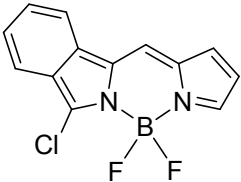
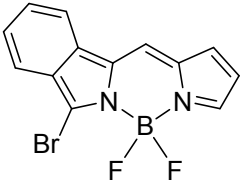
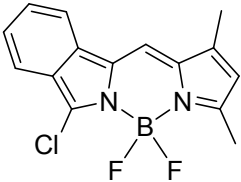
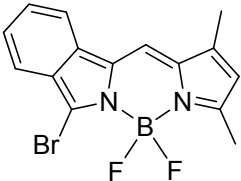


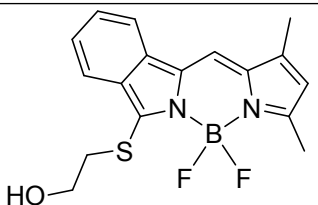
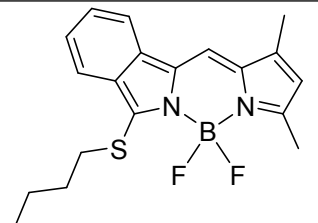
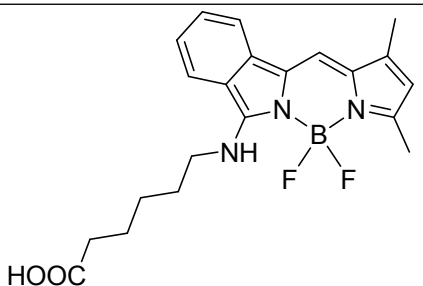
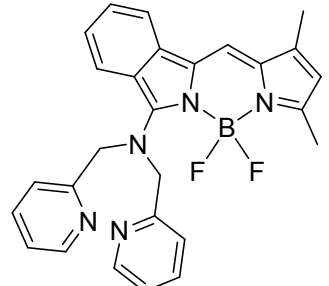
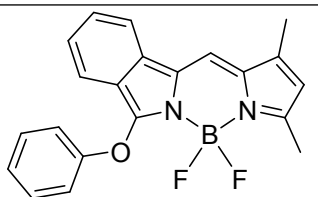
Supporting information

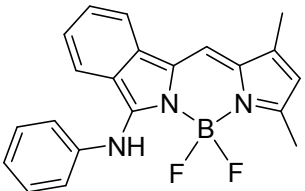
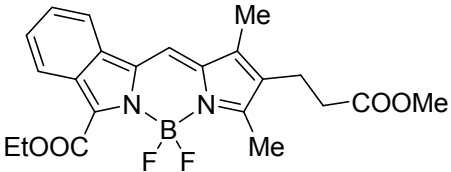
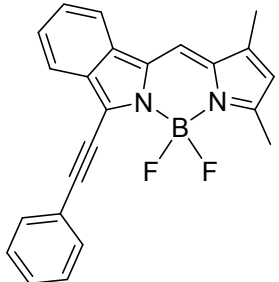
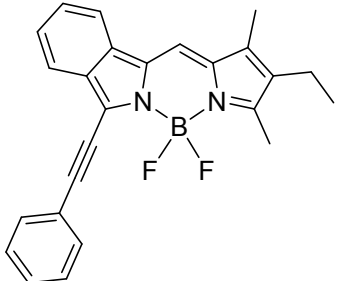
Recent advances in the synthesis of [a]-benzo-fused BODIPY fluorophores

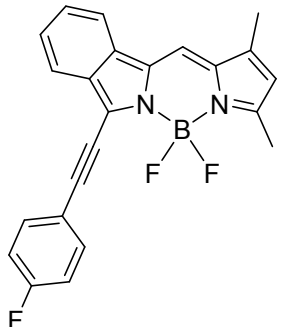
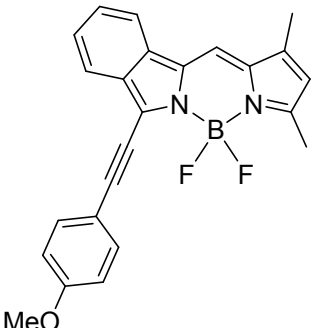
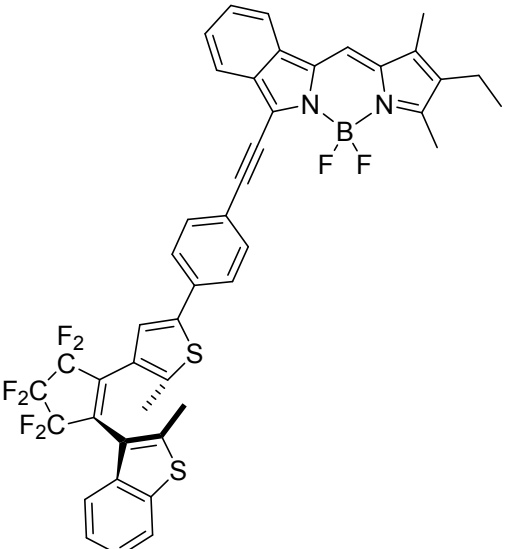
Ludivine Jean-Gérard,* William Vasseur, Bruno Andrioletti*

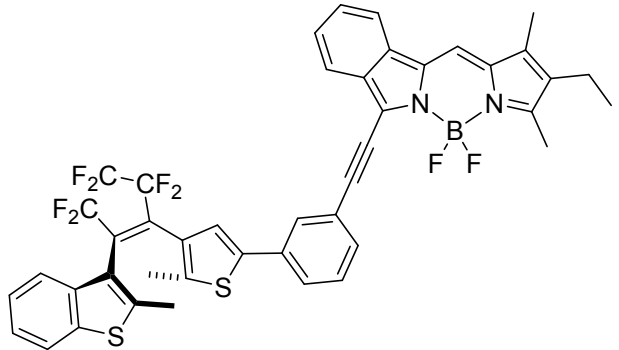
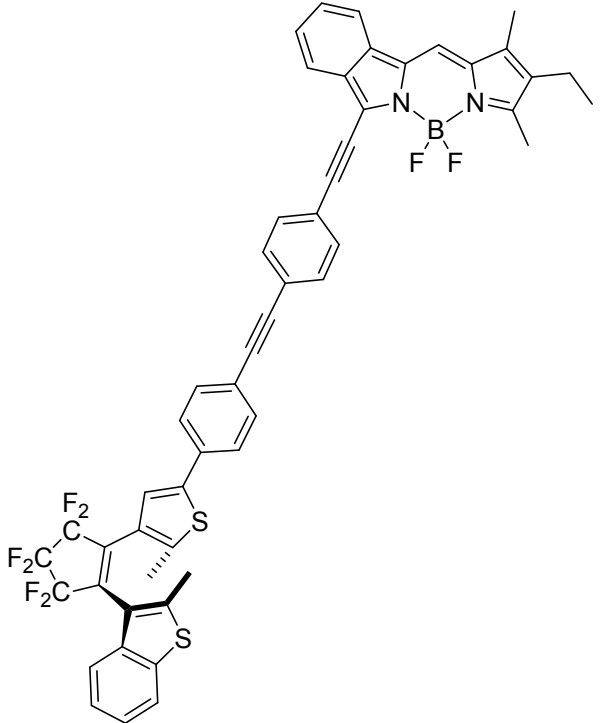
Univ Lyon, Université Claude Bernard Lyon 1, INSA-Lyon, CPE-Lyon, ICBMS-UMR CNRS 5246, Campus Lyon-Tech la Doua, Bât. Lederer, 43 Boulevard du 11 Novembre 1918, 69622 Villeurbanne, France.

	Solvent	λ_{abs} (nm)	λ_{em} (nm)	ϵ ($\times 10^5 \text{ M}^{-1} \text{ cm}^{-1}$)	ϕ	Stokes shift Δ_S $\Delta_S = (1/\lambda_{\text{abs}} - 1/\lambda_{\text{em}})$ (cm^{-1})*	Ref
ISOINDOLE-BODIPYS							
	CH ₂ Cl ₂	542	562	0.478	0.62 (ex 520 nm)	657	65
	CH ₂ Cl ₂	542	562	0.692	0.66 (ex 520 nm)	657	65
	CH ₂ Cl ₂	562	572	0.501	0.62 (ex 520 nm)	311	65
	CH ₂ Cl ₂	562	573	1.259	0.63 (ex 520 nm)	342	65

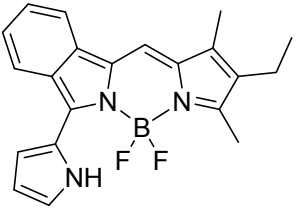
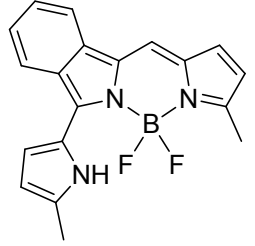
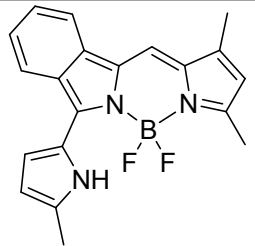
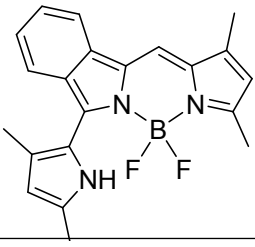
	CH ₂ Cl ₂	574	588	0.724	0.39 (ex 520 nm)	415	65
	CH ₂ Cl ₂	576	591	0.407	0.49 (ex 520 nm)	441	65
	CH ₂ Cl ₂	518	559	0.162	0.20 (ex 490 nm)	1416	65
	CH ₂ Cl ₂	548	586	0.158	0.61 (ex 520 nm)	1183	65
	CH ₂ Cl ₂	546	564	0.741	0.65 (ex 520 nm)	585	65

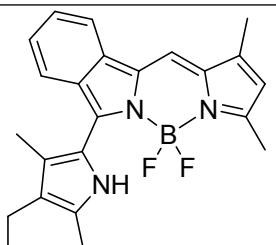
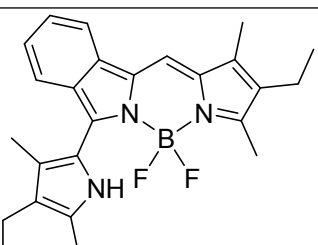
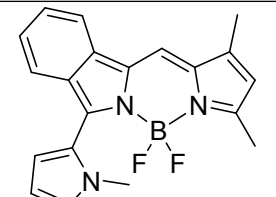
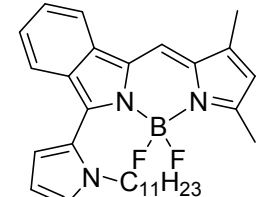
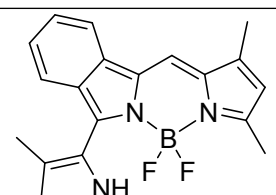
	CH ₂ Cl ₂	526	583	0.257	0.61 (ex 520 nm)	1859	65
	CH ₂ Cl ₂	589	596 (ex 530 nm)	0.149	0.99	199	57
	MeOH	582	591 (ex 530 nm)	0.167	0.77	262	
	toluene	587	600 (ex 530 nm)	0.127	0.96	369	
	CH ₂ Cl ₂	612	629	0.490	0.89 (ex 580 nm)	442	65
	CH ₂ Cl ₂	624	631	0.95	0.66	177.8	74a

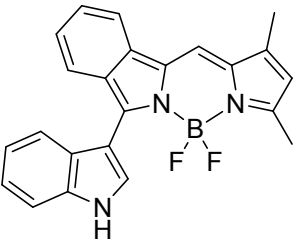
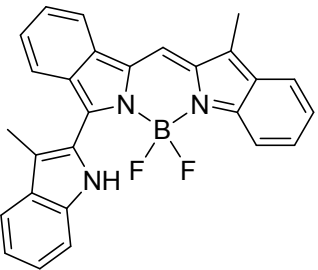
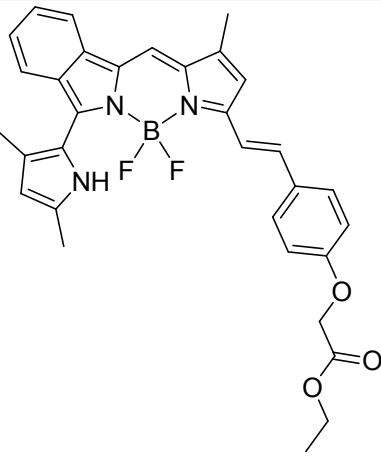
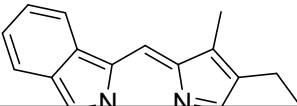
	CH ₂ Cl ₂	612	625	0.588	0.90 (ex 580 nm)	340	65
	CH ₂ Cl ₂	616	633	0.339	0.63 (ex 580 nm)	436	65
	CH ₂ Cl ₂	636	644	1.08	0.63	195.3	74a

