Table S2. Spectroscopic and ECL properties of non-ruthenium inorganic and organometallic systems.

Complex/Reactant	Reaction Conditions	λ_{em} (nm)	λ_{ecl} (nm)	ϕ_{em}	ϕ_{ecl}	Ref
Alq_3/TPD (Cross-R)	50:50 v/v MeCN:Toluene (0.1 M $TBAPF_6$)	527	510	----------	0.09	443,[a,b]
Alq_3/$TPDF_2$ (Cross-R)	50:50 v/v MeCN:Toluene (0.1 M $TBAPF_6$)	527	510	----------	0.18	443
$Al(qs)_3$/TPD (Cross-R)	50:50 v/v MeCN:Toluene (0.1 M $TBAPF_6$)	505	510	----------	0.03	443,[b]
$Al(qs)_3$/$TPDF_2$ (Cross-R)	50:50 v/v MeCN:Toluene (0.1 M $TBAPF_6$)	505	510	----------	0.10	443,[b]
$Al(HQS)_3$/TPrA	H_2O (0.2 M KH_2PO_4)	499	499	0.06	0.002	135,[c]
BODIPY	MeCN(0.1 M $TBAPF_6$)	506		0.92		138
PM 546	MeCN(0.1 M $TBAPF_6$)	501	530	0.95		138,[m]
PM 567	MeCN(0.1 M $TBAPF_6$)	531	550	0.87	~0.009	138,[m]
PM 580	MeCN(0.1 M $TBAPF_6$)	532	555	0.85	~0.007	138,[m]
PM 597	MeCN(0.1 M $TBAPF_6$)	557	585	0.41	~0.003	138,[m]
Similar to PM 567 but containing a phenyl ring at position 8.	CH_2Cl_2 (0.1 M $TBAPF_6$)	541	541			137
Dihydroazulene/Boron Dipyrromethene Dyad, 1a	MeCN	~540		0.62		137[n]
Dihydroazulene/Boron Dipyrromethene Dyad, 1b	MeCN	~540		0.01		137[n]
Cd(II)-phen/TPrA	H_2O (0.15M NaH_2PO_4)					444
CdSe NC	CH_2Cl_2 (0.1M $TBAClO_4$)	545	~745	----------	----------	162
$Cr(bpy)_3^{2+}$	MeCN(0.1MTBAP)	730	730	----------	----------	445

$Cr(CN)_6^{3-}$	MeCN(0.1MTBAP)	800	800	-------	~3x10^{-4}	445
$Cr(bpy)_3^{3+}/S_2O_8^{2-}$	H_2O(0.1M NaCl)	727	727	0.02	0.25	446[c]
$Cr(4,4'\text{-}Me_2bpy)_3^{3+}/S_2O_8^{2-}$	H_2O(0.1M NaCl)	727	727	0.06	0.45	446[c]
$Cr(phen)_3^{3+}/S_2O_8^{2-}$	H_2O(0.1M NaCl)	727	727	0.10	0.08	446[c]
$Cr(5\text{-}Cl\text{-}phen)_3^{3+}/S_2O_8^{2-}$	H_2O(0.1M NaCl)	727	727	0.08	0.07	446[c]
$[Cu(pyridine)I]_4$	CH_2Cl_2(0.1MTBABF_4)	698	698	0.05	-------	143
$Cu(dmp)_2(PF_6)_2$/TPrA	MeCN(0.1MTBAPF_6)	519,642	-------	0.04	0.004	57[c]
$Cu(dmp)_2(PF_6)_2$/TPrA	MeCN:H_2O (50:50 v/v; 0.1 M KH_2PO_4)	519,642	-------	0.04	0.002	57[c]
$Cu(dmp)_2(PF_6)_2$/TPrA	H_2O(0.1 M KH_2PO_4)	519,642	-------	0.04	0.001	57[c]
Cu(II)-3,4(DAT)	H_2O (0.2 M KH_2PO_4)					447
Eu(dibenzoylmethide)$_3$·piperidine	MeCN(0.1MTBAClO_4)	612	------	-------	-------	448[d]
Eu(dinaphthoylmethide)$_3$·piperidine	MeCN(0.1MTBAClO_4)	610	------	-------	-------	448[d]
$Eu(TTFA)_3(phen)$	MeCN(0.05MTBABF_4)	610	------	-------	-------	143[d]
$(pipH^+)Eu(DBM)_4/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	611	611	0.09 9	0.052	449
$(TBA)Eu(DBM)_4/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	611	611	0.20	0.06	449
$(TBA)Eu(TTA)_4/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	612	612	1.01	0.006	449
$(TBA)Eu(HFAC)_4/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	611	611	0.09 5	0.01	449
$(TBA)Eu(BA)_4/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	612	612	0.13	0.02	449
$(TBA)Eu(BTA)_4/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	611	611	1.2	0.01	449
$Eu[2.2.2](NO_3)_3/S_2O_8^{2-}$	MeCN(0.1MTBAPF_6)	612	-------	0.00 04	------- -	449

