Supporting Information

Synthesis and Photophysical Properties of Multinuclear Zinc Salophen Complexes: Enhancement of Fluorescence by Fluorene Termini

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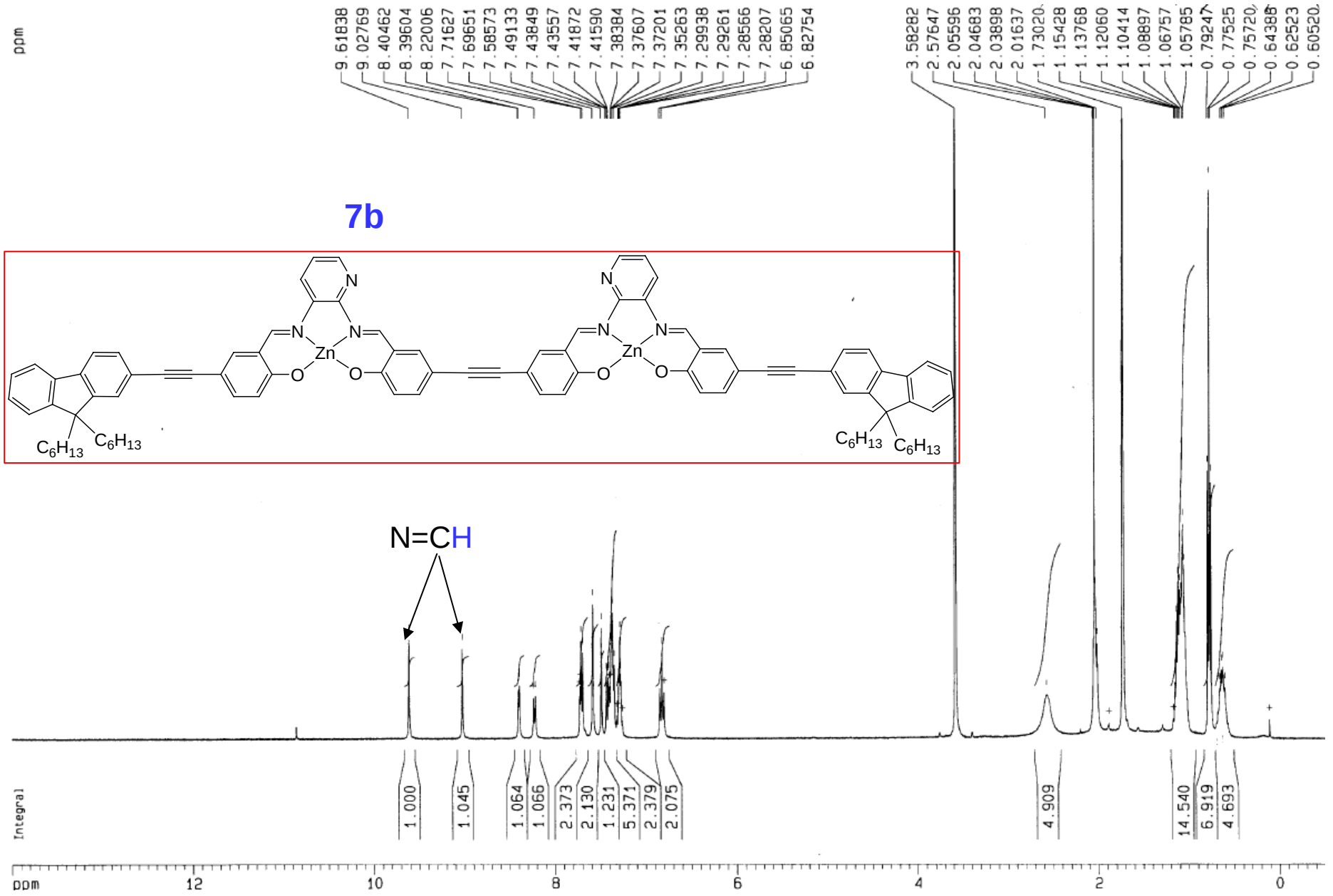


