Electronic Supplementary Information for Dalton Transactions
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Supporting Information

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

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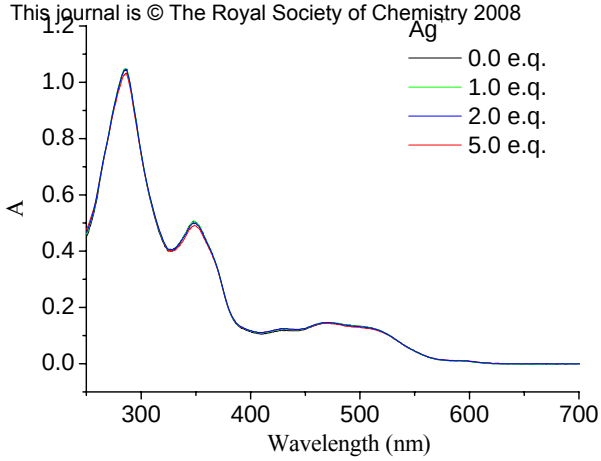

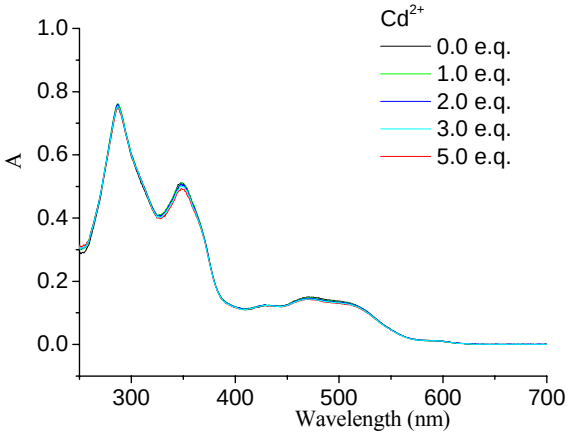

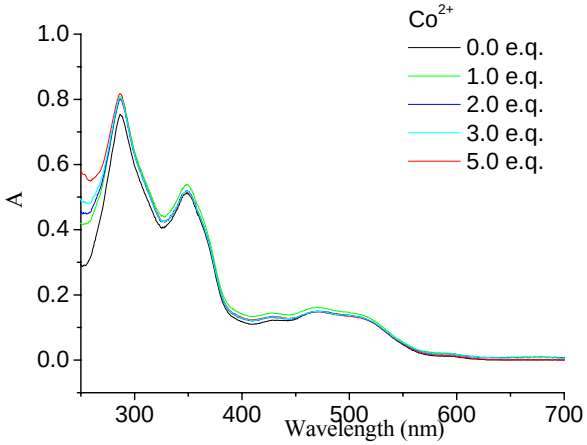

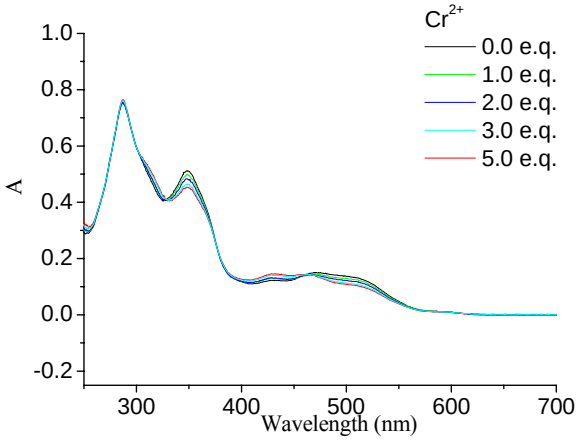

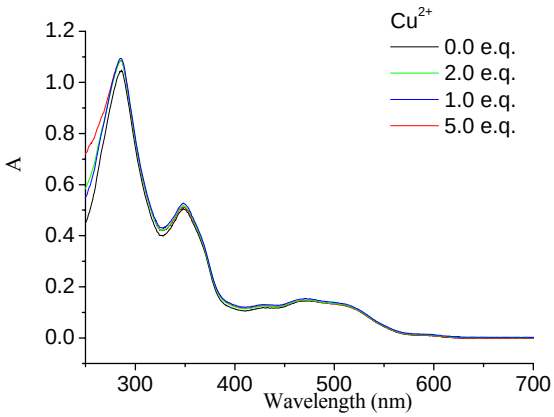

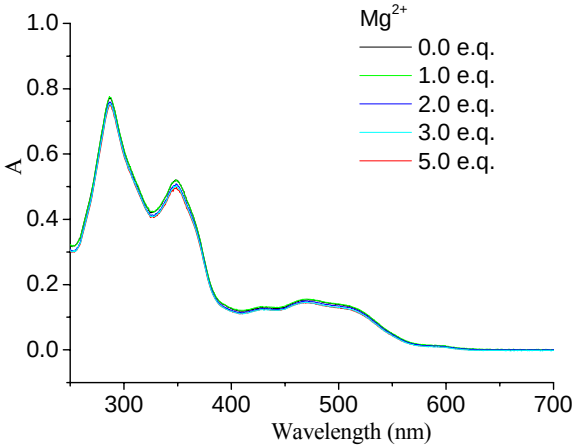