Eu[2.2.1]$(NO_3)_3/S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	612	-------	------ --	------- -	449
Eu[2.2.1](DBM)$(NO_3)_2$ $/S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	612	612	0.00 02	$2x10^{-4}$	449
Eu[2.2.1](BA)$(NO_3)_2$/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	612	612	0.00 13	$5x10^{-5}$	449
Eu[2.2.1](TTA)$(NO_3)_2$/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	614	-------	0.00 11	------- -	449
Eu[2.2.1](BTA)$(NO_3)_2$/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	612	-------	0.04 6	------- -	449
Eu[2.2.1](HFAC)$(NO_3$ $)_2/S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	613	-------	0.00 14	------- -	449
Au(I)-(2,4-DAT)	H_2O (0.2 M KH_2PO_4)					450
$Ir(ppy)_3$	MeCN(0.1M $TBABF_4$)	495	-------	------ --	------- -	143
$Ir(ppy)_3$	Benzonitrile	530	530	------ --	------- -	145
$Ir(ppy)_3$	MeCN(0.1M $TBAPF_6$)	510	510	------ --	0.14	146[b]
$Ir(ppy)_3$/TPrA	MeCN (0.1 MTBAPF$_6$)	517	517	0.14	0.33	147
$Ir(ppy)_3$/TPrA	MeCN:H_2O (50:50 v/v; 0.1 M KH_2PO_4)	507, 532	517	0.10	0.004 4	147
$Ir(ppy)_3$/TPrA	H_2O (0.1 M KH_2PO_4)	507, 532	517	0.08	0.000 92	147
$Ir(ppy)_3$/2-	MeCN:dioxan e (1:1 v/v); (0.1 M	----------	517	------	0.67	153

cyanofluorene (Cross-R)	$TBAPF_6$)			--		
$Ir(ppy)_3$/4-cyano-4'-methylbiphenyl(Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	517	------ --	0.59	153
$Ir(ppy)_3$/4-cyanobiphenyl (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	517	------ --	0.62	153
$Ir(ppy)_3$/2-cyanonaphthalene (Cross-R)	MeCN :dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	517	------ --	0.29	153
$Ir(ppy)_3$/1-cyanonaphthalene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	517	------ --	0.36	153
$Ir(ppy)_3$/4-acetylbiphenyl (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	517	------ --	0.26	153
$Ir(ppy)_3$/2-acetylnaphthalene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	0.37	153
$Ir(ppy)_3$/9-cyanophenanthrene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	0.33	153