Figure S1. ^{1}H NMR spectrum of complex **7b**

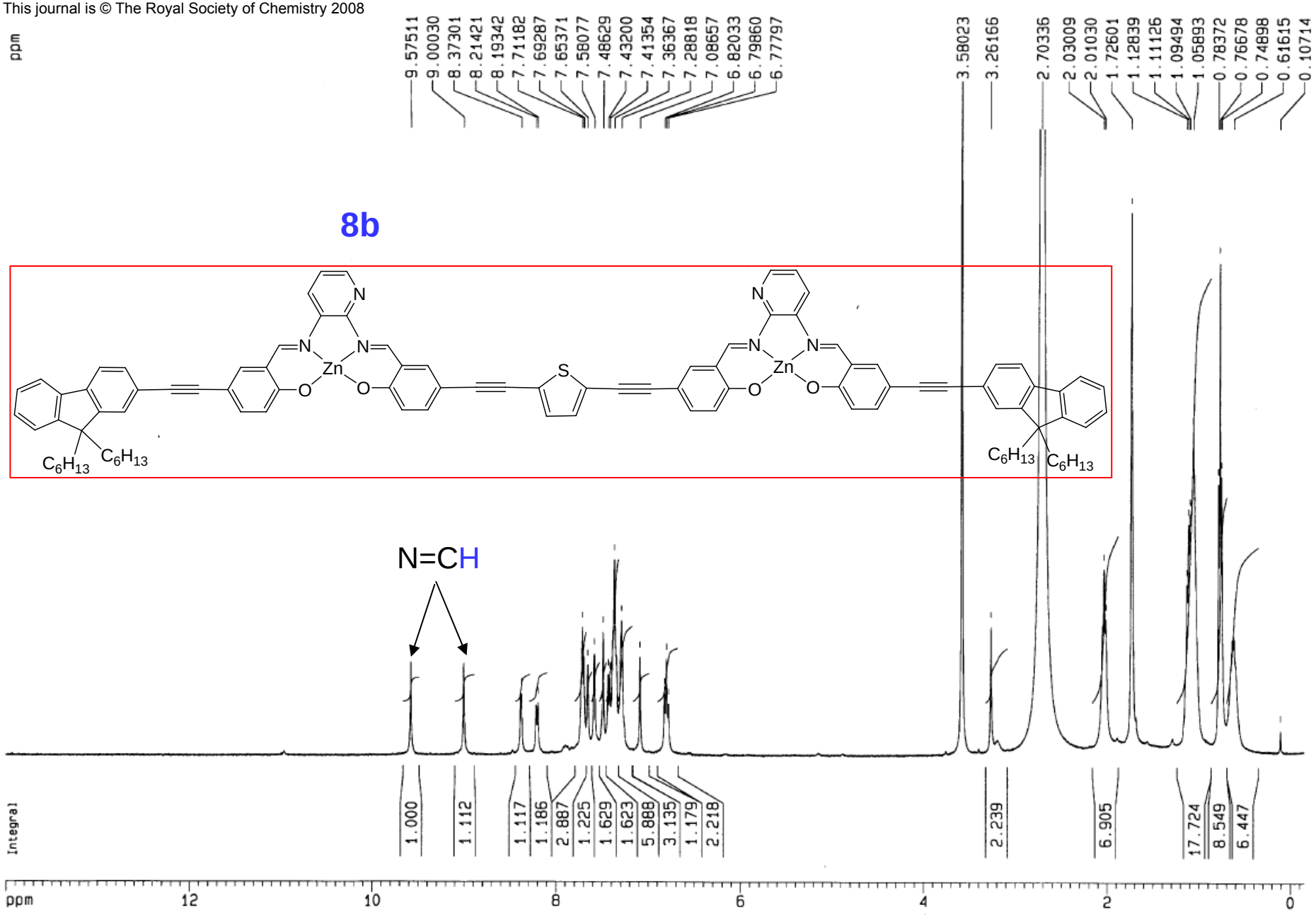


Figure S2. ^{1}H NMR spectrum of complex **8b**

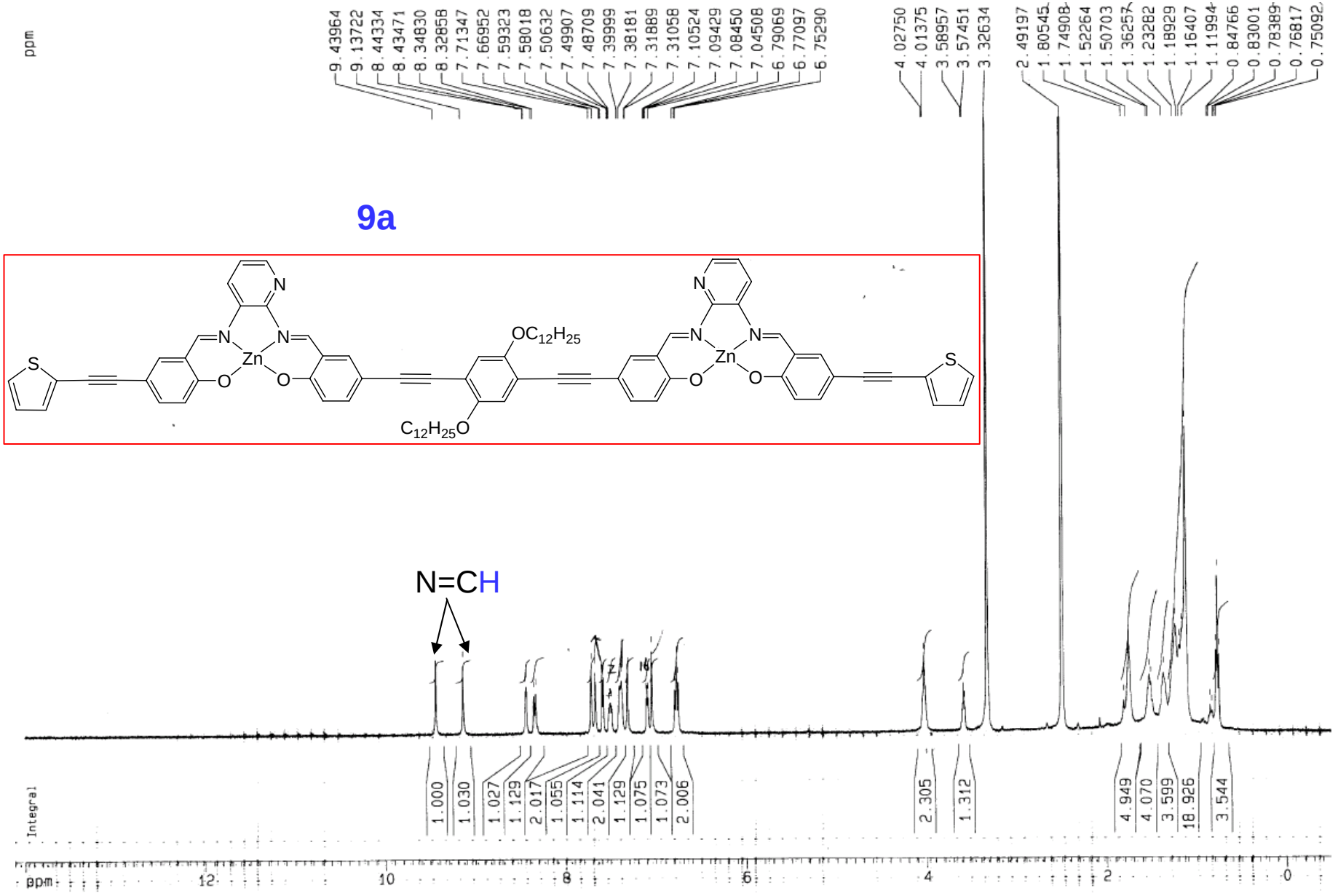


