Supporting Information

Multisignaling Detection of Hg$^{2+}$ Based on a Phosphorescent Iridium(III) Complex

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Figure S1. Response of UV-Vis absorption spectra of Ir(thq)$_2$(acac) (20 µM) in CH$_3$CN solution to various amounts of metal ions.
Figure S2. Response of fluorescence spectra of Ir(thq)₂(acac) (20 µM) in CH₃CN solution to various amounts of metal ions. λₑₓ = 375nm.
Figure S3. Reduction potentials of Ir(thq)$_2$(acac) before and after addition of 1 eq. Hg$^{2+}$. 
Table S1. HOMO and LUMO distributions of \( \text{Ir(btp)}_2(\text{acac})-\text{Hg}^{2+} \) and \( \text{Ir(thq)}_2(\text{acac})-\text{Hg}^{2+} \).
Table S2. Calculated charges on Hg and S atoms.

<table>
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<th>Ir(btp)$_2$(acac)</th>
<th>Ir(thq)$_2$(acac)</th>
<th>Ir(btp)$_2$(acac)-Hg$^{2+}$</th>
<th>Ir(thq)$_2$(acac)-Hg$^{2+}$</th>
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