$Ir(ppy)_3$/1-acetylnaphthalene (Cross-R)	Acetonitrile:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	0.30	153
$Ir(ppy)_3$/benzophenone (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	0.25	153
$Ir(ppy)_3$/1,2-dicyanobenzene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	0.20	153
$Ir(ppy)_3$/4,4'-dicyanobiphenyl (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	0.23	153
$Ir(ppy)_3$/4-cyanobenzoic acid methyl ester (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	3.7x1 0^{-2}	153
$Ir(ppy)_3$/4-acetylbenzoic acid methyl ester (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	6.0x1 0^{-4}	153
$Ir(ppy)_3$/1,4-dicyanobenzene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	2.2x1 0^{-3}	153
$Ir(ppy)_3$/4-acetylbenzonitrile (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	4.0x1 0^{-5}	153

$Ir(ppy)_3$/4-acetylacetophenone (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	----------	~517	------ --	1.7x10^{-5}	153
$[Ir(COD)(\mu\text{-pz})]_2$	THF(0.3M $TBABF_4$)	682	694	------ --	------- -	451
$[Ir(COD)(\mu\text{-mpz})]_2$	THF(0.3M $TBABF_4$)	--------	-------	------ --	------- -	451
$[Ir(COD)(\mu\text{-dmpz})]_2$	THF(0.3M $TBABF_4$)	714	719	------ --	------- -	451
$[Ir(COD)(\mu\text{-pz})]_2/C_2O_4^{2-}$	THF(0.3M $TBABF_4$)	682	694	------ --	------- -	451
$[Ir(COD)(\mu\text{-dmpz})]_2/C_2O_4^{2-}$	THF(0.3M $TBABF_4$)	714	719	------ --	------- -	451
FIr(pic)/TPrA	MeCN (0.05 M TPrA; 0.1 M)	468; 490(sh)	498	0.1004	0.030	150
FIr(pic)/TPrA	MeCN/H_20 (0.2 M KPB; $TBAPF_6$)	467; 494(sh)	498	0.0389	0.45	150
FIr(pic)/TPrA	H_2O (0.2 M KPB)	472; 497(sh)	498	0.0048	0.00010	150
FIr(pic)/TPrA	H_2O w/ .4 mM Triton (0.2 M KPB)	471; 497(sh)	498	0.0575	0.00063	150
FIr(pic)/TPrA	H_2O w/ .8 mM Triton (0.2 M KPB)	474; 496(sh)	498	0.0766	0.00067	150
$(btp)_2Ir(acac)$/TPrA	MeCN (0.05 M TPrA; 0.1 M)	576	601	0.00204	0.28	150
$(btp)_2Ir(acac)$/TPrA	MeCN/H_20 (0.2 M KPB; $TBAPF_6$)	600	603	0.0015	0.049	150
$(btp)_2Ir(acac)$/TPrA	H_2O (0.2 M KPB)	609	----	0.0020	0.000098	150
$(btp)_2Ir(acac)$/TPrA	H_2O w/ .4 mM Triton (0.2 M KPB)	609	----	0.0050	0.00020	150
$(btp)_2Ir(acac)$/TPrA	H_2O w/ .8 mM Triton (0.2 M KPB)	609	----	0.0054	0.00033	150
$Ir(ppy)_3$/TprA	Adsorbed in					152