Figure S3. ^{1}H NMR spectrum of complex **9a**

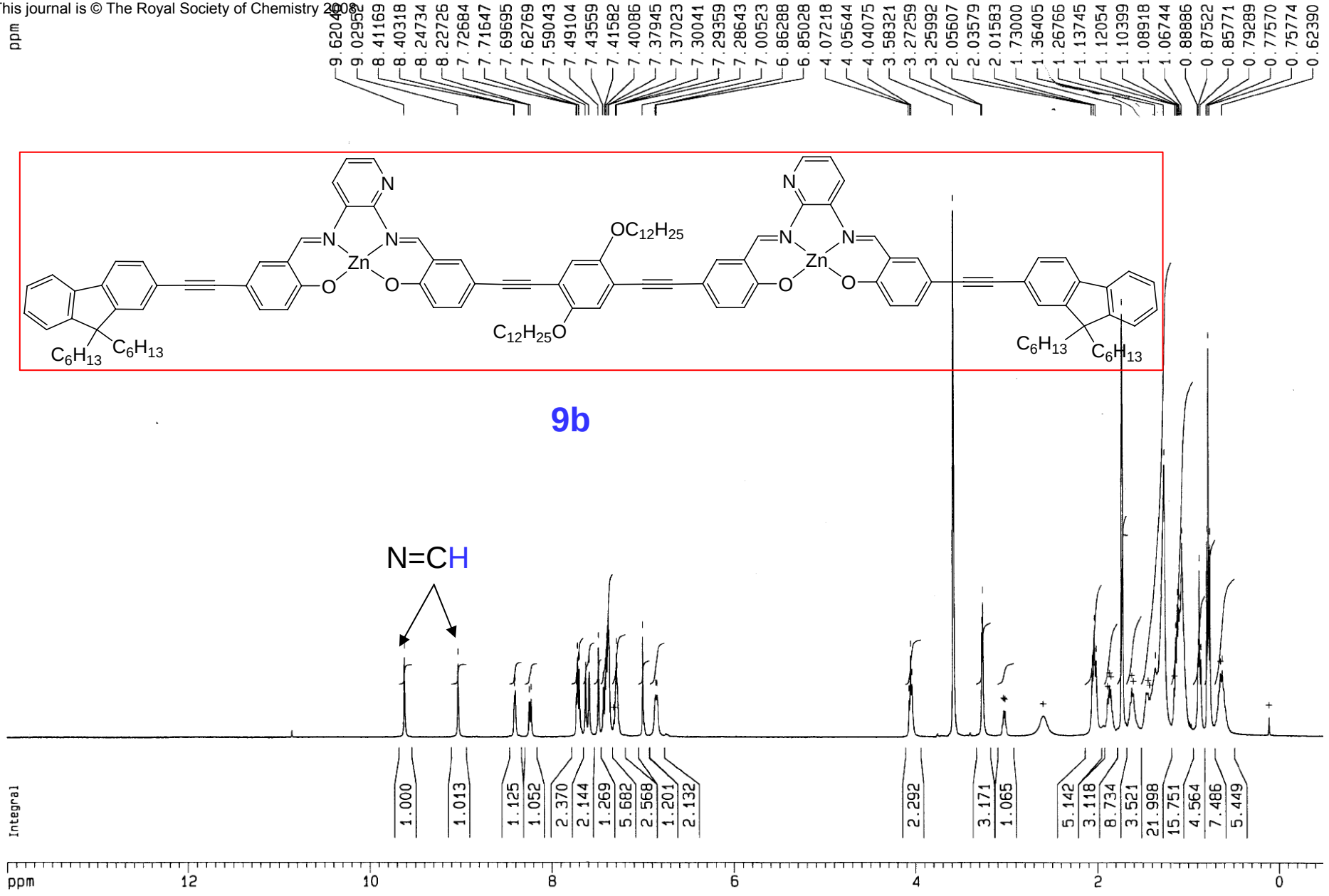


Figure S4. ^{1}H NMR spectrum of complex **9b**

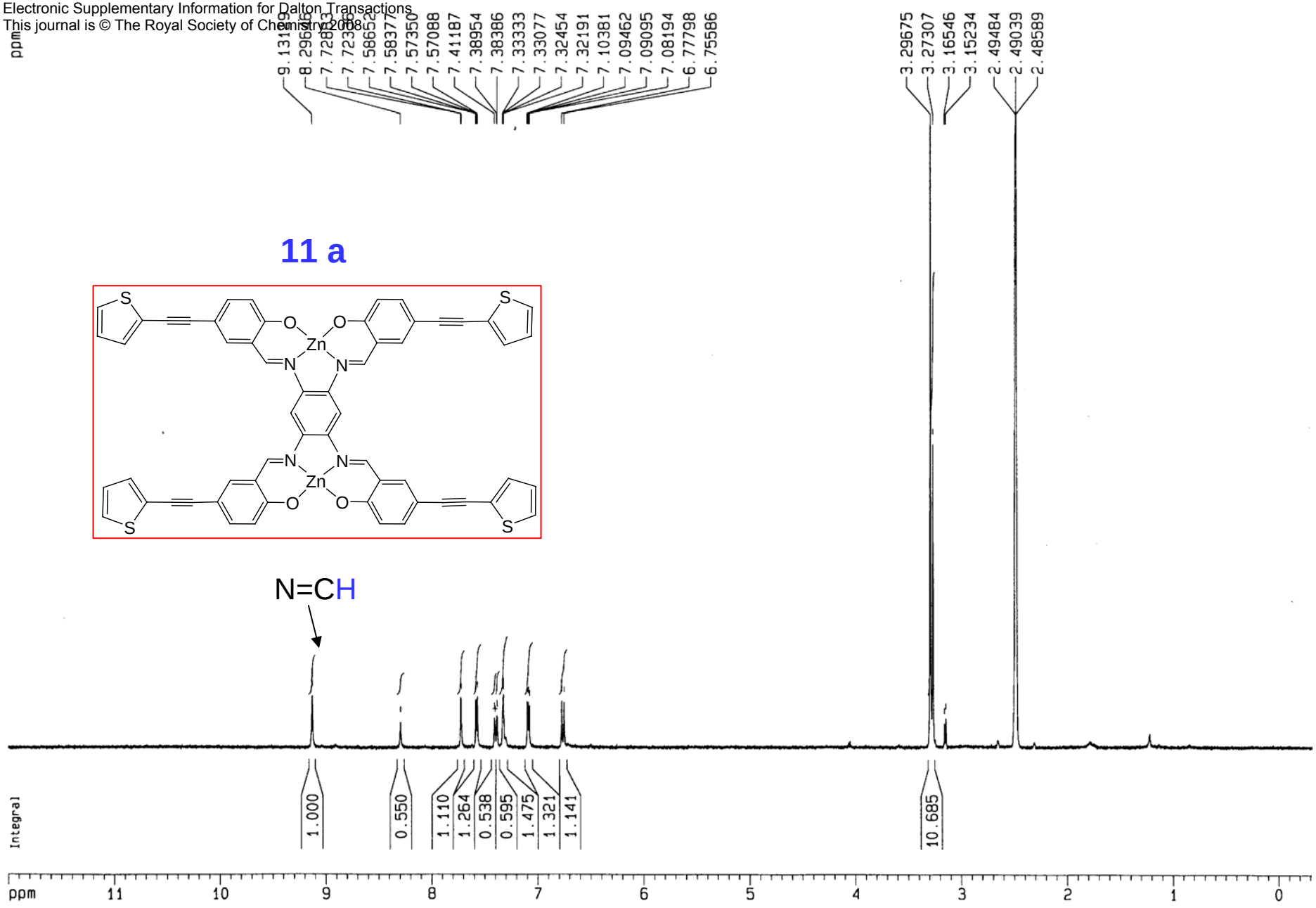


Figure S5. ^{1}H NMR spectrum of complex **11a**