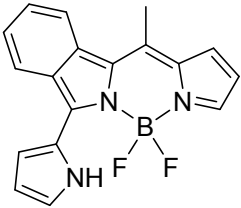
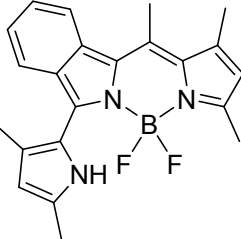
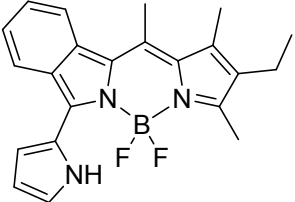
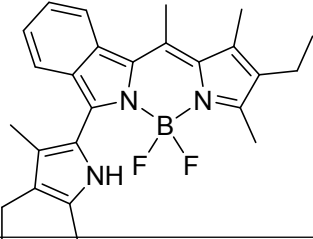
	CH ₂ Cl ₂	627	633	0.70	0.67	151	74b
	CH ₂ Cl ₂	637	644	0.77	0.66	171	74b

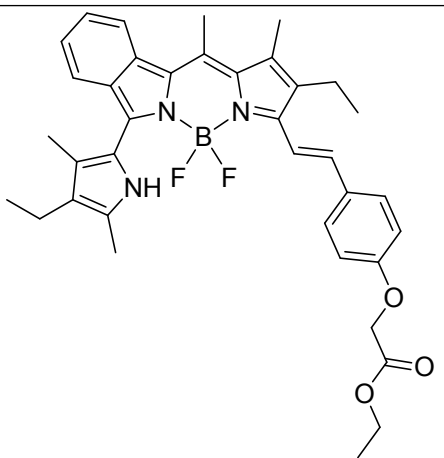
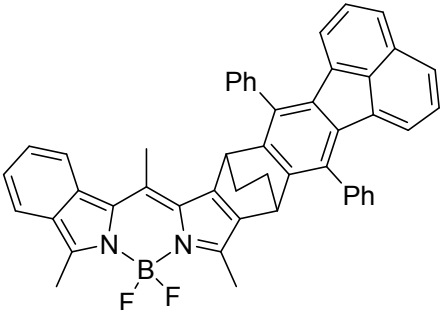
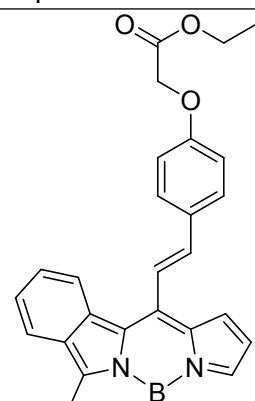
	CH ₂ Cl ₂	626	633	1.26	0.66	288	74b
	CH ₂ Cl ₂	618	631	0.141	0.44 (ex 580 nm)	333	65
	CH ₂ Cl ₂	612	628	0.933	0.80 (ex 580 nm)	416	65
	CH ₂ Cl ₂	570	599	0.447	0.80	849	66, 68
	hexane	574	588	0.776	0.83	415	68
	toluene	577	600	0.525	0.81	664	68
	THF	571	596	0.479	0.82	735	68
	MeCN	561	594	0.407	0.80	990	68
	MeOH	565	592	0.468	0.76	807	68
	CH ₂ Cl ₂	602	621	0.851	0.87	508	66,

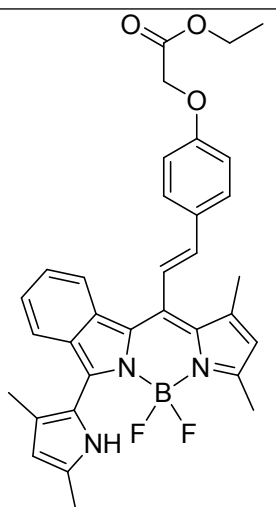
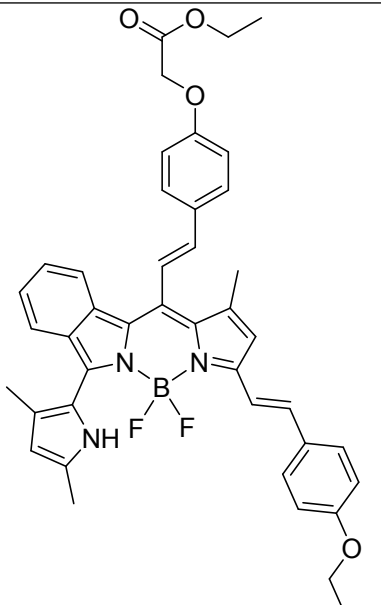
							68
	hexane	601	617	1.175	0.87	431	68
	toluene	606	627	0.933	0.78	553	68
	THF	599	620	0.912	0.80	565	68
	MeCN	594	618	0.776	0.85	654	68
	MeOH	595	618	0.912	0.90	625	68
	CH ₂ Cl ₂	616	634	0.282	0.66	461	68
	hexane	614	626	0.363	0.82	312	68
	toluene	620	635	0.288	0.72	381	68
	THF	613	631	0.331	0.71	465	68
	MeCN	608	628	0.275	0.74	524	68
	MeOH	609	628	0.288	0.65	497	68
	CH ₂ Cl ₂	600	624	0.288	0.79	641	66, 68
	hexane	602	613	0.229	0.83	298	68
	toluene	606	623	0.355	0.78	450	68
	THF	599	621	0.380	0.81	591	68
	MeCN	592	620	0.269	0.80	763	68
	MeOH	595	616	0.174	0.83	573	68
	CH ₂ Cl ₂	608	629	0.617	0.89	549	68
	hexane	607	618	0.812	0.91	293	68
	toluene	612	629	0.759	0.83	442	68
	THF	607	625	0.692	0.82	474	68
	MeCN	600	623	0.603	0.84	615	68
	MeOH	602	620	0.708	0.83	482	68
	CH ₂ Cl ₂	609	631	0.741	0.61	573	66, 68
	hexane	610	626	1.023	0.85	419	68
	toluene	616	633	0.832	0.81	436	68
	THF	609	627	0.776	0.06	471	68
	MeCN	601	624	0.692	0.02	613	68

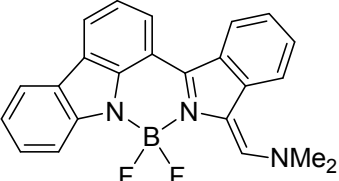
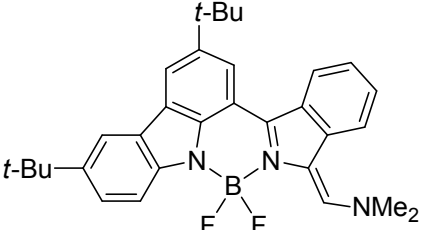
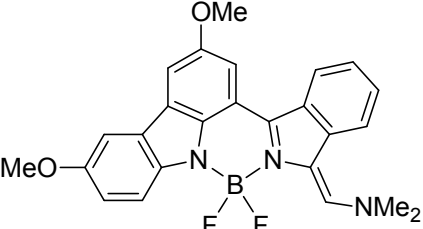
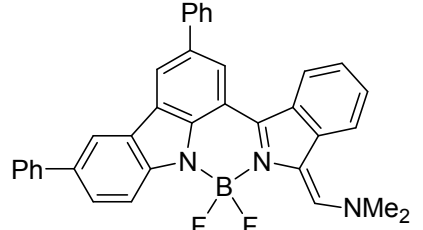
	MeOH	603	622	0.759	0.03	507	68
	CH ₂ Cl ₂	616	640	0.891	0.86	609	68
	hexane	616	630	1.380	0.99	361	68
	toluene	623	642	1.047	0.93	475	68
	THF	615	635	1.023	0.07	512	68
	MeCN	607	632	0.851	0.02	652	68
	MeOH	610	631	0.955	0.04	546	68
	CH ₂ Cl ₂	629	650	0.813	0.73	514	66, 68
	hexane	629	641	1.072	0.86	298	68
	toluene	636	651	0.871	0.75	362	68
	THF	629	644	0.813	0.09	370	68
	MeCN	620	643	0.661	0.03	577	68
	MeOH	623	642	0.724	0.04	475	68
	CH ₂ Cl ₂	585	611	0.676	0.99	727	68
	hexane	586	605	0.794	0.96	536	68
	toluene	591	613	0.708	0.94	607	68
	THF	585	608	0.724	0.96	647	68
	MeCN	580	606	0.661	0.97	740	68
	MeOH	581	605	0.692	0.98	683	68
	CH ₂ Cl ₂	584	611	0.525	0.99	757	68
	hexane	583	605	0.575	0.99	624	68
	toluene	590	613	0.513	0.99	636	68
	THF	584	610	0.513	0.98	730	68
	MeCN	577	606	0.501	0.99	829	68
	MeOH	579	607	0.525	0.96	797	68
	CH ₂ Cl ₂	608	631	0.794	0.85	600	68
	hexane	610	626	1.000	0.87	419	68
	toluene	615	636	0.891	0.79	537	68
	THF	604	628	0.759	0.16	633	68

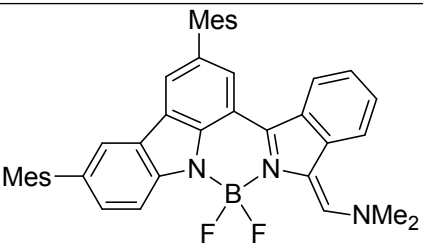
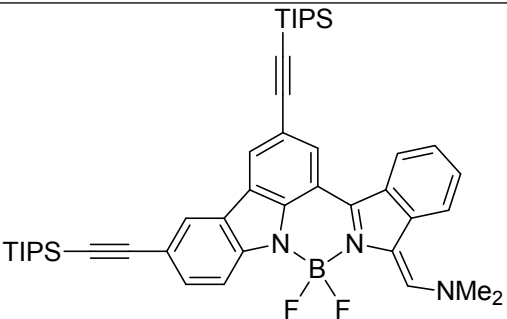
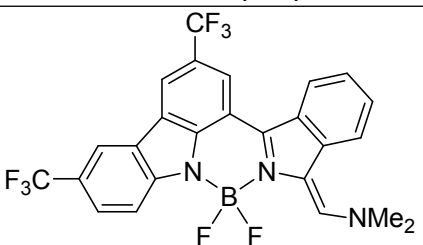
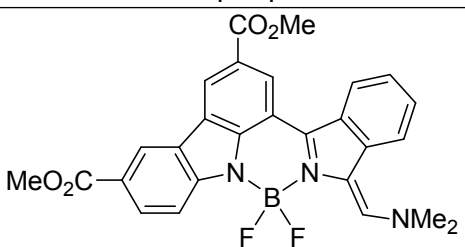
	MeCN	596	623	0.724	0.03	727	68
	MeOH	598	624	0.776	0.02	697	68
	CH ₂ Cl ₂	581	606	0.776	0.98	710	68
	hexane	580	598	0.871	0.99	519	68
	toluene	587	608	0.851	0.96	588	68
	THF	583	606	0.794	0.97	651	68
	MeCN	575	602	0.708	0.96	780	68
	MeOH	579	603	0.776	0.96	687	68
	CH ₂ Cl ₂	611	648	0.977	0.08	935	66, 68
	hexane	623	644	0.427	0.14	523	68
	toluene	625	656	0.741	0.14	756	68
	THF	608	646	0.724	0.04	967	68
	MeCN	591	637	0.468	0.04	1222	68
	MeOH	598	643	0.537	0.03	1170	68
	CH ₂ Cl ₂	680	705	0.871	0.75	521	66, 68
	hexane	679	693	0.457	0.73	298	68
	toluene	687	707	0.589	0.69	412	68
	THF	679	703	0.513	0.34	503	68
	MeCN	670	699	0.427	0.30	619	68
	MeOH	671	697	0.251	0.08	556	68
	CH ₂ Cl ₂	725	770	0.631	0.13	806	68
	hexane	719	740	0.891	0.27	395	68