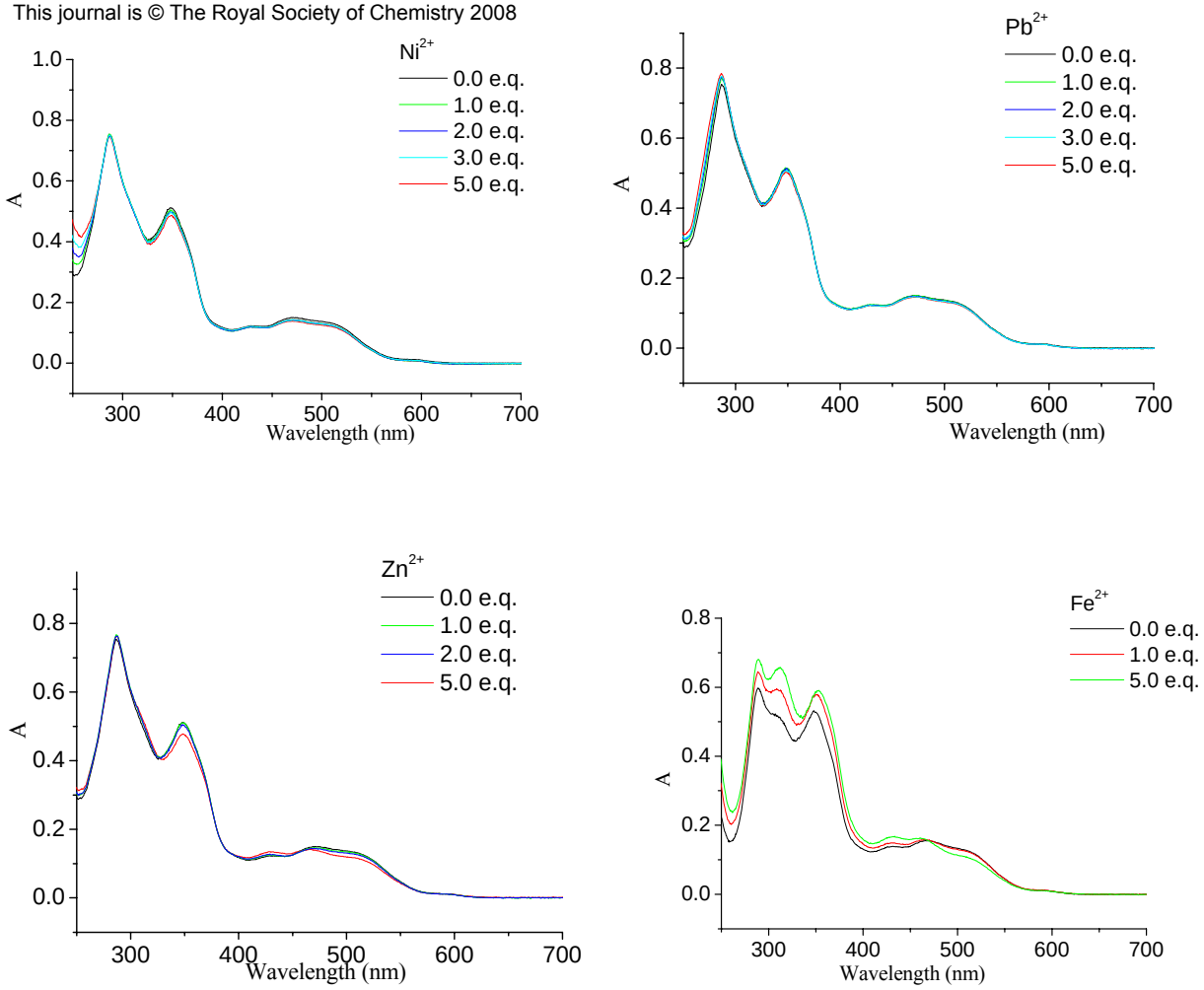

Figure S1. Response of UV-Vis absorption spectra of $Ir(thq)_2(acac)$ (20 μM) in CH_3CN solution to various amounts of metal ions.

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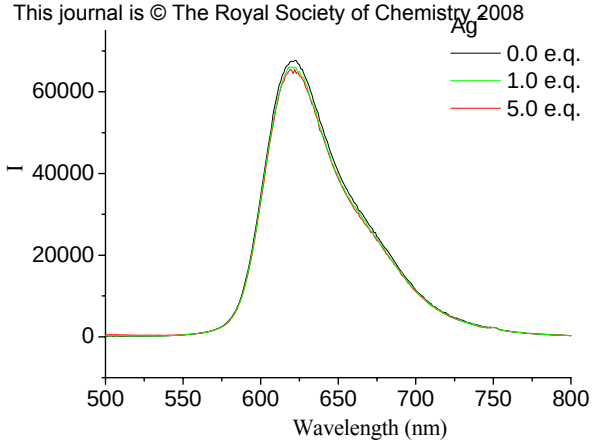