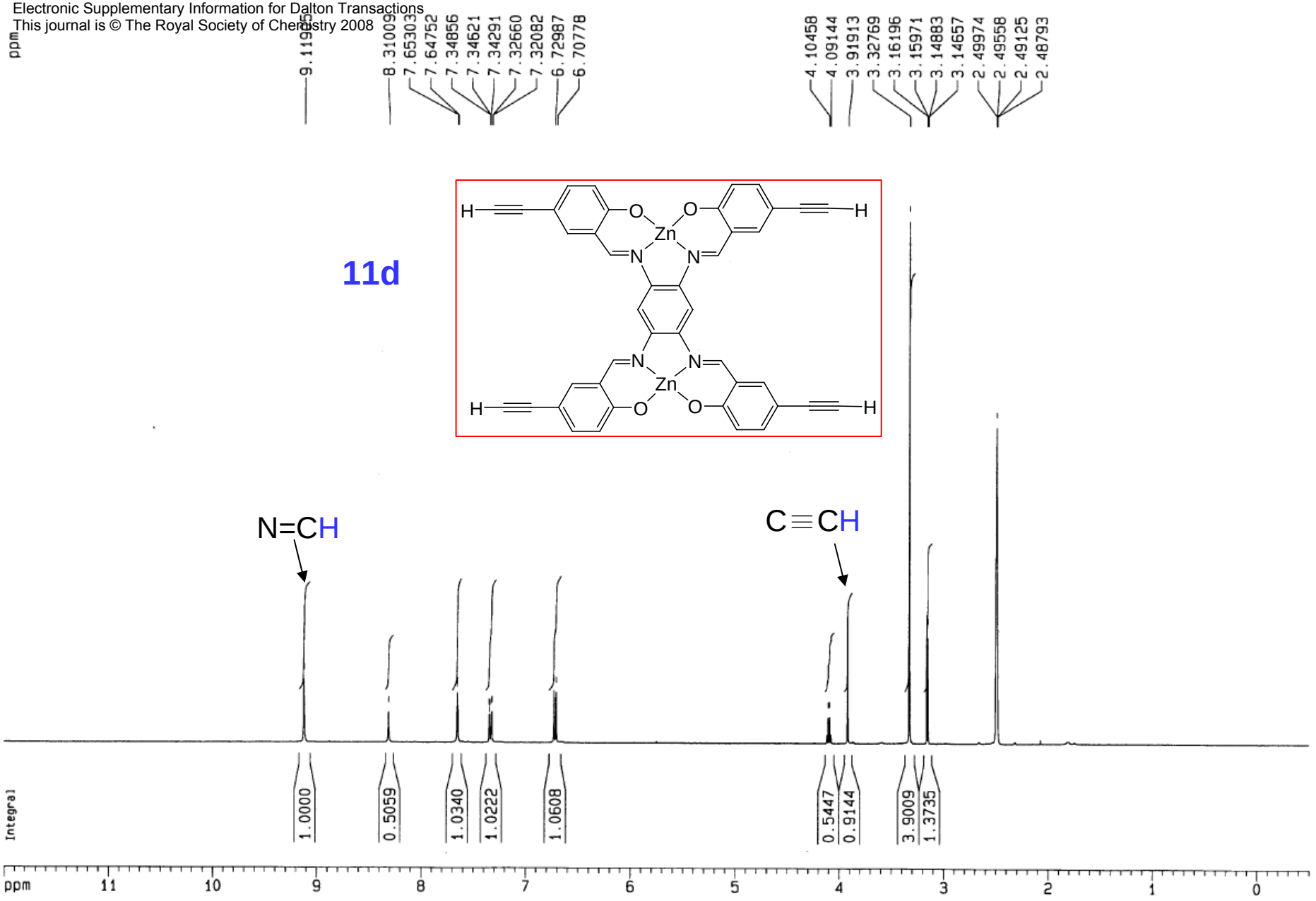


Figure S6. ^{1}H NMR spectrum of complex **11d**

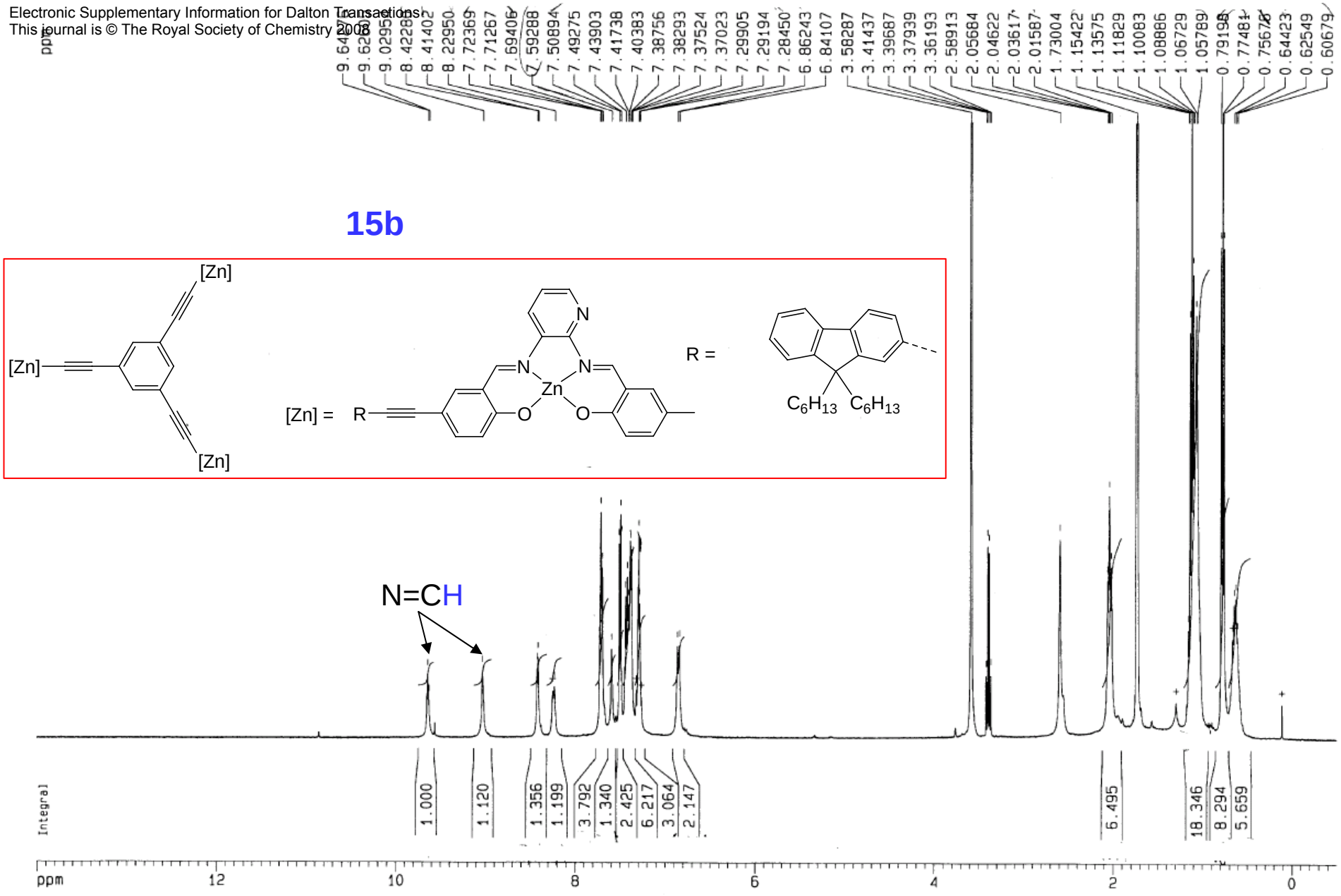
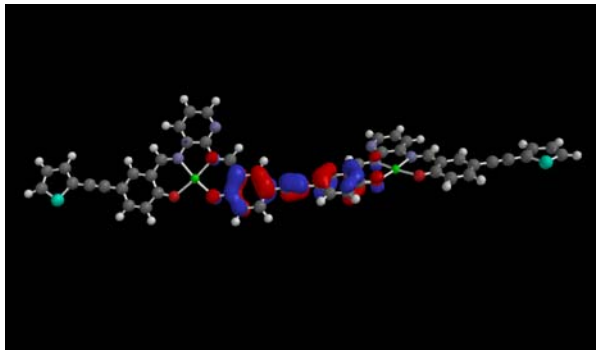