	PVK. 0.2 M KPB; 0.05 M TPrA					
$Ir(ppy)_3$/TprA	Adsorbed in PVK. MeCN with 0.05 M TPrA and 0.1 M Bu_4NPF_6					152
FIr(pic)/TPrA	Adsorbed in PVK. 0.2 M KPB; 0.05 M TPrA					152
FIr(pic)/TPrA	Adsorbed in PVK. MeCN with 0.05 M TPrA and 0.1 M Bu_4NPF_6					152
FIr(pic)/TPrA	Adsorbed in Nafion. 0.2 M KPB; 0.05 M TPrA					152
$(btp)_2Ir(acac)$/TPrA	Adsorbed in PVK. 0.2 M KPB; 0.05 M TPrA					152
$(btp)_2Ir(acac)$/TPrA	Adsorbed in PVK. MeCN with 0.05 M TPrA and 0.1 M Bu_4NPF_6					152
$[(ppy)_2Ir(bpy)]^+$/TPrA	MeCN(0.1M $TBAPF_6$)	606	606	0.06	2	156[p]
$[(ppy)_2Ir(phen)]^+$/TprA	MeCN(0.1M $TBAPF_6$)	599	606	0.14	4	156[p]
$(pq)_2Ir(acac)$/TPrA	MeCN(0.1M $TBAPF_6$)	589	609	0.10	77	156[p]
$(pq)_2Ir(tmd)$/TPrA	MeCN(0.1M $TBAPF_6$)	593	615	0.10	49	156[p]
$Ir(245F_3PBI)_2(pic)$/ dicyanobiphenyl (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	481	481	0.30	0.20	154
$Ir(245F_3PBI)_2(acac)$ / dicyanobiphenyl (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	488	488	0.12	0.12	154
$Ir(24F_2PBI)_2(pic)$/	MeCN:dioxan	481	481	0.38	0.37	154

dicyanobiphenyl (Cross-R)	e (1:1 v/v); (0.1 M $TBAPF_6$)					
$Ir(24F_2PBI)_2(acac)$/ dicyanobiphenyl (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	493	493	0.28	0.21	154
$Ir(25F_2PBI)_2(pic)$/ dicyanobiphenyl (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	429	429	0.51	0.29	154
$Ir(25F_2PBI)_2(acac)$/ dicyanobiphenyl (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	502	502	0.31	0.27	154
$Ir(35F_2PBI)_2(pic)$/ dicyanobiphenyl (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	501	501	0.59	0.43	154
$Ir(35F_2PBI)_2(acac)$/ dicyanobiphenyl (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	512	512	0.48	0.46	154
$(F\text{-pbt})_2Ir(acac)$/1,4-dicyanonaphthalene	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	545	545	0.54	0.30	155
$(F\text{-pbt})_2Ir(acac)$/4-acetylbenzonitrile (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	545	545	0.54	0.37	155
$(CH_3O\text{-pbt})_2Ir(acac)$/1,4-dicaynobenzene (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	548	548	0.46	0.38	155
$(CH_3\text{-pbt})_2Ir(acac)$/1,4-dicaynobenzene (Cross-R)	MeCN:dioxan e (1:1 v/v); (0.1 M $TBAPF_6$)	560	560	0.41	0.22	155
$(F_2\text{-pbt})_2Ir(acac)$/1,4-	MeCN:dioxan	562	562	0.46	0.35	155

dicyanonaphthalene (Cross-R)	e (1:1 v/v); (0.1 M $TBAPF_6$)					
$(pbt)_2Ir(acac)$/1,4-dicyanonaphthalene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	566	566	0.44	0.27	155
$(pbt)_2Ir(acac)$/1,4-dicaynobenzene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	566	566	0.44	0.32	155
$(CF_3\text{-pbt})_2Ir(acac)$/1,4-dicyanonaphthalene (Cross-R)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)	576	576	0.32	0.29	155
$IrL_2(acac)$/aromatic nitriles (Cross-R) (L = 2-phenylbenzothiazole ligands)	MeCN:dioxane (1:1 v/v); (0.1 M $TBAPF_6$)					155
Hg-DALM/TPrA	H_2O (0.15 M NaH_2PO_4)					452-453
$Mo_6Cl_{14}^{2-}$	MeCN(0.1M TBAP)	700	700	0.19	-------	454
$Mo_6Cl_{14}^{-}/D^{-}$ (Cross-R)	CH_2Cl_2 (0.1M TBAP)	~700	~700	------	-------	455-458[e]
$Mo_6Cl_{14}^{3-}/A^{+}$ (Cross-R)	CH_2Cl_2 (0.1M TBAP)	~700	~700	------	-------	455-458[f]
$Mo_2Cl_4(PMe_3)_4$	THF(0.1M $TBABF_4$)	680	680	0.13	0.002	459
$Mo_2Cl_4(PMe_3)_4/S_2O_8^{2-}$	THF(0.1M $TBABF_4$)	680	680	0.13	-------	459
$Mo_2Cl_4(PMe_3)_4/C_2O_4^{-}$	THF(0.1M $TBABF_4$)	680	-------	0.13	-------	459
$Os(bpy)_3^{2+}$	MeCN	724	720	0.00462	-------	460
$Os(bpy)_2(diphos)^{2+}$	MeCN	612	610	0.0550	~0.7	460
$Os(bpy)_2(dppene)^{2+}$	MeCN	605	606	0.0699	-------	460
$Os(bpy)_2(DMSO)_2^{2+}$	MeCN	575	-------	------	-------	460
$Os(bpy)_2dpae^{2+}$	MeCN	632	633	------	-------	460