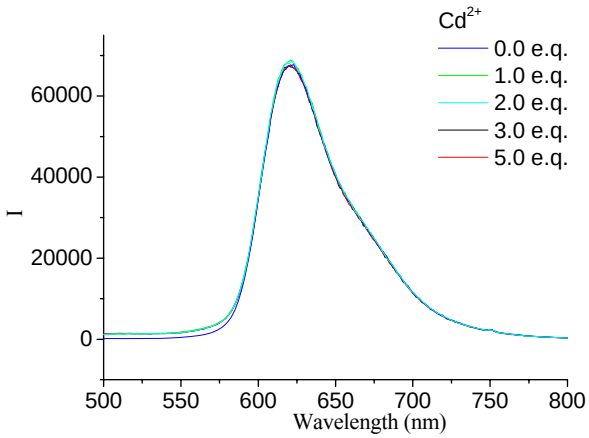

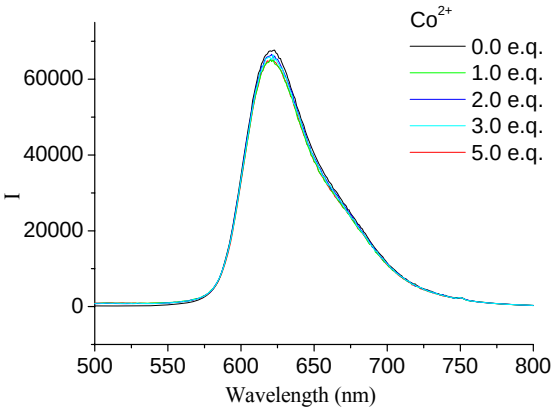

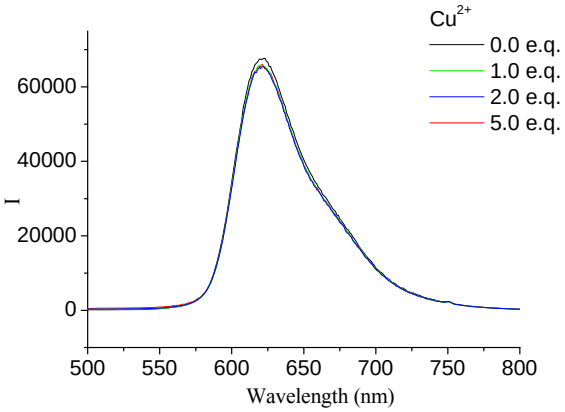

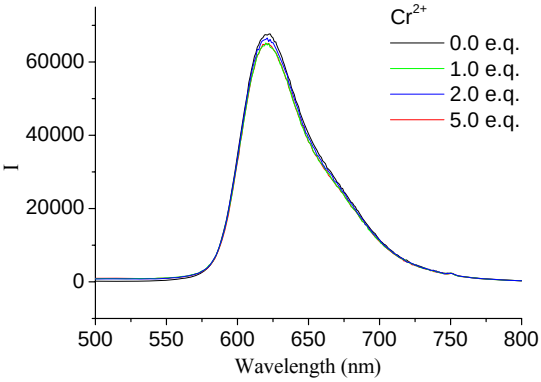

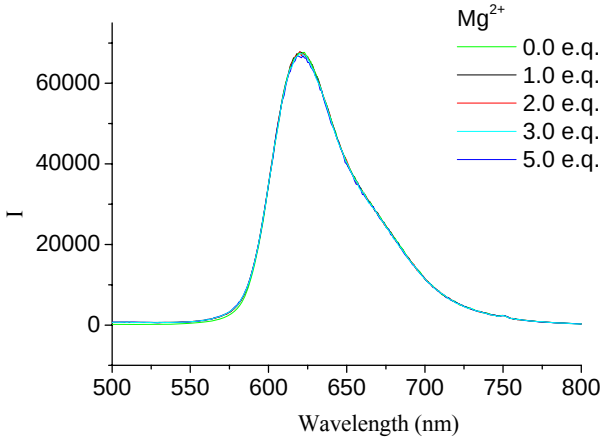

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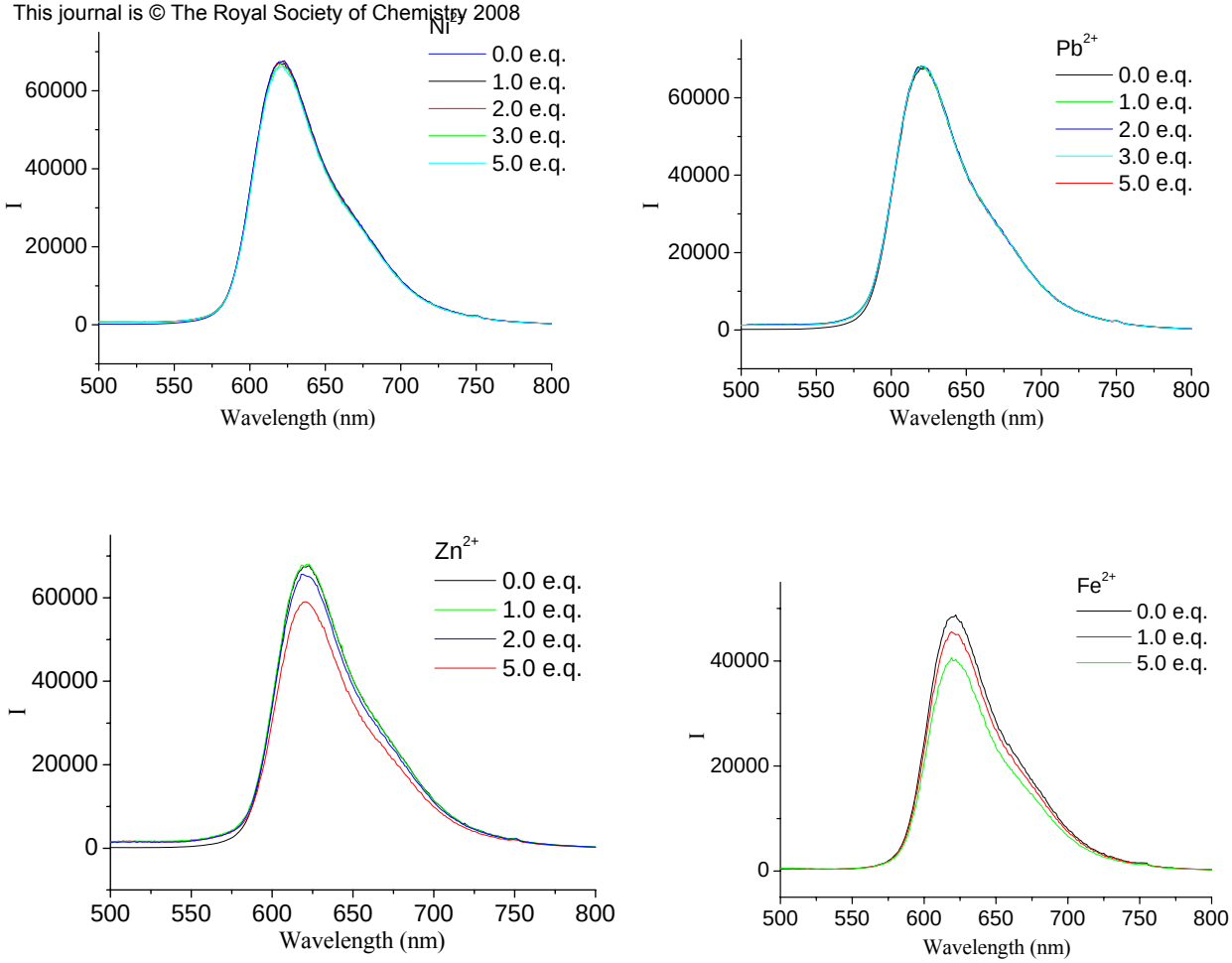