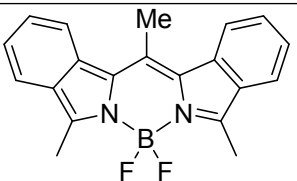
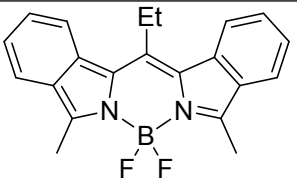
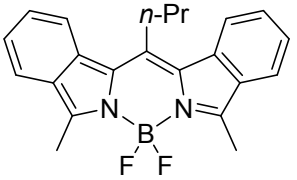
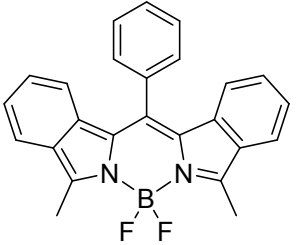
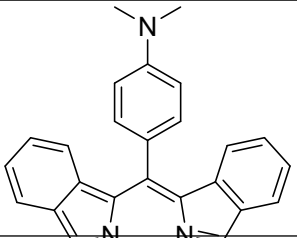
	toluene	730	760	0.724	0.16	541	68
	THF	720	764	0.708	0.11	800	68
	MeCN	713	805	0.589	0.05	1603	68
	MeOH	712	770	0.63	0.05	1058	68
	CH ₂ Cl ₂	563	592	0.759	0.91	870	66, 68
	hexane	566	582	1.047	0.65	486	68
	toluene	570	594	0.646	0.72	709	68
	THF	564	589	0.708	0.54	753	68
	MeCN	555	586	0.513	0.64	953	68
	MeOH	558	585	0.355	0.69	827	68
	CH ₂ Cl ₂	599	625	0.912	0.80	694	66, 68
	hexane	601	619	1.862	0.86	484	68
	toluene	605	635	1.122	0.82	781	68
	THF	599	627	1.862	0.19	746	68
	MeCN	590	623	0.977	0.05	898	68
	MeOH	593	622	0.891	0.07	786	68
	CH ₂ Cl ₂	605	629	0.708	0.92	631	68
	hexane	604	622	0.813	0.93	479	68
	toluene	609	630	0.372	0.81	547	68
	THF	604	627	0.295	0.88	607	68
	MeCN	597	623	0.339	0.88	599	68
	MeOH	599	622	0.251	0.97	617	68
	CH ₂ Cl ₂	619	645	1.175	0.72	651	66, 68
	hexane	620	636	1.380	0.93	406	68
	toluene	625	646	1.122	0.71	520	68
	THF	618	656	1.148	0.27	937	68
	MeCN	610	652	0.933	0.21	1056	68

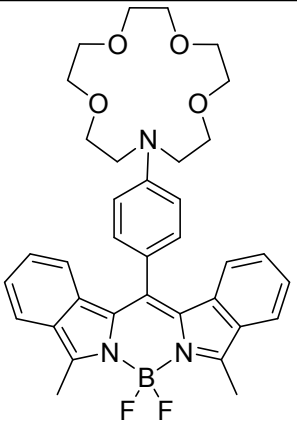
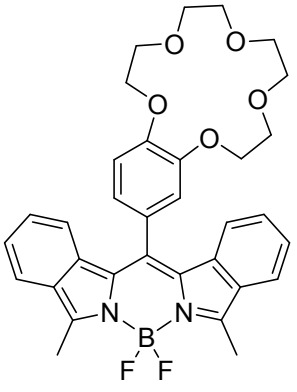
	MeOH	613	650	1.023	0.21	929	68
	CH ₂ Cl ₂	675	714	0.575	0.68	809	66, 68
	hexane	677	698	0.214	0.74	444	68
	toluene	682	709	0.525	0.71	558	68
	THF	675	709	0.490	0.28	710	68
	MeCN	664	707	0.447	0.09	916	68
	MeOH	666	711	0.389	0.20	950	68
	CH ₂ Cl ₂	552	573	0.724	1.0 (ex 513 nm)		29
	CH ₂ Cl ₂	585	631	0.427	0.003	1246	66, 68
	hexane	587	630	0.151	0.009	1163	68
	toluene	592	637	0.437	0.004	1193	68
	THF	586	625	0.513	0.003	1065	68
	MeCN	577	617	0.661	0.003	1124	68

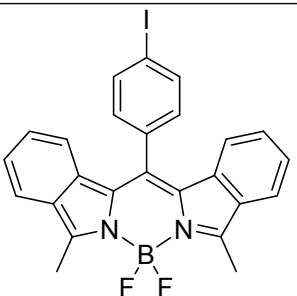
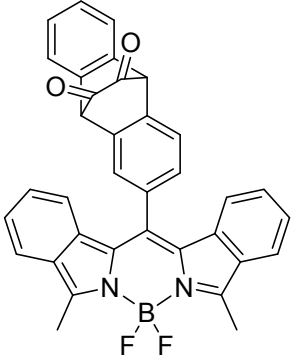
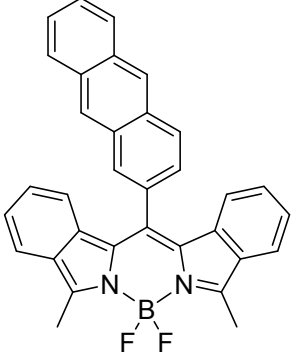
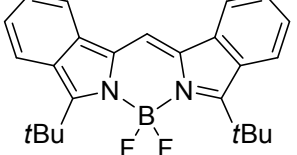
	MeOH	580	624	0.427	0.005	1216	68
	CH ₂ Cl ₂	608	687	0.083	0.01	1891	66, 68
	hexane	608	679	0.741	0.013	1720	68
	toluene	614	690	0.813	0.012	1794	68
	THF	608	684	0.676	0.012	1827	68
	MeCN	602	681	0.692	0.005	1927	68
	MeOH	603	680	0.661	0.002	1878	68
	CH ₂ Cl ₂	676	733	1.445	0.012	989	66
						1150	68
	hexane	674	731	1.096	0.04	1157	68
	toluene	683	735	1.023	0.009	1036	68
	THF	676	730	1.445	0.005	1094	68
	MeCN	667	727	1.047	0.009	1237	68

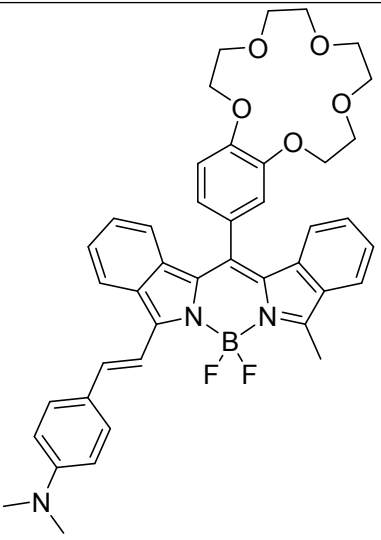
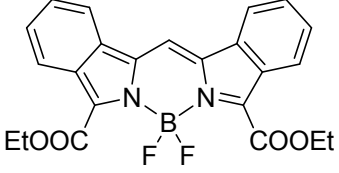
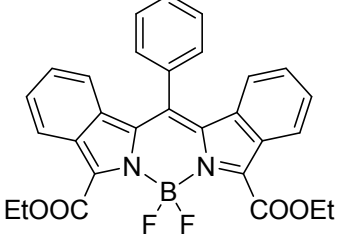
	MeOH	668	726	1.148	0.002	1196	68
	CH ₂ Cl ₂	292, 390, 482	528		low	1810	69
	CH ₂ Cl ₂	292, 398, 493	561		low	2460	69
	CH ₂ Cl ₂	304, 409, 508	650		low	4300	69
	CH ₂ Cl ₂	287, 401, 495	559		low	2310	69

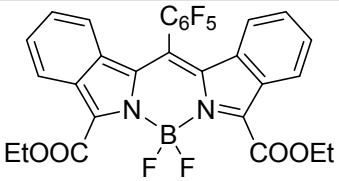
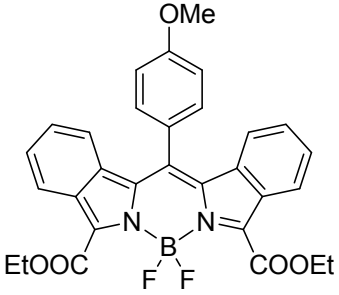
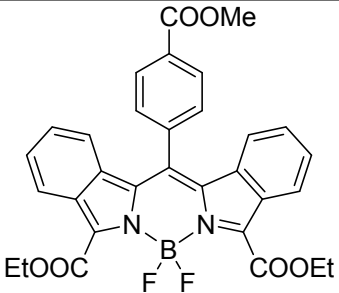
	CH ₂ Cl ₂	293, 398, 492	555		low	2310	69
	CH ₂ Cl ₂	289, 400, 492	571		low	2810	69
	CH ₂ Cl ₂	291, 375, 448, 475	508		low	1370	69
	CH ₂ Cl ₂	278, 296, 381, 472	519		low	1920	69
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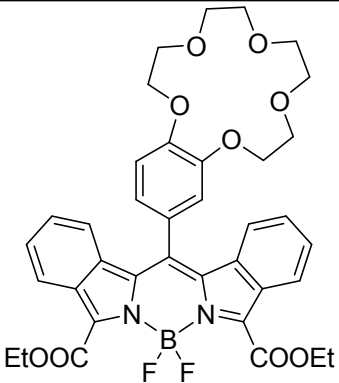
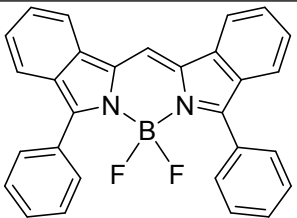
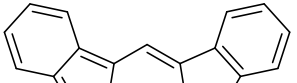
		558, 603 (CH ₂ Cl ₂)	609	0.331, 1.55 (CHCl ₃)	0.28 (EtOH)	1501*, 163*	24
		557, 601 (CH ₂ Cl ₂)	608	0.316, 1.445 (CHCl ₃)	0.33 (EtOH)	1506*, 192*	24
		557, 602 (CH ₂ Cl ₂)	608	0.251, 1.32 (CHCl ₃)	0.36 (EtOH)	1506*, 164*	24
	hexane	599	605		0.91	166*	26
	Bu ₂ O	600	607		0.97	192*	
	Et ₂ O	598	605		0.98	193*	
	ethyl acetate	598	606		0.93	221*	
	THF	600	609		0.99	246*	
	cyclohexanone	602	611		0.93	245*	
	acetone	598	606		0.87	221*	
	propionitrile	598	607		0.84	248*	
	MeCN	597	606		0.87	249*	
	MeOH	597	606		0.83	249*	
	hexane	599	605		0.90	166*	26
	Bu ₂ O	600	607		0.89	192*	
	Et ₂ O	598	604		0.87	166*	
	ethyl acetate	598	605		0.85	193*	
	THF	601	608		0.88	192*	
	cyclohex	602	610		0.51	218*	

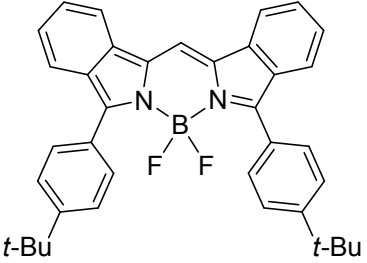
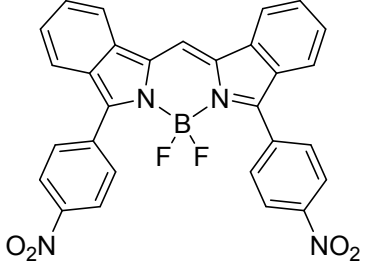
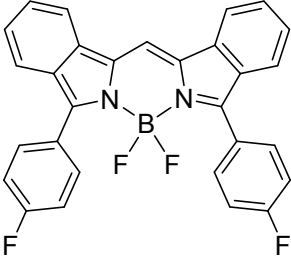
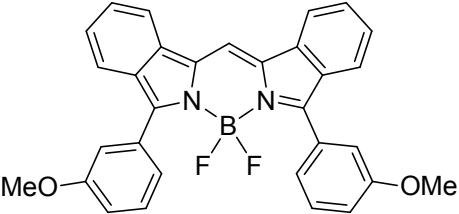
	anone					
	acetone	598	606		0.14	221*
	propioni trile	598	606		0.091	221*
	MeCN	597	605		0.022	221*
	MeOH	597	606		0.13	249*
	hexane	599	605		0.74	166*
	Bu ₂ O	601	607		0.84	164*
	Et ₂ O	598	605		0.92	193*
	ethyl acetate	598	606		0.92	221*
	THF	601	608		0.95	192*
	cyclohex anone	603	610		0.74	190*
	acetone	598	606		0.44	221*
	propioni trile	599	606		0.26	193*
	MeCN	598	606		0.093	221*
	MeOH	598	605		0.48	193*
	hexane	n.d. (low solu.)	605		0.78	
	Bu ₂ O	601	608		0.89	192*
	Et ₂ O	598	606		0.94	221*
	ethyl acetate	599	606		0.92	193*
	THF	601	609		0.92	219*
	cyclohex anone	603	611		0.88	217*
	acetone	599	607		0.96	220*
	propioni trile	599	608		0.96	247*
	MeCN	598	607		0.86	248*
	MeOH	598	606		0.80	221*