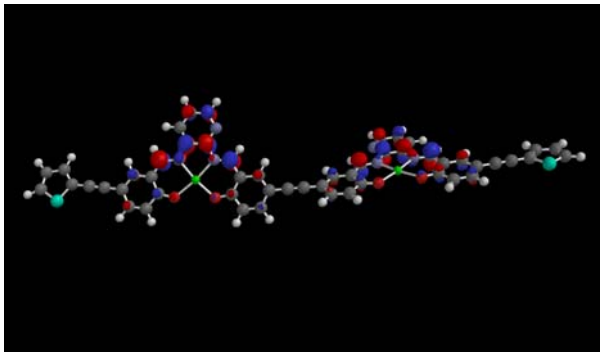
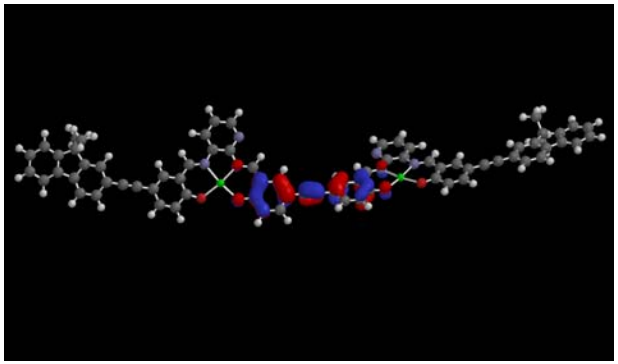
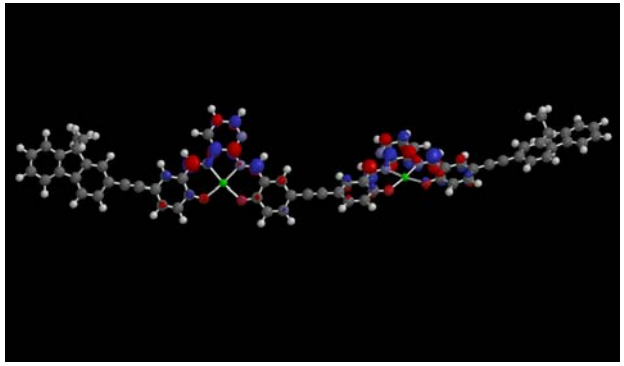
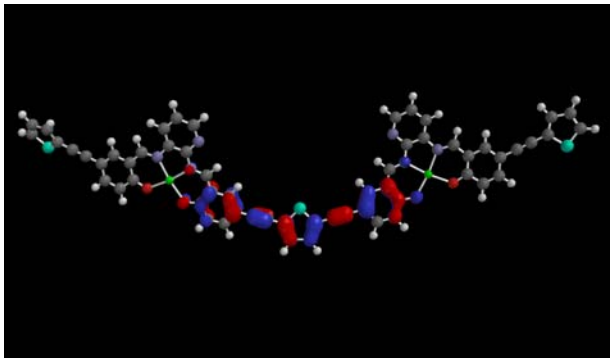
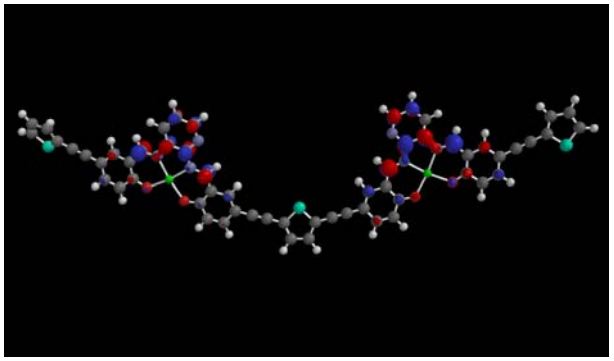