Figure S2. Response of fluorescence spectra of $Ir(thq)_2(acac)$ (20 μM) in CH_3CN solution to various amounts of metal ions. λ_{ex} = 375nm.

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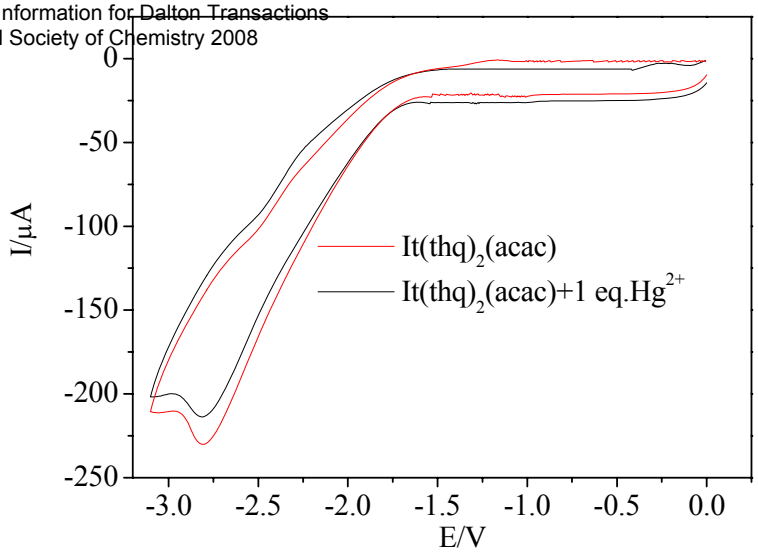

Figure S3. Reduction potentials of $Ir(thq)_2(acac)$ before and after addition of 1 eq. Hg^{2+}.

