand/chromophor was absorbed onto HOM materials to make as HOM-Captor2 for visual detection and extraction of I₂. pH solution (5.2) was prepared by mixing of sodium acetate and acetic acid. Here we have taken 4 mL of pH 5.2 solution for preparation of initial solution volume of 20 mL.

HOM- Collector1 for visual extraction of I₂

Collector	Solution Volume (mL)	Solution pH	Initial I ₂ Concentration (ppm)	Amount of HOM-Captor2 (mg)	Shaking (min.)	Extracted I ₂ Concentration (ppm)	Visual Extraction Limit (mol dm ⁻³)	Removal efficiency (%)	Stripping agent	Effective Extraction range (ppm)	Extraction Efficiency (%)
HOM-Collector2	20	5.2	4.0	40.0	60	3.8	5.16 x 10 ⁻⁸	95%	2.0 M HCl	0.001 to 20.0	90%