$Os(bpz)_3^{2+}$	MeCN	700	700	-------	-------	461
$Os(phen)_3^{2+}$	DMF	690	691	0.0159	-------	460
$Os(phen)_3^{2+}/S_2O_8^{2-}$	MeCN	-------	740	0.32	0.40	158
$Os(phen)_2(diphos)^{2+}$	MeCN	601	600	0.138	-------	460
$Os(phen)_2(dppene)^{2+}$	MeCN	597	599	0.239	-------	460
$Os(phen)_2dpae^{2+}$	MeCN	622	-------	0.121	-------	460
$Os(bpy)_2(dppene)^{2+}$/ TPrA	$CH_3CN:H_2O$ (50:50 v/v)	368	585	0.088	0.95	462
$Os(bpy)_2(dppene)^{2+}$ / TPrA	H_2O (0.2 M KH_2PO_4)	368	589	0.157	2.0	462[c]
[Os(4,4'-distyryl-2,2'-bipyridine)$_2$(bis-1,2-phenylphoninoethane)] $^{2+}$ polymer	CH_3CN ($TBAClO_4$)	635	635	-------	-------	159
Pd(TPP)	CH_2Cl_2 (0.1 M $TBAPF_6$)	700	700	--------	--------	463
Pt(TPP)	CH_2Cl_2 (0.1 M $TBAPF_6$)	654	656	--------	--------	463
$Pt_2(P_2H_2O_5)_4^{4-}$	MeCN (0.1M $TBABF_4$)	517	517	--------	--------	464
$Pt_2(P_2H_2O_5)_4^{4-}/Bu_4N^+$	MeCN (0.1M $TBABF_4$)	512	512	--------	--------	465
$Pt(thpy)_2$	DMF(0.1 M $TBAPF_6$)	580	580	1.2	0.005	466
$Pt(thpy)_2/S_2O_8^{2-}$	DMF(0.1 M $TBAPF_6$)	580	-------	----------	----------	466
$Pt(q)_2$	MeCN(0.005 M$TBABF_4$)	650	>530	0.01	-------	143
$Pt_2(dba)_3$	CH_2Cl_2(0.1M $TBAPF_6$)	782	~780	0.95	-------	467[g]
$Pt_3(tbaa)_3$	CH_2Cl_2(0.1M $TBAPF_6$)	782	~780	1.05	-------	467[g]
$Pt_2(dba)_3$	CH_2Cl_2(0.1M $TBAPF_6$)	726	-------	0.29	-------	467[g]
$Pt_3(tbaa)_3$	CH_2Cl_2(0.1M $TBAPF_6$)	724	-------	0.28	-------	467[g]
Pt(OEP)	CH_2Cl_2(0.1M $TBAPF_6$)	619	619	--------	0.02	146
$Re(CO)_3Cl(phen)$	MeCN(0.1 M $TBAClO_4$)	598	598	--------	--------	468