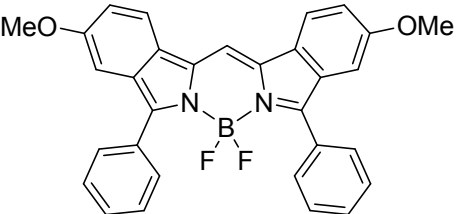
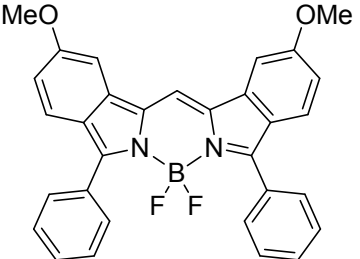
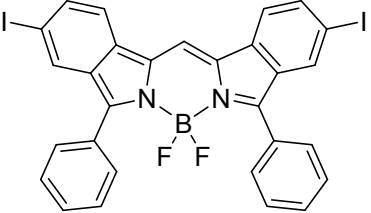
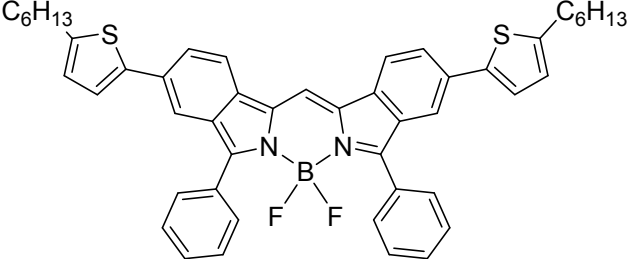
		561, 606 (CH ₂ Cl ₂)	614	0.263, 1.35 (CHCl ₃)	0.26 (EtOH)	215	24
	CH ₂ Cl ₂	560, 605	624	0.257, 1.35	0.08 (ex 562 nm)	503*	33
	toluene	623		6.9x10 ⁻⁵			
	MeCN		617		0.08 (ex 562 nm)		
	CH ₂ Cl ₂	560, 605	622	0.264, 1.318	0.90 (ex 562 nm)	452*	33
	toluene	626		7.9x10 ⁻⁵			
	MeCN		615		0.83 (ex 562 nm)		
	CH ₂ Cl ₂	571	597	nd (not stable)	nd (not stable)	763*	34a

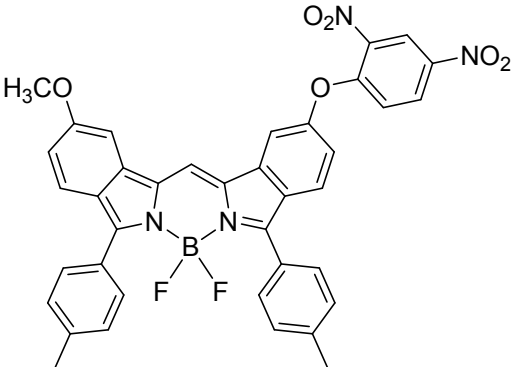
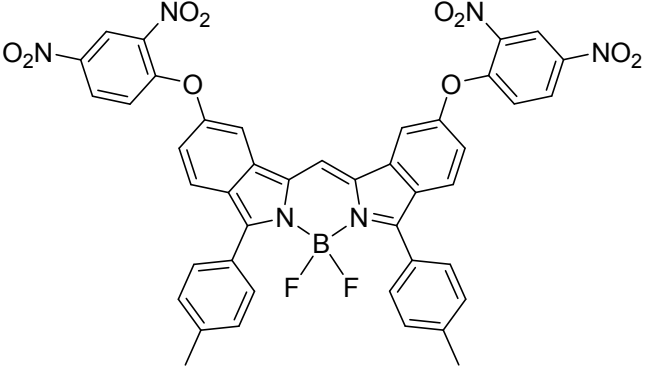
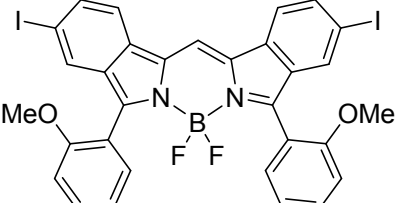
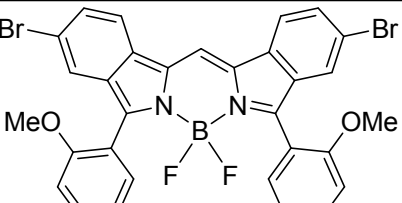
	MeOH	691	732	0.71	0.20	850	28
	MeCN	693	741	0.692	0.24	980	
	cyclohexanone	703	739	0.776	0.28	740	
	THF	697	726	0.794	0.30	620	
	Et ₂ O	688	709	0.933	0.39	480	
	Bu ₂ O	690	709	0.912	0.45	410	
	hexane	685	697	n.d. (low solub)	0.35	250	
	CH ₂ Cl ₂	642	664	0.20	0.38	516	57
	MeOH	635	651 (ex 600 nm)	0.03	0.11	387	
	toluene	644	665 (ex 600 nm)	0.13	0.91	490	
	hexane	637	654		0.44		15, 57
	Bu ₂ O	637	657		0.45		
	Et ₂ O	633	655		0.43	531*	
	ethyl acetate	632	657		0.39	602*	
	THF	635	660		0.42	597*	
	cyclohexanone	635	663		0.42	665*	
	acetone	631	659		0.43	673*	
	propionitrile	633	661		0.36	669*	

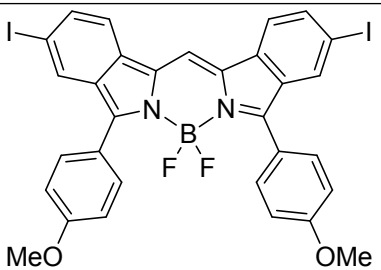
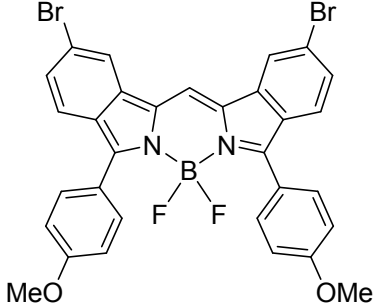
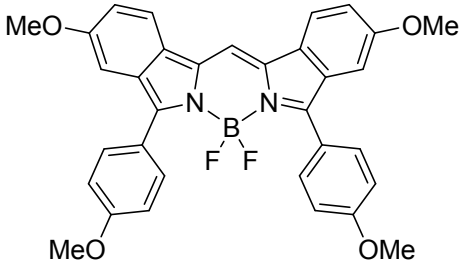
	MeCN	633	662		0.43	692*	
	MeOH	634	664		0.34	713*	
	CH ₂ Cl ₂	643	665 (ex 600 nm)	0.244	0.38	515	
	toluene	643	663 (ex 600 nm)	0.100	0.83	469	
	CH ₂ Cl ₂	658	680 (ex 600 nm)	0.192	0.31	492	57
	MeOH	652	nd	nd	nd	nd	
	toluene	658	679 (ex 600 nm)	0.072	0.6	470	
	CH ₂ Cl ₂	643	664 (ex 600 nm)	0.153	0.43	492	57
	MeOH	635	655 (ex 600 nm)	0.186	0.38	481	
	toluene	643	662 (ex 600 nm)	0.082	0.81	446	
	CH ₂ Cl ₂	644	666 (ex 600 nm)	0.263	0.43	513	57

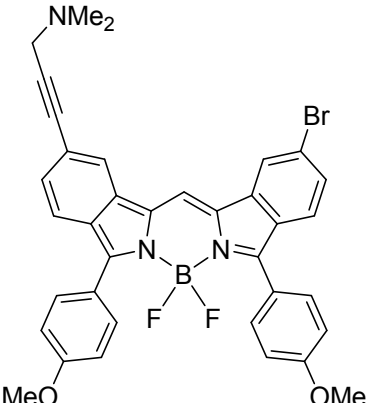
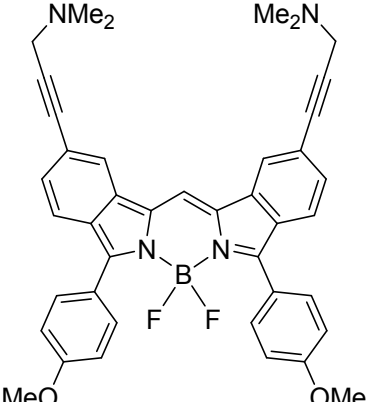
	MeOH	636	654 (ex 600 nm)	0.088	0.36	433	
	toluene	643	663 (ex 600 nm)	0.251	0.82	469	
	hexane	638	655		0.35	407*	15
	Bu ₂ O	637	658		0.40	501*	
	Et ₂ O	634	656		0.45	529*	
	ethyl acetate	634	658		0.37	575*	
	THF	635	661		0.41	619*	
	cyclohexanone	635	663		0.13	665*	
	acetone	631	660		0.039	696*	
	propionitrile	633	662		0.016	692*	
	MeCN	634	662		0.018	667*	
	MeOH	636	661		0.046	595*	
	THF	640	662 (ex 600 nm)	1.07	0.57	519	55, 53
	MeOH	634	658	1.08	0.92	575*	34a
	CHCl ₃	644	667	1.025	0.73	535*	
	MeCN	633	657	1.068	1.00	577*	
	dioxane	639	660	1.127	0.84	498*	
	toluene	645	663	1.085	0.61	421*	
	hexane	638	657	1.158	0.89	453*	
	CH ₂ Cl ₂	634	658	1.084	0.88	575	39
CH ₂ Cl ₂	641	663	1.037	0.65	518	48	
	MeOH	646	673	1.05	0.71	621*	34a
	MeOH	648	680	0.549	0.78	726	71

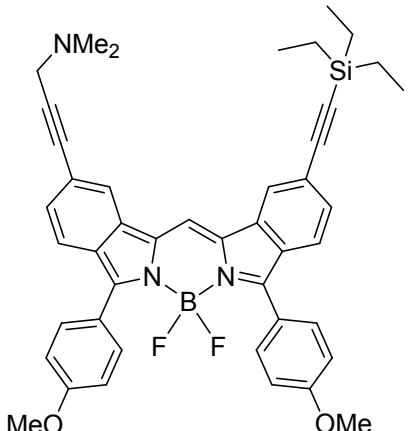
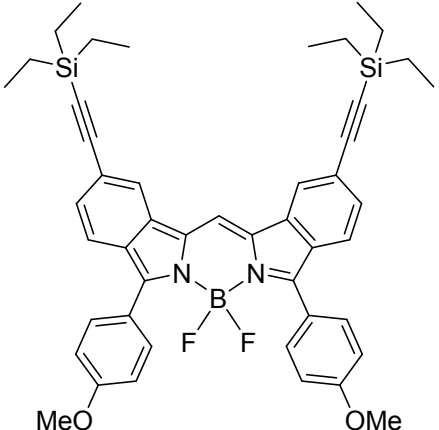
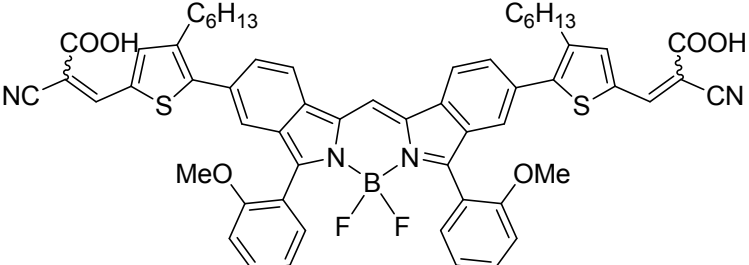
	MeCN	645	680	0.603	0.74	798	71
	THF	653	684	0.832	0.73	694	71
	CH ₂ Cl ₂	654	687	0.871	0.76	734	71
	toluene	658	690	0.692	0.70	705	71
	MeCN	640	671	0.724	0.85	722	71
	MeOH	642	673	0.692	0.99	717	71
	THF	648	677	0.871	0.82	661	71
	CH ₂ Cl ₂	648	679	0.933	0.91	704	71
	toluene	653	681	1.096	0.76	630	71
	MeOH	659	698	nd	nd	848*	34a
	MeCN	634	663	0.575	0.93	690	71
	MeOH	635	664	0.595	0.93	688	71
	THF	641	669	0.692	0.82	653	71
	CH ₂ Cl ₂	643	671	0.741	0.92	649	71
	toluene	646	674	0.871	0.78	643	71
	MeCN	635	669	0.631	0.90	800	71
	MeOH	637	671	0.724	0.96	795	71
	THF	643	675	0.708	0.87	737	71
	CH ₂ Cl ₂	648	677	0.955	0.87	757	71
	toluene	648	679	1.023	0.75	704	71