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Table S1. HOMO and LUMO distributions of $Ir(btp)_2(acac)$-Hg^{2+} and .$Ir(thq)_2(acac)$ -Hg^{2+}.

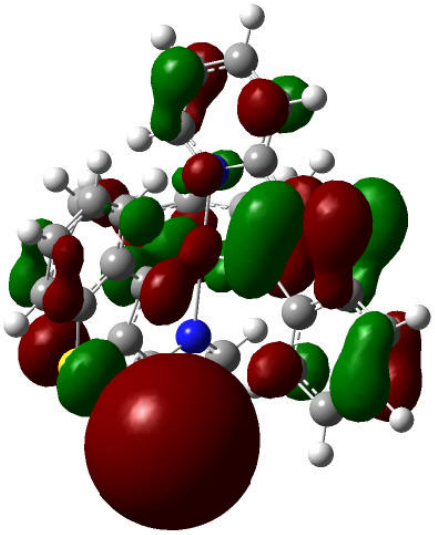
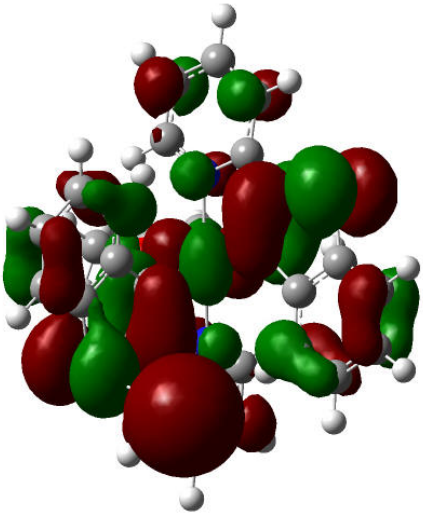
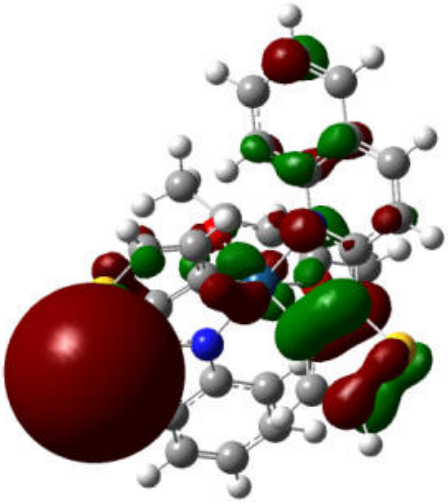
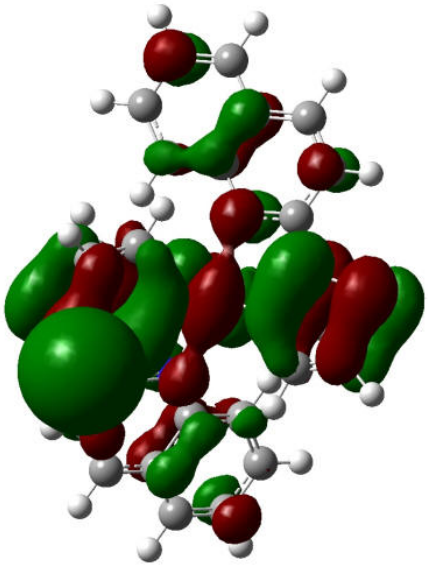
	HOMO	LUMO
$Ir(btp)_2(acac)$-Hg^{2+}		
$Ir(thq)_2(acac)$-Hg^{2+}		

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Table S2. Calculated charges on Hg and S atoms.

	$Ir(btp)_2(acac)$	$Ir(thq)_2(acac)$	$Ir(btp)_2(acac)$-Hg^{2+}	$Ir(thq)_2(acac)$-Hg^{2+}
S	0.3953	0.4122	0.6080	0.5634
	0.3947	0.4165	0.5940	o.5736
Hg			0.1587	0.2079