$Re(CO)_3Cl$(4,7-diphenylphen)	MeCN(0.1 M $TBAClO_4$)	610	610	----------	----------	468
$Re(CO)_3Cl$(phen)/ THPO (Cross-R)	MeCN(0.1M $TBABF_4$)	610	610	----------	----------	143, 469
$Re(CO)_3Cl$(phen)	MeCN(0.1M $TBAPF_6$)	601	601	0.0026	6.4×10^{-4}	470
$Re(CO)_3Cl$(2,9-Me_2phen)	MeCN(0.1M $TBAPF_6$)	595	595	0.012	5.1×10^{-4}	470
$Re(CO)_3Cl$(5,6-Me_2phen)	MeCN(0.1M $TBAPF_6$)	599	599	0.022	4.2×10^{-4}	470
$Re(CO)_3Cl$(4,7-Me_2phen)	MeCN(0.1M $TBAPF_6$)	588	588	0.044	0.0011	470
$Re(CO)_3Cl$(3,4,7,8-Me_4phen)	MeCN(0.1M $TBAPF_6$)	599	599	0.0044	3.1×10^{-5}	470
$Re(CO)_3Cl$(bpy)	MeCN(0.1M $TBAPF_6$)	609	609	0.023	2.9×10^{-4}	470
$Re(CO)_3Cl$(4,4'-Me_2bpy)	MeCN(0.1M $TBAPF_6$)	599	599	0.017	6.9×10^{-4}	470
$Re(CO)_3Cl$(phen)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	601	601	0.0026	0.0011	470[c]
$Re(CO)_3Cl$(2,9-Me_2phen)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	595	595	0.012	0.0012	470[c]
$Re(CO)_3Cl$(5,6-Me_2phen)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	599	599	0.022	0.0054	470[c]
$Re(CO)_3Cl$(4,7-Me_2phen)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	588	588	0.044	0.030	470[c]
$Re(CO)_3Cl$(3,4,7,8-Me_4phen)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	599	599	0.0044	0.0049	470[c]
$Re(CO)_3Cl$(bpy)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	609	609	0.023	0.0031	470[c]
$Re(CO)_3Cl$(4,4'-Me_2bpy)/ $S_2O_8^{2-}$	MeCN(0.1M $TBAPF_6$)	599	599	0.017	0.0043	470[c]
$Re(CO)_3Cl$(phen)/ TPrA	MeCN(0.1M $TBAPF_6$)	601	601	0.0026	0.087	470[c]

$Re(CO)_3Cl(2,9\text{-}Me_2phen)$/ TPrA	MeCN(0.1M $TBAPF_6$)	595	595	0.012	0.12	470[c]
$Re(CO)_3Cl(5,6\text{-}Me_2phen)$/ TPrA	MeCN(0.1M $TBAPF_6$)	599	599	0.022	0.12	470[c]
$Re(CO)_3Cl(4,7\text{-}Me_2phen)$/ TPrA	MeCN(0.1M $TBAPF_6$)	588	588	0.044	0.22	470[c]
$Re(CO)_3Cl(3,4,7,8\text{-}Me_4phen)$/ TPrA	MeCN(0.1M $TBAPF_6$)	599	599	0.0044	0.0027	470[c]
$Re(CO)_3Cl(bpy)$/ TPrA	MeCN(0.1M $TBAPF_6$)	609	609	0.023	0.52	470[c]
$Re(CO)_3Cl(4,4'\text{-}Me_2bpy)$/ TPrA	MeCN(0.1M $TBAPF_6$)	599	599	0.017	0.40	470[c]
$^1SiPc(OR)_2$	CH_2Cl_2 (0.1M $TBAPF_6$)	~684	725	----------	----------	471
$^1SiNc(OR)_2$	CH_2Cl_2 (0.1M $TBAPF_6$)	~792	828	----------	----------	471
$^1RO(SiPcO)_2R$	CH_2Cl_2 (0.1M $TBAPF_6$)	--------	-------	----------	----------	471
Si-NC	DMF & MeCN (0.1 M $THAClO_4$)	420	640	----------	----------	161
Ag^+-DALM	H_2O (0.15 M KH_2PO_4)					472
Ag(I)-HDEA	H_2O (KOH-KCl, pH = 12.8)					473
$Tb(TTFA)_3(phen)$	MeCN(0.05M $TBABF_4$)	565	-------	----------	----------	143[d]
$Tb(TTFA)_4^-$	MeCN(0.05M $TBABF_4$)	565	-------	----------	----------	143[d]
Tl-tunichrome/TPrA	H_2O (0.15 M KH_2PO_4)					452
$W_6X_8Y_6^{2-}$ (X,Y = Cl,Br,I; X=Cl, Y-Br; X-I, Y=Br)	MeCN(0.1M TBAP)					458