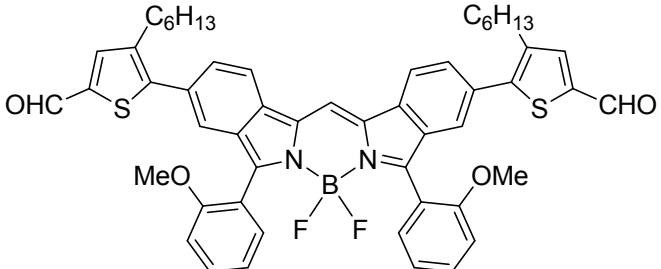
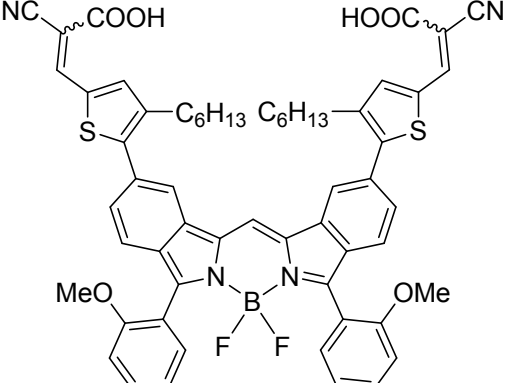
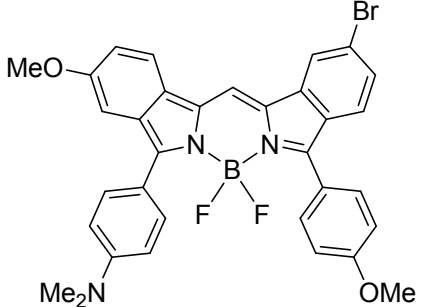
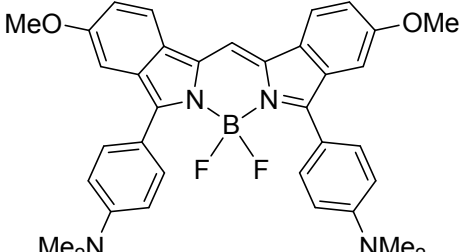
	MeOH	663	690	0.96	0.57	590*	34a
	CHCl ₃	625	652	nd	nd	662*	34a
	CHCl ₃	653	683	1.55	0.56	672*	45
	THF	677	701 (ex 654 nm)	1.23	0.33	506	53

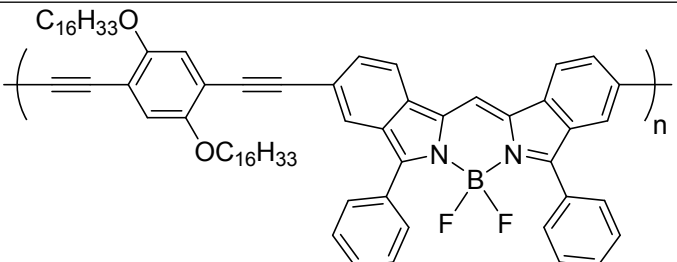
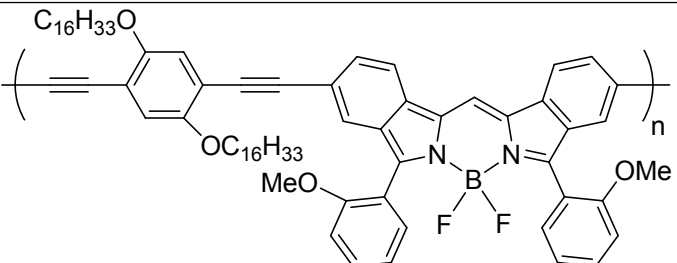
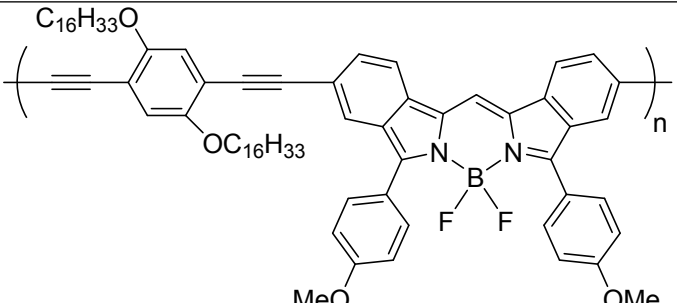
	PBS/ DMSO	650	655			117*	54
	PBS/ DMSO	650	663			302*	54
	CHCl ₃	638	673	2.09	0.62	815*	45
	THF	360, 631		0.212, 1.11			51

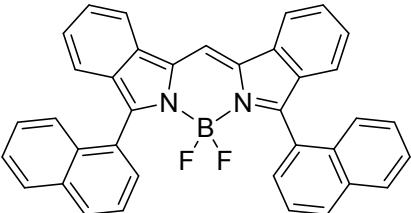
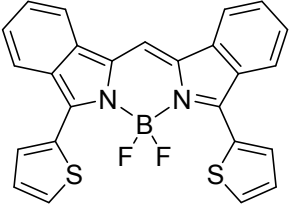
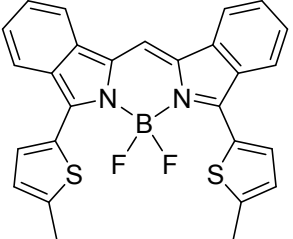
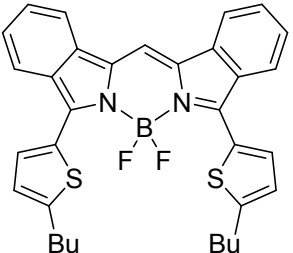
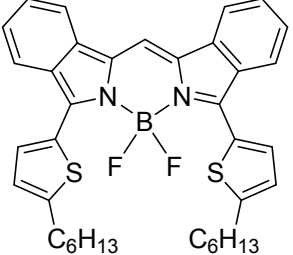
 <p>Chemical structure of a porphyrin derivative with two iodine atoms and two methoxy groups.</p>	CHCl ₃	667	702	2.05	0.72	747*	45
 <p>Chemical structure of a porphyrin derivative with two bromine atoms and two methoxy groups.</p>	CH ₂ Cl ₂	651	679	0.86	0.75	633	62
 <p>Chemical structure of a porphyrin derivative with four methoxy groups.</p>	MeOH	673	704	1.19	0.51	654*	34a
	CH ₂ Cl ₂	673	704	1.186	0.49	654	39
	CH ₂ Cl ₂	679	708	0.898	0.49	603	48
	THF	654		0.867			32

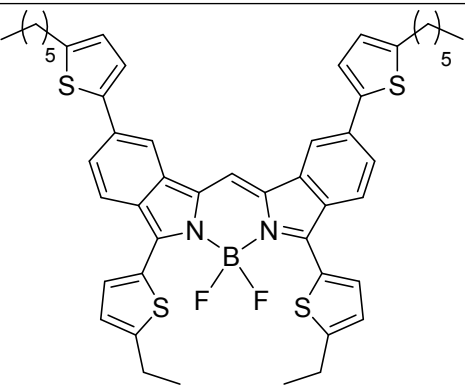
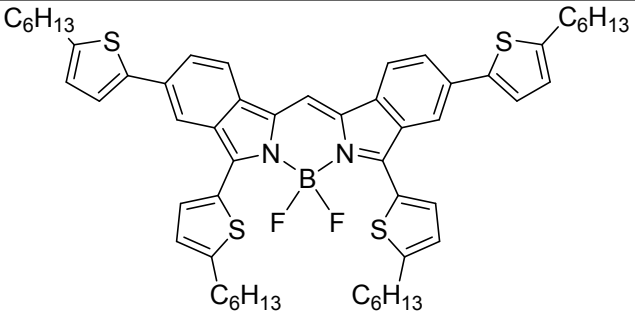
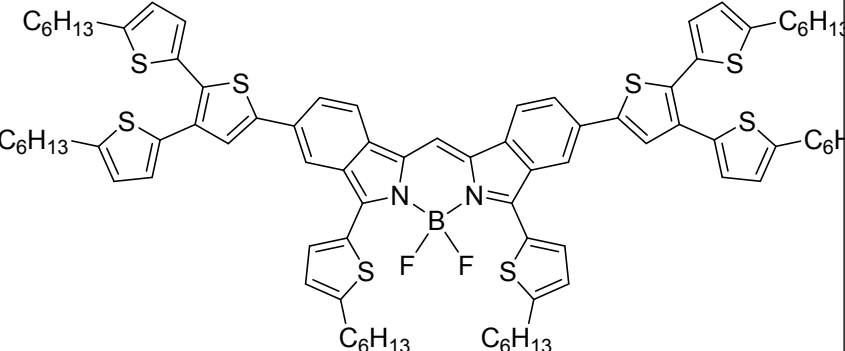
	CH ₂ Cl ₂	662	687	1.25	0.54	549	62
	CH ₂ Cl ₂	673	698	1.17	0.49	532	62

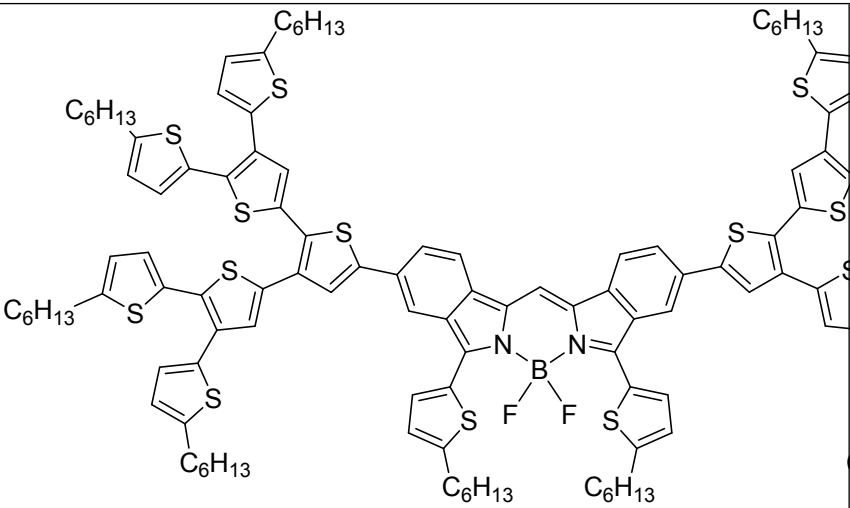
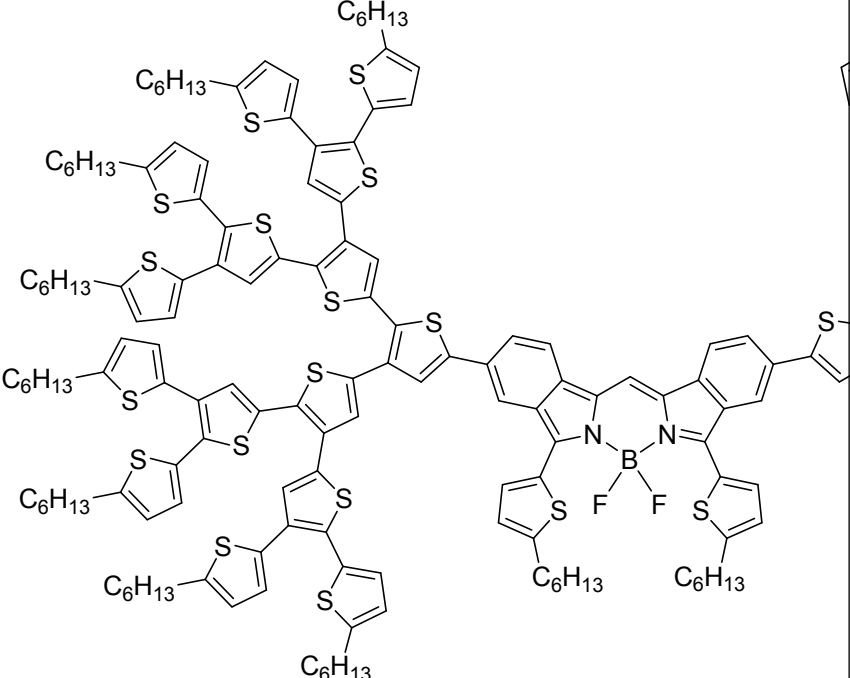
	CH ₂ Cl ₂	676	699	1.24	0.50	486	62
	CH ₂ Cl ₂	678	703	1.19	0.52	524	62
	THF	371, 457, 647		0.500, 0.192, 1.57			51

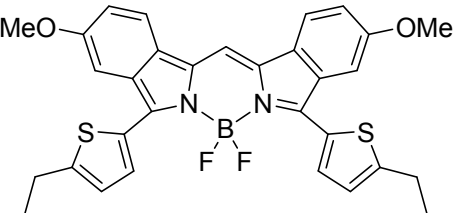
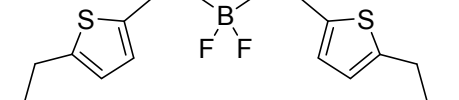
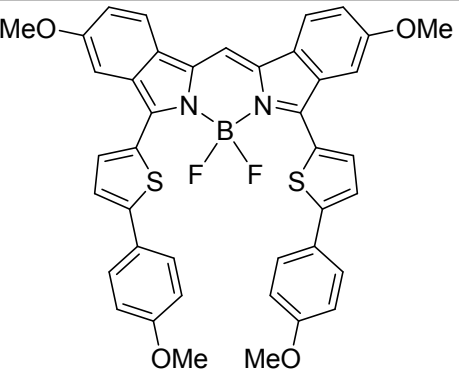
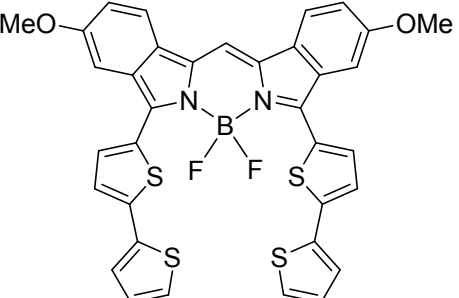
	THF	371, 644		0.332, 1.39			51
	THF	369, 406, 660		0.478, 0.390, 1.09			51
	toluene	690	725	0.88	0.36	699	62
	CH ₂ Cl ₂	687	728	0.86	0.34	820	
	acetone	682	725	0.84	0.27	869	
	acetone + H ⁺	664	692	0.79	0.40	609	
	toluene	716	762	0.95	0.28	843	62