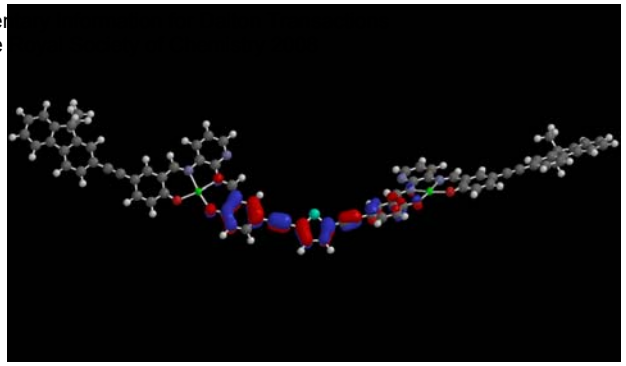
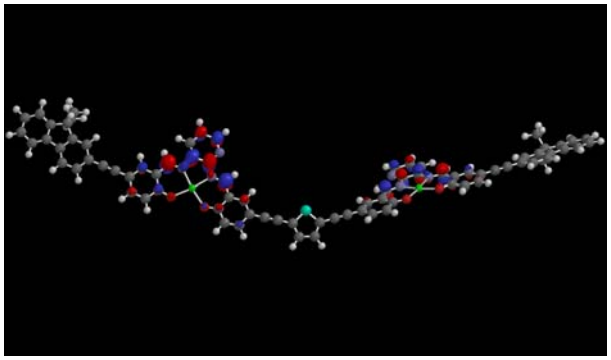
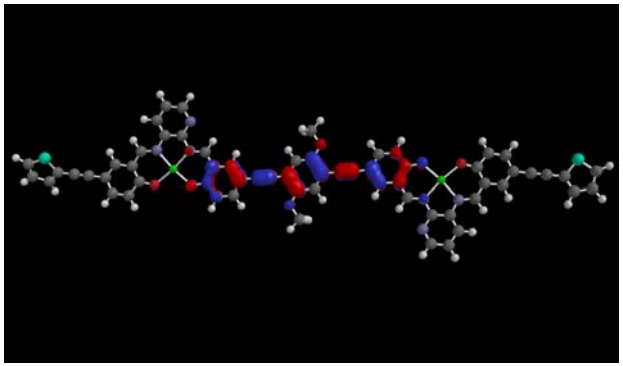
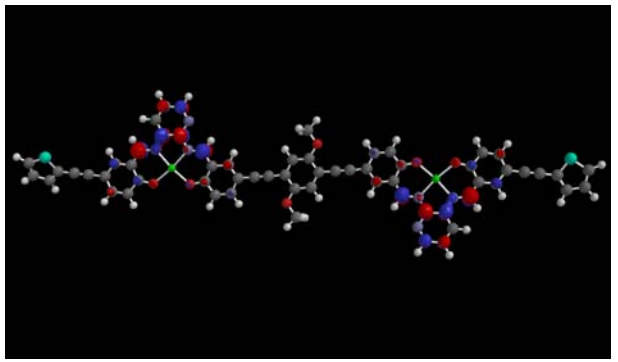
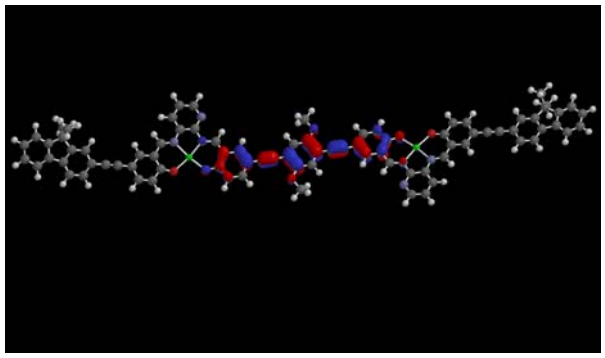
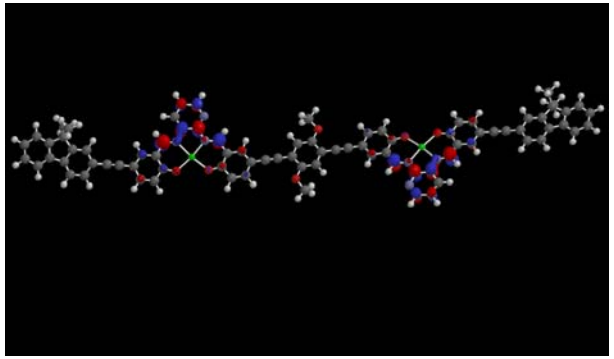
Figure S7. 1H NMR spectrum of complex **15b**

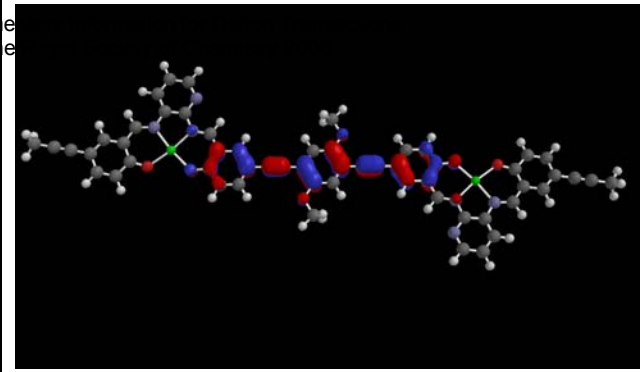
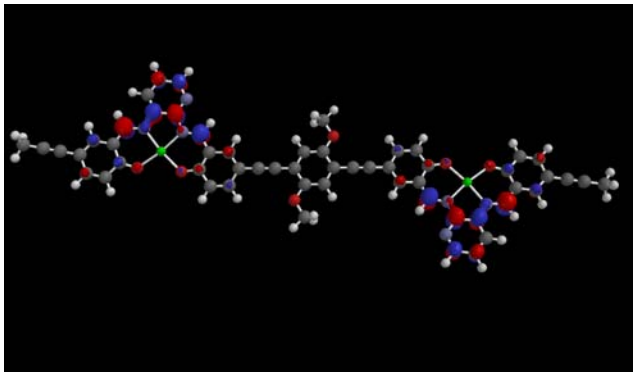
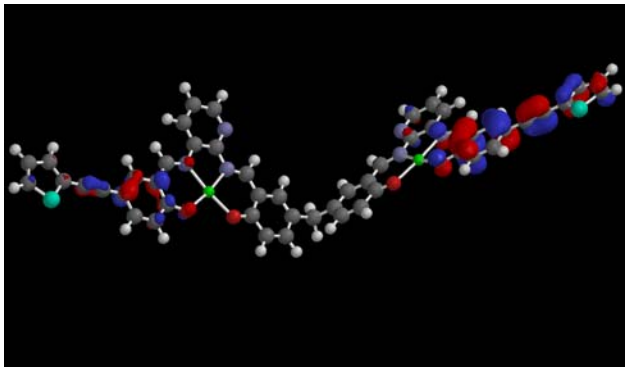
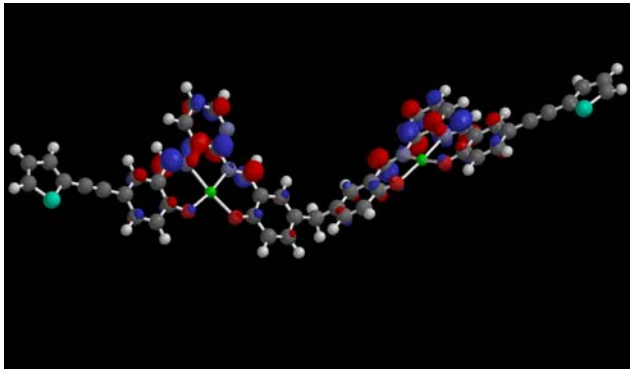
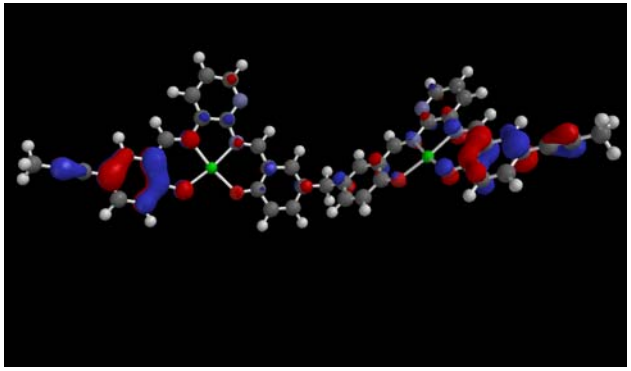
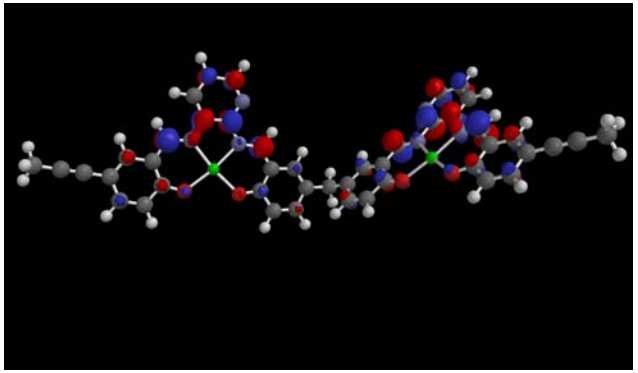
Table S1. Comparison of the photophysical property with energy gap for complexes **9-13** in the MO calculation