Notes: Ligand abbreviations are listed at the end of the article in section 6. Coreactants are listed after the backslash (e.g., $Ru(bpy)_3^{2+}$/TPrA where TPrA is the coreactant). If no coreactant is listed then ECL was generated via annihilation. In certain instances annihilation ECL was generated using cross-reactions between two different species (e.g., equations 17 - 20). In those cases the cross-reactant is listed after the backslash and the reaction identified with (Cross-R). The spectroscopic and ECL data listed was either

reported directly in the cited paper, or was extrapolated from data. In those instances where no ECL spectra and/or efficiencies were reported only the compound, conditions and reference are listed. Photoluminescence efficiencies (ϕ_{em}) and annihilation ECL efficiencies (ϕ_{em}) are relative to $Ru(bpy)_3^{2+}$ at 0.062 and 0.05, respectively, unless otherwise noted. Coreactant ECL efficiencies where TPrA is the coreactant are relative to $Ru(bpy)_3^{2+}$/TPrA at 1.0 unless otherwise noted. a) Volts vs Fc/Fc^+ (0.631 V vs NHE). b) Relative to diphenylanthracene (ϕ_{ecl} = 6.3%). c) Relative ECL efficiency with respect to $Ru(bpy)_3^{2+}$/Coreactant (ϕ_{ecl} = 1). d) weak ECL such that no spectrum was obtained. e) ECL generated via cross-reaction between $Mo_6Cl_{14}^-$ and electroactive donor species (D^-; nitroaromatic radical anions). f) ECL generated via cross reaction between $Mo_6Cl_{14}^{3-}$ and electroactive acceptor species (A^+; aromatic amine radical cations). g) relative to $Cr(bpy)_3(ClO_4)_2$. h) assigned a value of 1.0 for comparison purposes. i) set to 1.0 for comparison to CE-bpy in MeCN. Relative ϕ_{ecl} vs $Ru(bpy)_3^{2+}$/TPrA not reported. j) relative to CE-bpy in H_2O (ϕ_{ecl} = 1). k) Set to 1.0 for comparison with Den-8-Ru. l) relative to $(bpy)_2Ru(bpy\text{-}O\text{-}C_8)^{2+}$ at 1.0. l) [SiPc(OR)$_2$] = bis(tri-*n*-hexylsiloxy)(2,3-phthalocyaninato)silicon; RO(SiPcO)$_2$R = dimer of [SiPc(OR)$_2$]; [SiNc(OR)$_2$] = bis(tri-*n*-hexylsiloxy)(2,3-naphthalocyaninato)silicon. m), For Boron complexes, ref "51", ϕ_{em} relative to PM 567 as a standard (0.87 in MeCN). n) relative to fluorescine 27 in 0.1 N NaOH (0.90 ± 0.03). O) ϕ_{em} relative to $Ru(bpy)_3^{2+}$ in MeCN (0.067). p) ϕ_{ecl} relative to $Ru(bpy)_3^{2+}$/TPra (1.0) and ϕ_{em} values obtained in thoroughly degassed dichloromethane solution using Rhodamine 6G in ethanol (Φ_{em}=0.95) as a standard.