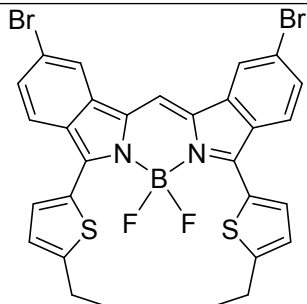
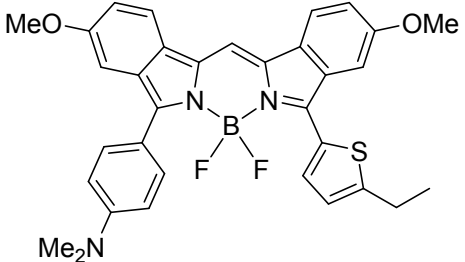
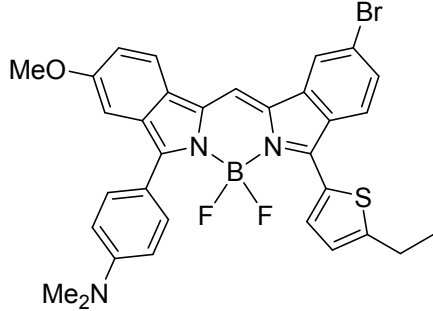
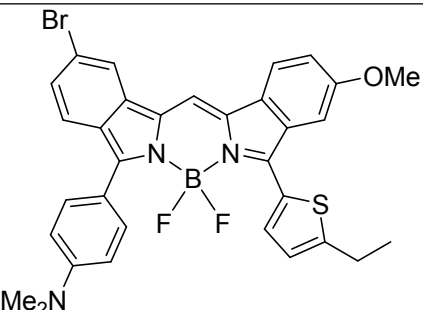
	CH ₂ Cl ₂	717	769	0.70	0.21	943	
	acetone	713	773	0.86	0.18	1088	
	acetone + H ⁺	687	711	0.76	0.30	491	
	CHCl ₃	677	705	1.42	0.33	587*	45
	CHCl ₃	662	691	2.02	0.49	634*	45
	CHCl ₃	694	720	2.14	0.38	520*	45

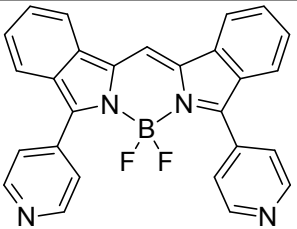
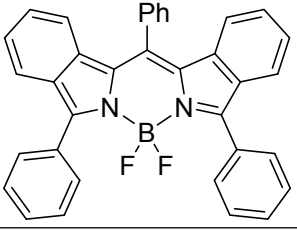
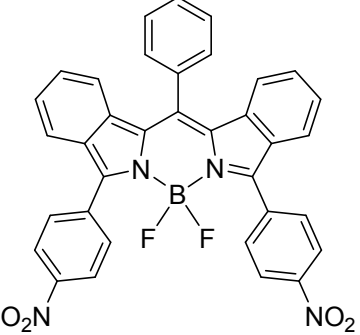
	MeOH	621	645	1.19	1.0	599*	34a
	MeOH	680	713	nd	0.35	681*	34a
	MeCN	690	737	0.490	0.33	924	71
	MeOH	693	738	0.589	0.30	880	71
	THF	698	742	0.661	0.33	850	71
	CH ₂ Cl ₂	699	745	0.912	0.36	815	71
	toluene	706	747	0.724	0.35	777	71
	MeOH	696	732	0.816	0.19	707*	34a
	THF	705	674 (ex 654 nm)	0.806	0.16	671	53

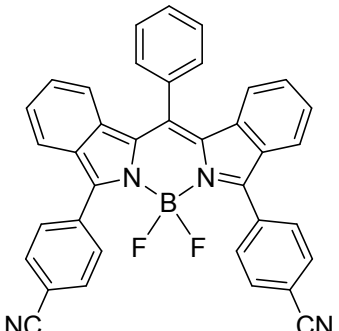
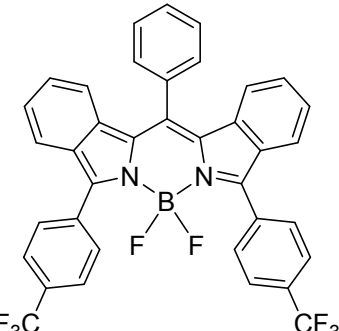
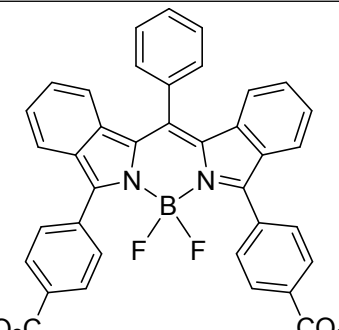
	CH ₂ Cl ₂	729	765	1.03	0.24	654	62
	THF	735	769 (ex 654 nm)	1.12	0.11	602	53
	hexane	733	763 (ex 654 nm)	1.23	0.088	536	53
	DMF	738	773 (ex 654 nm)	1.03	0.069	614	53
	THF	737	767 (ex 303 nm)	1.29	0.024	20000	53
		767 (ex 654 nm)	0.089	531	53		

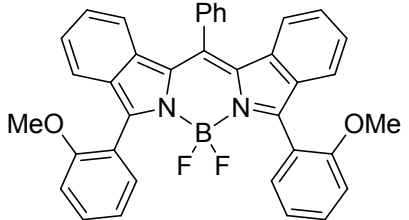
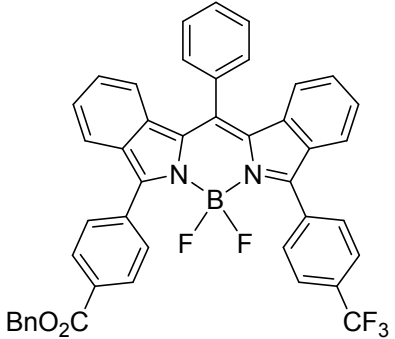
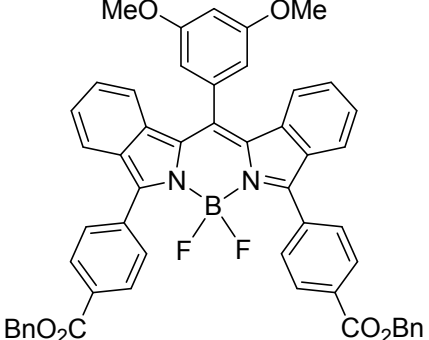
	THF	737	767 (ex 303 nm)	1.31	0.024	20000	53
			767 (ex 654 nm)		0.099	531	53
	THF	737	767 (ex 303 nm)	1.41	0.023	20000	53
			767 (ex 654 nm)		0.12	531	53

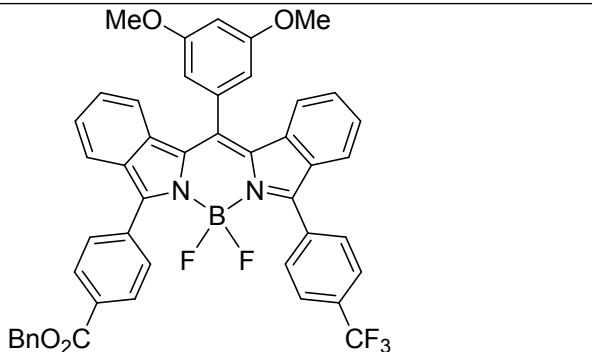
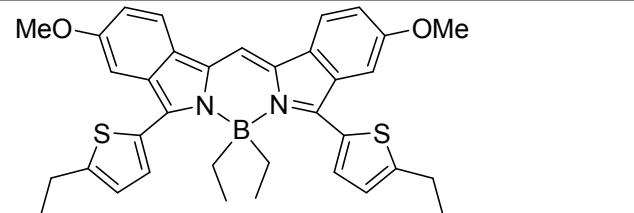
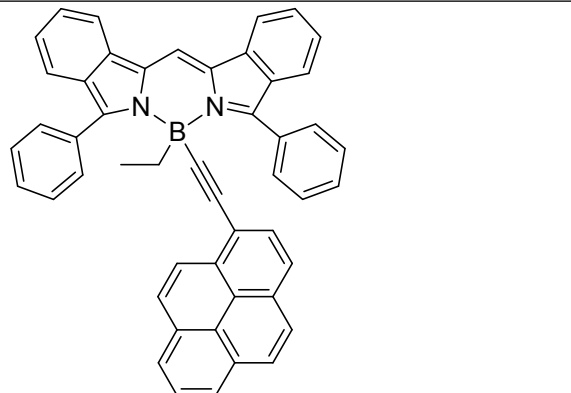
	CH ₂ Cl ₂	727	780	0.90	0.20	930	38
	CH ₂ Cl ₂	727	780	1.00	0.20	934	39
	CH ₂ Cl ₂	732	780	0.778	0.16	840	48
	CH ₂ Cl ₂	765	827	0.668		980*	34b
	CH ₂ Cl ₂	766	831	0.654		1021*	34b

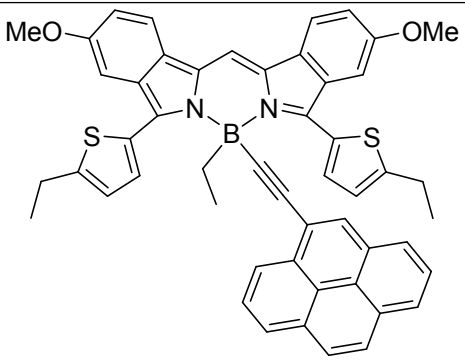
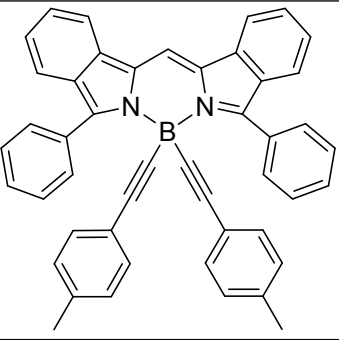
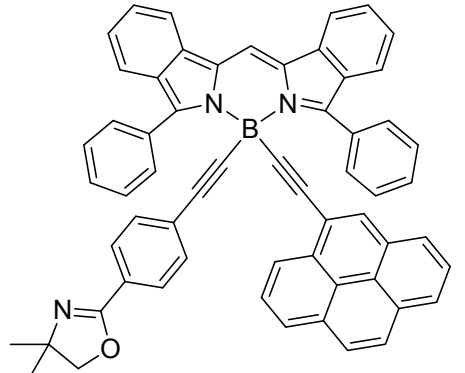
	CH ₂ Cl ₂	700	741	0.88	0.41	790	62
	toluene	723	763	0.92	0.28	725	62
	CH ₂ Cl ₂	723	774	0.80	0.22	912	
	acetone	719	766	0.68	0.17	989	
	acetone + H ⁺	700	738	0.69	0.24	735	
	toluene	710	754	0.88	0.27	821	62
	CH ₂ Cl ₂	708	759	0.80	0.19	949	
	acetone	699	753	0.84	0.14	1025	
	acetone + H ⁺	686	721	0.86	0.22	707	
	toluene	716	758	0.86	0.29	773	62