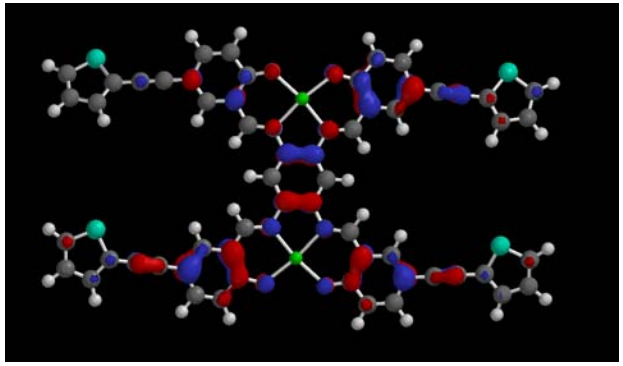
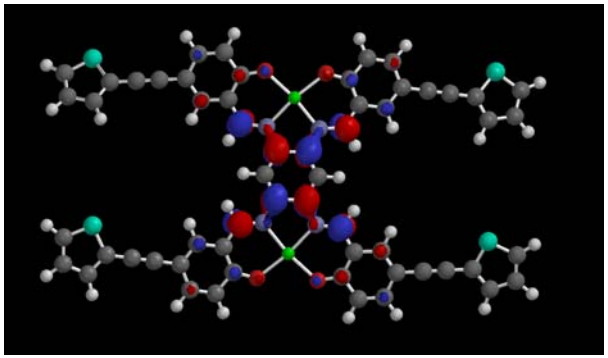
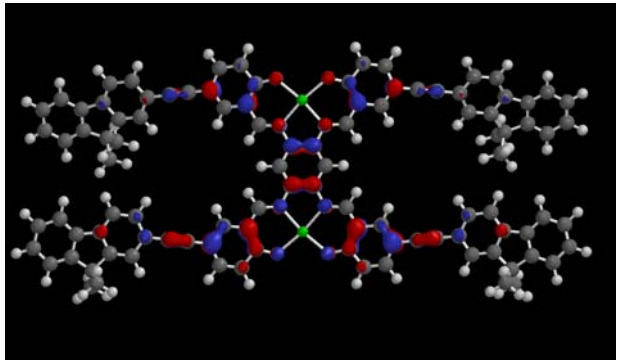
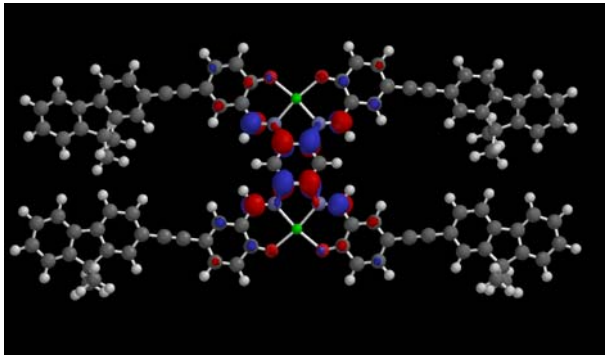
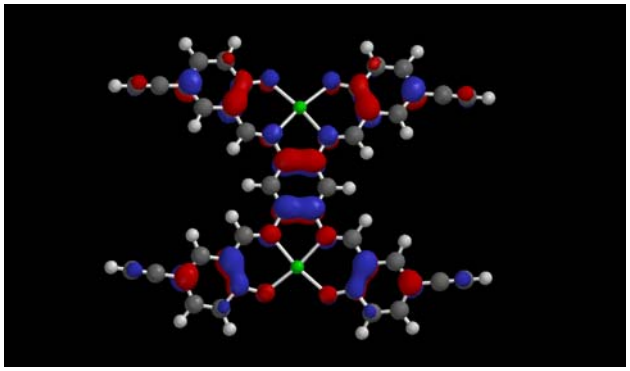
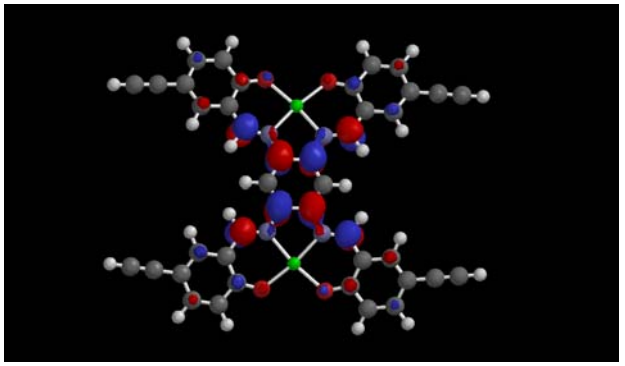
Compounds	Absorption λ_{max}, nm	Emission λ_{max}, nm	MO Calculation Energy gap (eV)	MO Calculation Energy gap (cm^{-1})
7a	482	559.0	6.48	52265
7b	487	558.6	6.46	52103
8a	486	544.8	6.38	51458
8b	487	552.6	6.45	52023
9a	485	555.6	6.29	50732
9b	487	554.4	6.31	50894
9c	487	555.6	6.31	50894
10a	483	537.8	6.62	53394
10c	481	531.6	6.75	54442
11a	519	563.4	6.11	49280
11b	522	567.6	6.08	49038
11d	501	547.4	6.26	50490
11e	531	596.6	5.97	48151
12	495	535.0	6.37	51377
13	520	560.0	6.27	50571

