

Supporting Information

A Centrifugal Microfluidic Chip with Integrated Solid-Phase Extraction for Separation and Detection of Cd²⁺ and Cu²⁺

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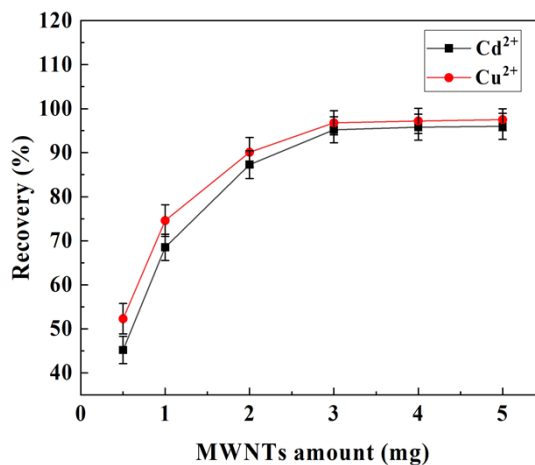


Figure S1. Effect of MWNTs amount on the adsorption efficiency of Cd²⁺ and Cu²⁺. Conditions: initial metal ion concentration 1.0 mg/L, pH 6.95, AC concentration 1.0 mmol/L, shaking time 30 min. Data are presented as mean ± SD (n = 3).

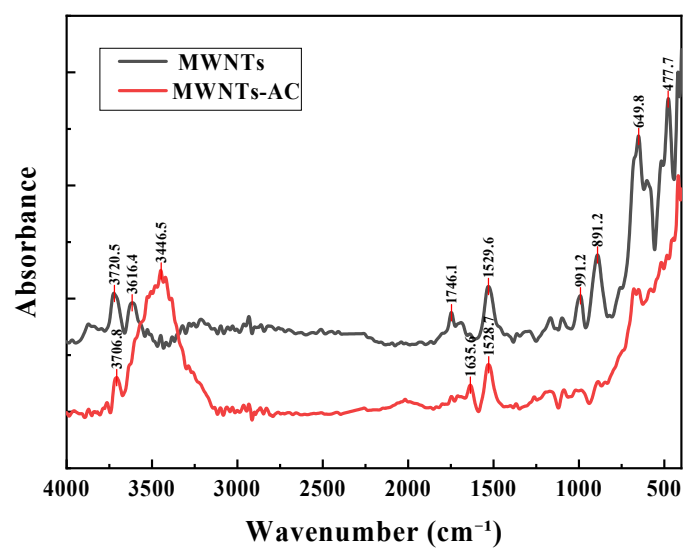


Figure S2. FT-IR spectra of pristine MWNTs and MWNTs after adsorption of alizarin complexone (AC). The AC-adsorbed MWNTs show characteristic AC peaks: O–H stretching at $\sim 3446\text{ cm}^{-1}$, aromatic C=C at $\sim 1636\text{ cm}^{-1}$, and a weakened carboxyl C=O peak at $\sim 1746\text{ cm}^{-1}$, indicating successful loading of AC onto MWNTs via non-covalent interactions.