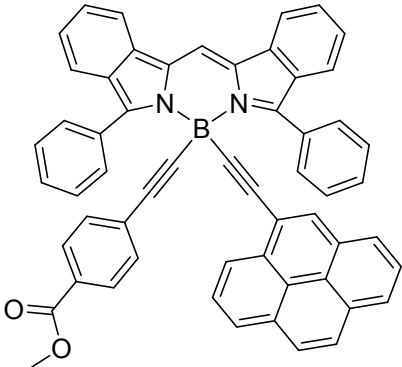
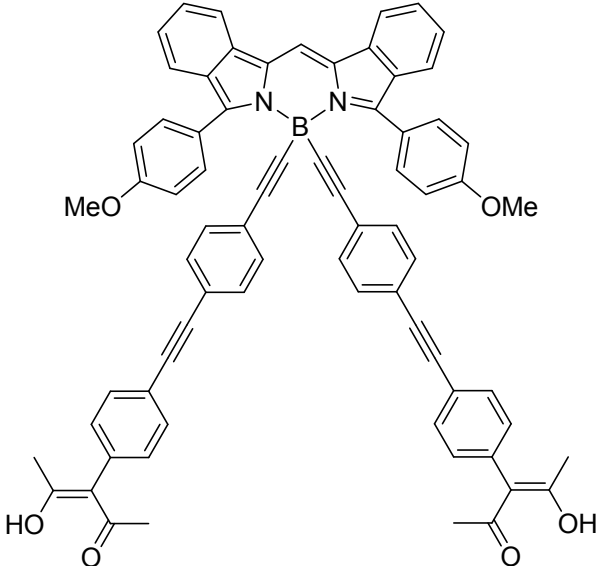
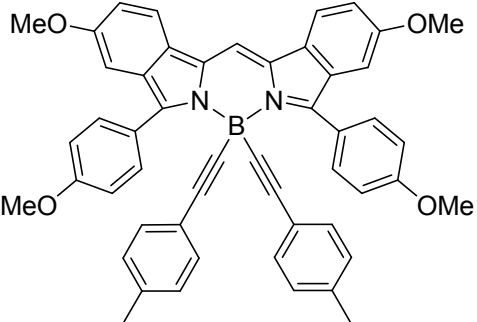
	CH ₂ Cl ₂	714	765	0.75	0.23	933	
	acetone	708	761	0.74	0.18	983	
	acetone + H ⁺	684	712	0.72	0.22	574	
	MeOH	644	671	0.96	0.78	625*	34a
	CH ₂ Cl ₂	631	664	1.023	0.93	788*	30
	THF	631	651	0.603	0.64	487	58
	THF	651	683	0.525	0.23	720	58

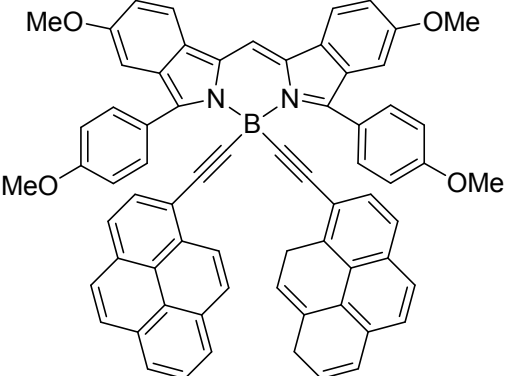
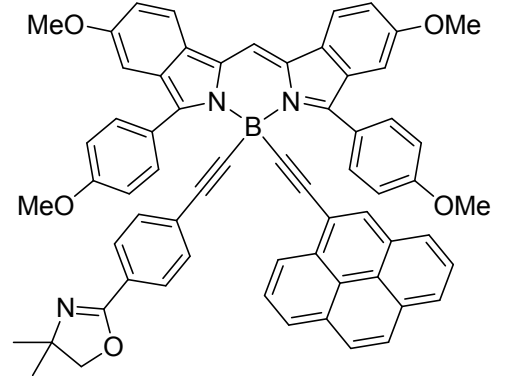
	THF	643	670	0.589	0.48	627	58
	THF	635	656	0.617	0.67	504	58
	THF	641	667	0.871	0.48	608	58

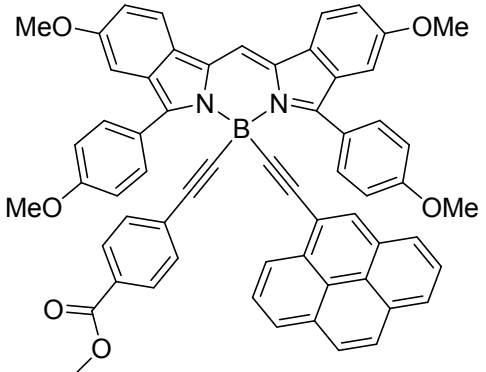
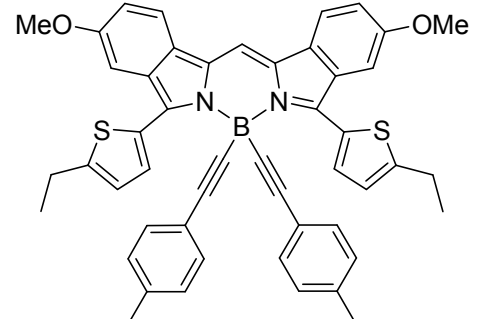
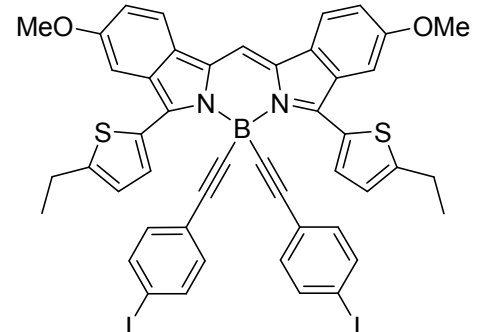
	CH ₂ Cl ₂	617	652	1.023	0.91	870*	30
	THF	638	664	0.871	0.55	614	58
	THF	642	667	0.977	0.46	584	58

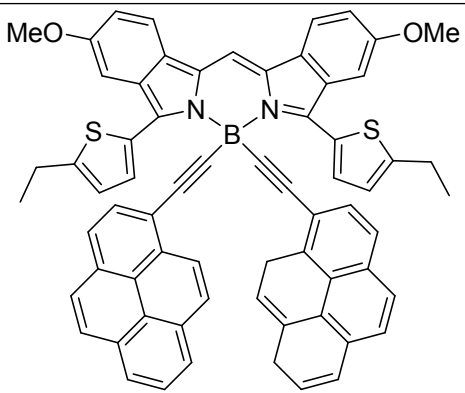
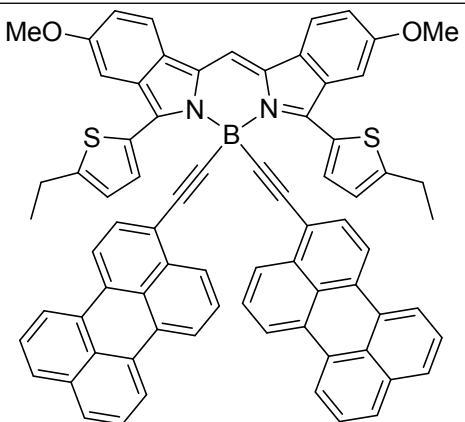
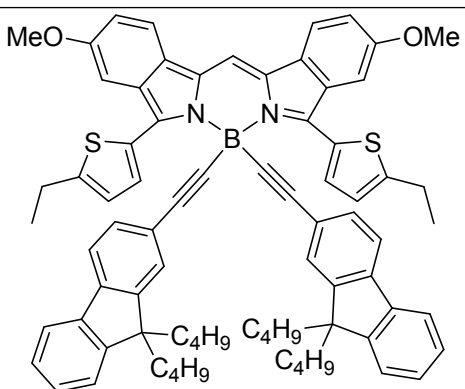
	THF	638	663	0.776	0.55	591	58
B,C-chelate DIISOINDOLE-BODIPY							
	CH ₂ Cl ₂	641	697	0.912	0.43	1250	48
	CH ₂ Cl ₂	370, 614	643, 643	0.42, 0.783	0.64, 0.65	11475, 734	39
	CH ₂ Cl ₂	370, 612	/, 643	0.467, 0.941	0.70, 0.71	11475, 788	48

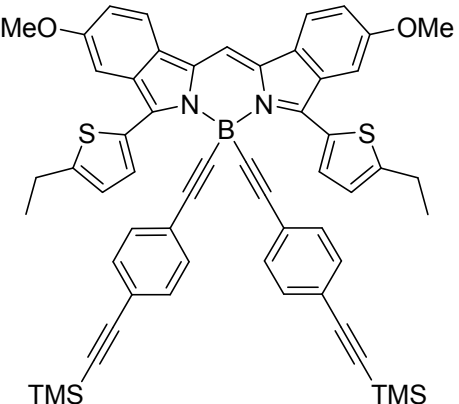
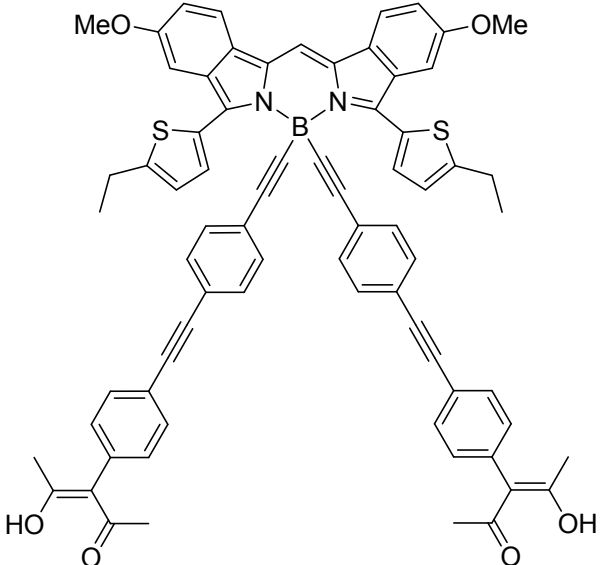
	CH ₂ Cl ₂	371, 680	/, 737	0.70, 0.78	0.20, 0.26	13386, 11370	48
	CH ₂ Cl ₂	632	656	0.825	0.57	579	39
	CH ₂ Cl ₂	632	656	0.825	0.60	479	48
	CH ₂ Cl ₂	368, 634	/, 658	0.526, 0.829	0.61, 0.62	11976, 575	48

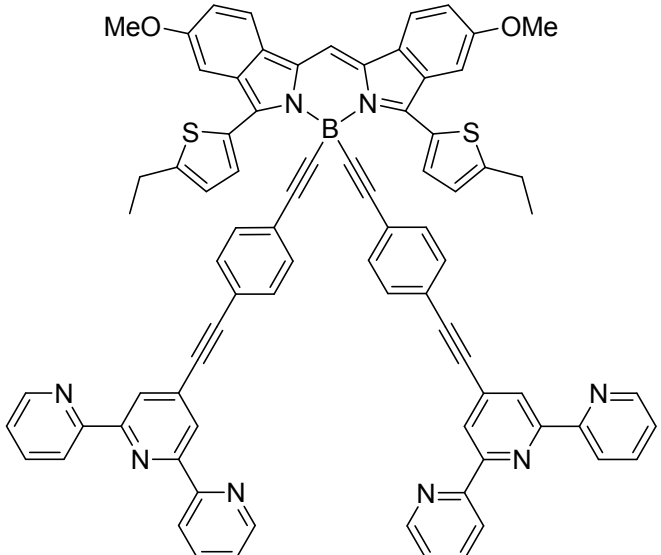
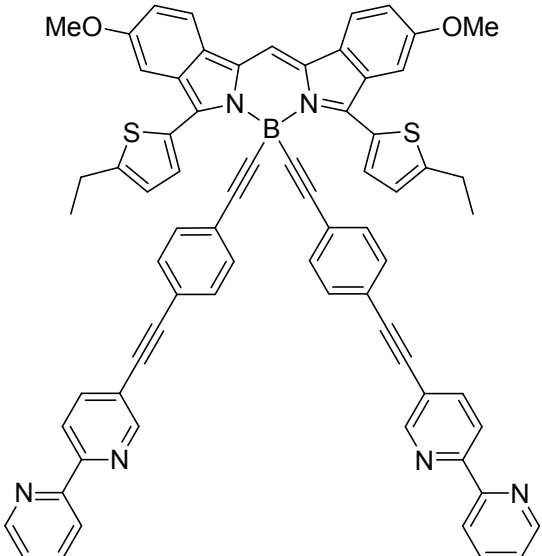
	CH ₂ Cl ₂	368, 634	/, 660	0.551, 0.923	0.64, 0.65	12000, 621	48
	CH ₂ Cl ₂	643	672	0.75	0.66	671*	47
	CH ₂ Cl ₂	666	700	0.85	0.58	729	39

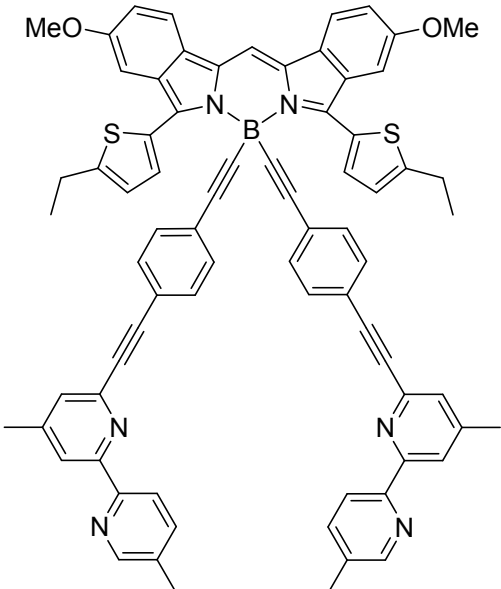
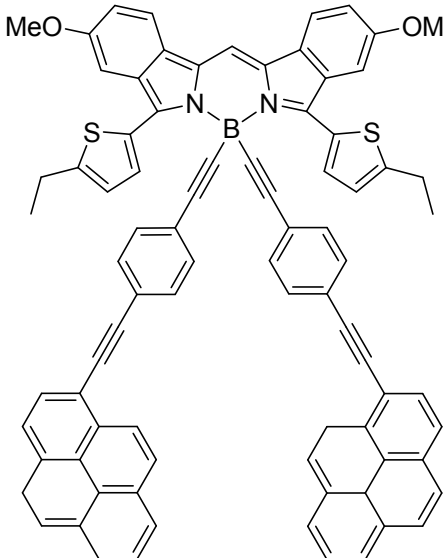
	CH ₂ Cl ₂	668	700	0.761	0.49	684	48
	CH ₂ Cl ₂	370, 667	702, 702	1.11, 0.885	0.32, 0.56	12780, 748	39
	CH ₂ Cl ₂	370, 669	/, 695	1.02, 0.845	0.52, 0.52	12638, 560	48
	CH ₂ Cl ₂	368, 671	/, 701	0.732, 0.898	0.57, 0.57	12910, 638	48