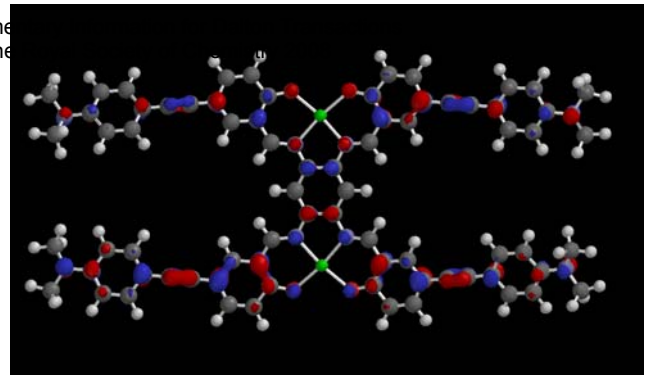
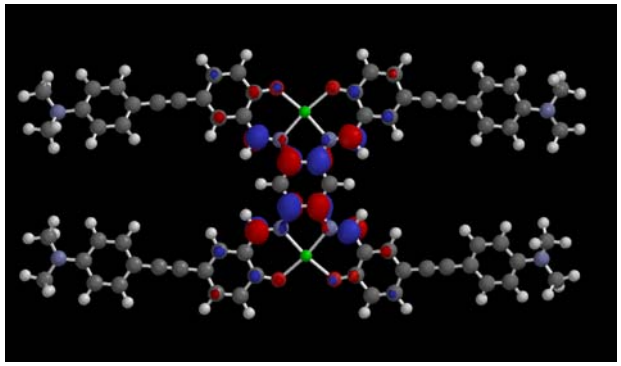
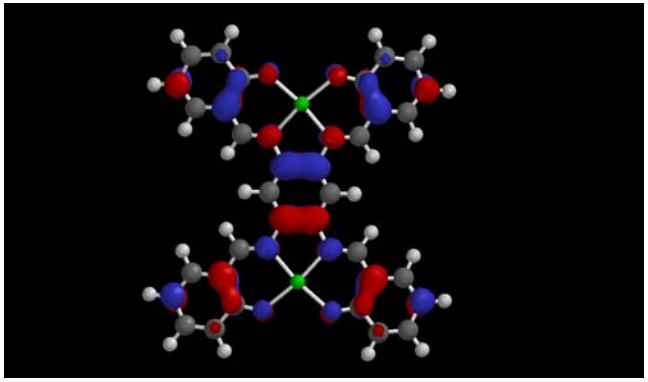
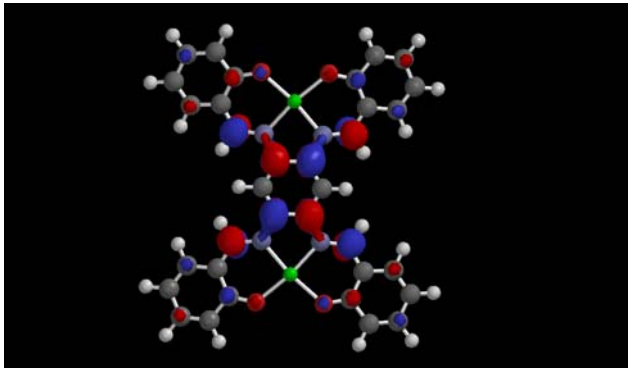
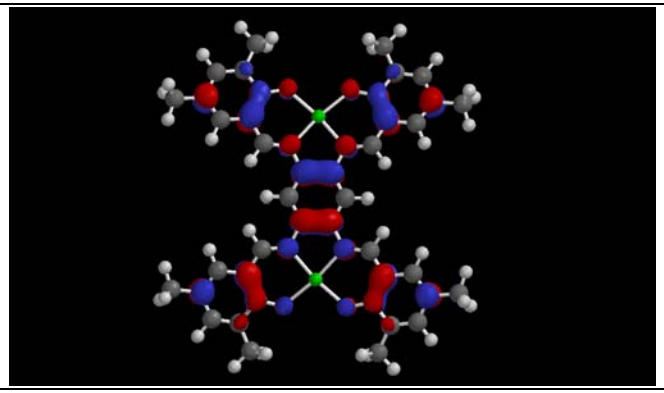
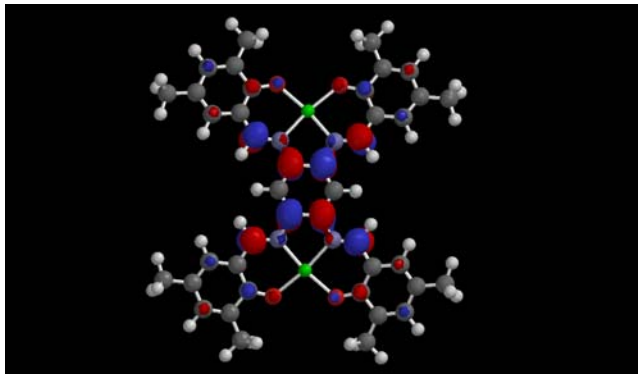
Table S2. Molecular Orbital Calculation of Dinuclear Zn(II) Salophen Complexes

	HOMO	LUMO	Energy (eV)
7a			HOMO:-7.96 LUMO:-1.48 Energy gap:6.48
7b			HOMO:-7.94 LUMO:-1.48 Energy gap:6.46
8a			HOMO:-7.91 LUMO:-1.53 Energy gap:6.38

8b			HOMO:-7.97 LUMO:-1.52 Energy gap:6.45
9a			HOMO:-7.78 LUMO:-1.49 Energy gap:6.29
9b			HOMO:-7.79 LUMO:-1.48 Energy gap:6.31

9c			HOMO:-7.75 LUMO:-1.44 Energy gap:6.31
10a			HOMO:-8.04 LUMO:-1.42 Energy gap:6.62
10c			HOMO:-8.11 LUMO:-1.36 Energy gap:6.75

11a			HOMO:-8.12 LUMO:-2.01 Energy gap:6.11
11b			HOMO:-8.07 LUMO:-1.99 Energy gap:6.08
11d			HOMO:-8.23 LUMO:-1.97 Energy gap:6.26

11e			HOMO:-7.82 LUMO:-1.85 Energy gap:5.97
12			HOMO:-8.16 LUMO:-1.79 Energy gap:6.37
13			HOMO:-7.99 LUMO:-1.72 Energy gap:6.27