Highly sensitive and selective fiber-optic modal interferometric sensor for detecting trace mercury ion in aqueous solution

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**Fig. S1.** The performance of TCFMI mercury ion sensor tested at pH=1 HgCl₂ solutions: a) Spectrum of TCFMI before (solid line) and after (dashed line) the deposition of (P4VP-HCl/PSS)₁₀ multilayers; b) The response of the fabricated TCFMI mercury sensor to different HgCl₂ solution concentration. The inset shows the measured spectra.
Fig. S2. The performance of TCFMI mercury ion sensor tested at pH=3 HgCl$_2$ solutions: a) Spectrum of TCFMI before (solid line) and after (dashed line) the deposition of (P4VP·HCl /PSS)$_{10}$ multilayers; b) The response of the fabricated TCFMI mercury sensor to different HgCl$_2$ solution concentration. The inset shows the measured spectra.
Fig. S3. The performance of TCFMI mercury ion sensor tested at pH=8 HgCl$_2$ solutions: a) Spectrum of TCFMI before (solid line) and after (dashed line) the deposition of (P4VP·HCl /PSS)$_{10}$ multilayers; b) The response of the fabricated TCFMI mercury sensor to different HgCl$_2$ solution concentration. The inset shows the measured spectra.