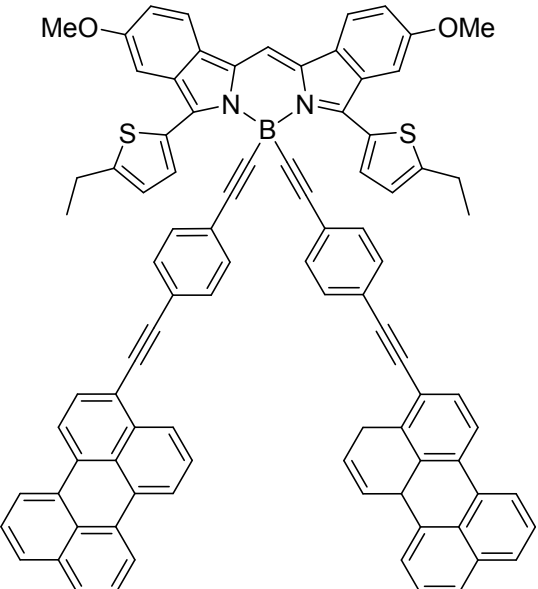
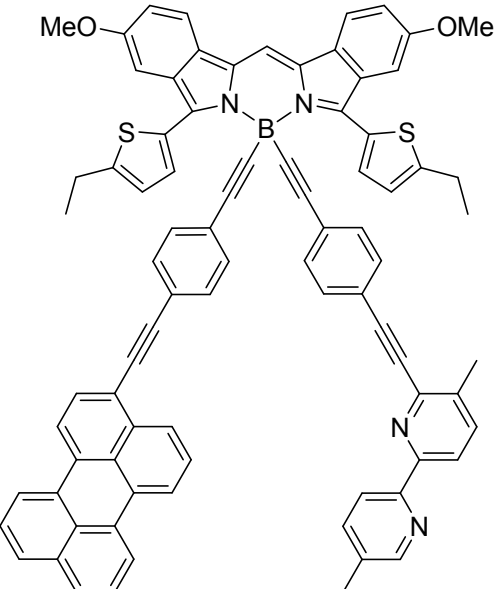
	CH ₂ Cl ₂	368, 669	/, 701	0.54, 0.758	0.49, 0.50	12910, 682	48
	CH ₂ Cl ₂	709	750	0.86	0.42	771	38
	CH ₂ Cl ₂	707	746	0.90	0.36	740	39
	CH ₂ Cl ₂	707	746	0.85	0.29	740	48
	CH ₂ Cl ₂	709	750	0.84	0.45	771	38

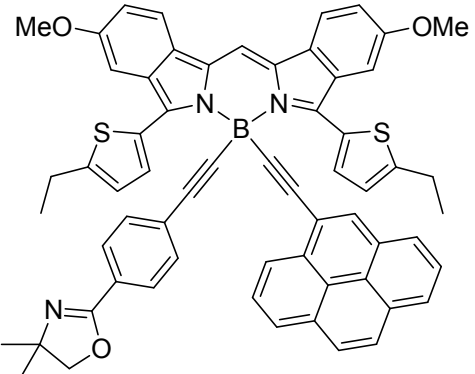
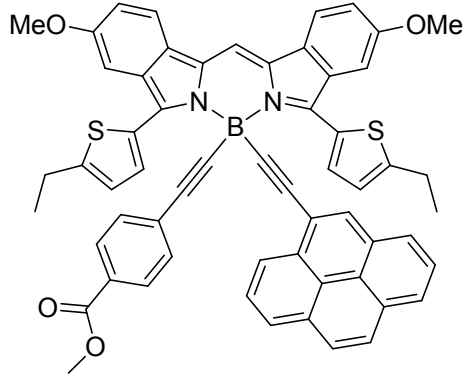
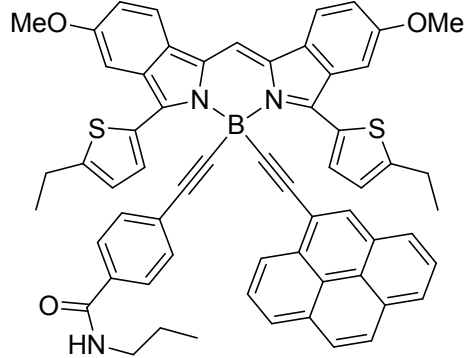
	CH ₂ Cl ₂	371, 720	758, 754	1.40, 0.90	0.24, 0.33	13762, 626	39
	CH ₂ Cl ₂	370, 720	/, 756	1.17, 0.781	0.21, 0.21	13800, 660	48
	CH ₂ Cl ₂	464, 720	755, 755	1.17, 0.82	0.15, 0.24	8307, 644	48
	CH ₂ Cl ₂	324, 709	/, 750	1.10, 0.82	0.16, 0.22	17530, 771	48

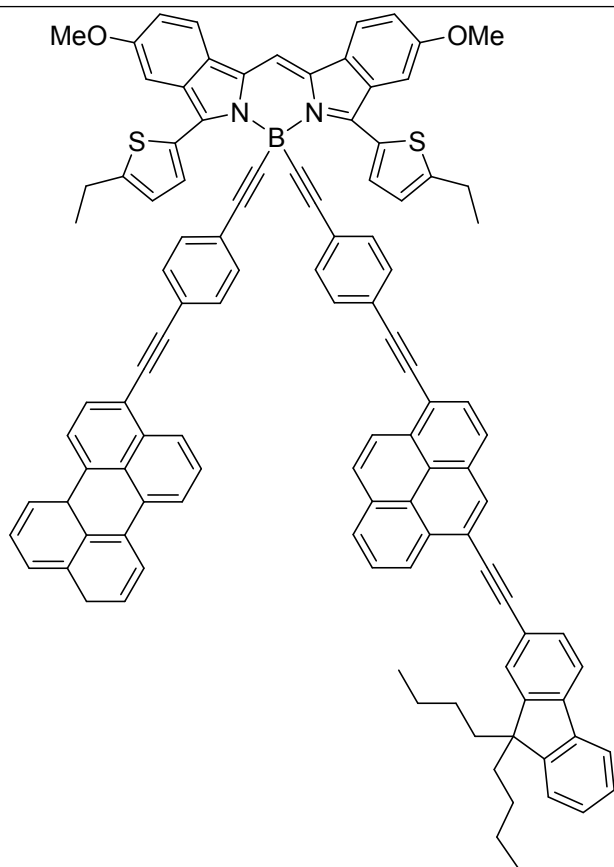
 <p>The structure shows a central boron atom coordinated to two nitrogen atoms of a porphyrin-like ring system. The ring has two methoxy (MeO) groups. The boron atom is also coordinated to two alkyne groups, each protected with a trimethylsilyl (TMS) group. The alkyne chains are connected to the boron via triple bonds.</p>	CH ₂ Cl ₂	707	750	0.81	0.43	790	38
 <p>The structure is similar to the one above, but the alkyne chains are terminated with hydroxy-terminated alkyne groups. Each alkyne chain consists of a triple bond connected to a phenyl ring, which is further connected to another triple bond, and finally to a carbon atom that is part of a vinyl alcohol derivative (HO-C=C-CH₃).</p>	CH ₂ Cl ₂	709	749	0.88	0.50	753*	47

 <p>The structure shows a central boron atom coordinated to two nitrogen atoms of a porphyrin-like macrocycle. The meso positions of the porphyrin are substituted with 4-methoxyphenyl groups. Two ethylthiophene groups are also coordinated to the boron. Two phenylacetylene ligands are coordinated to the boron, each further substituted with two pyridine rings.</p>	CH ₂ Cl ₂	335, 709	750, 750	1.30, 0.86	0.08, 0.22	16500, 771	38
 <p>The structure is identical to the one above, showing a central boron atom coordinated to two nitrogen atoms of a porphyrin-like macrocycle with 4-methoxyphenyl meso-substituents, two ethylthiophene groups, and two bis(pyridine)phenylacetylene ligands.</p>	CH ₂ Cl ₂	335, 708	750, 750	1.23, 0.80	0.09, 0.21	16600, 790	38

	CH ₂ Cl ₂	342, 708	750, 750	0.95, 0.81	0.09, 0.19	16000, 790	38
	CH ₂ Cl ₂	399, 708	750, 750	1.35, 0.83	0.23, 0.40	11800, 790	38

	CH ₂ Cl ₂	474, 708	750, 750	1.22, 0.84	0.15, 0.40	7800, 790	38
	CH ₂ Cl ₂	344, 399, 708	750, 750, 750	0.76, 0.71, 0.80	0.15, 0.18, 0.34	15700, 11800, 790	38

	CH ₂ Cl ₂	371, 717	/, 753	0.76, 0.79	0.24, 0.24	13700, 631	48
	CH ₂ Cl ₂	371, 716	/, 751	0.79, 0.83	0.17, 0.19	13700; 650	48
	CH ₂ Cl ₂	371, 713	/, 750	1.015, 0.84	0.21, 0.24	13600, 692	48



CH₂Cl₂

708

750

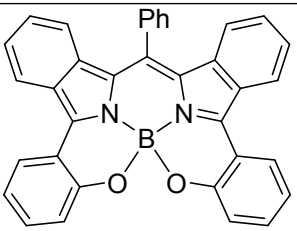
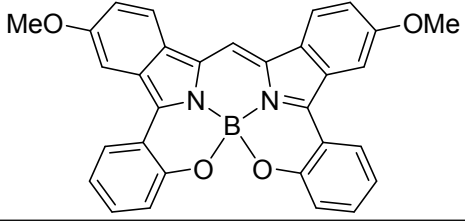
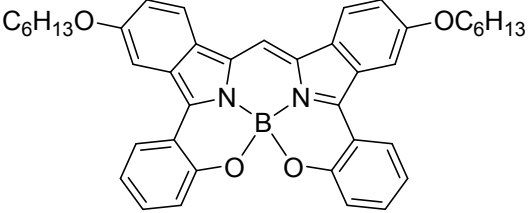
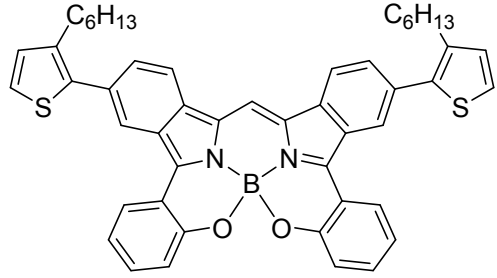
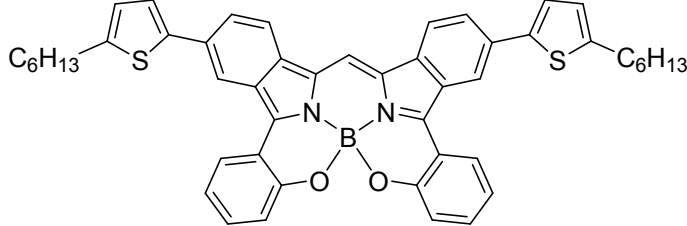
0.78

0.46

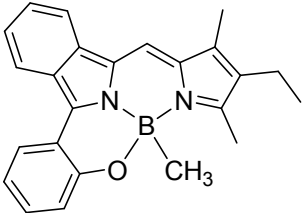
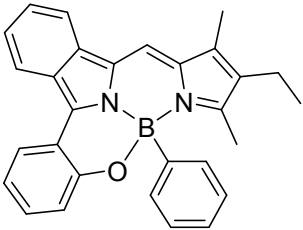
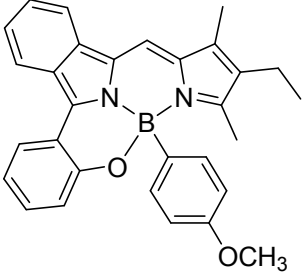
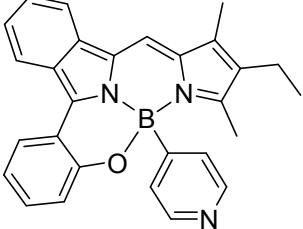
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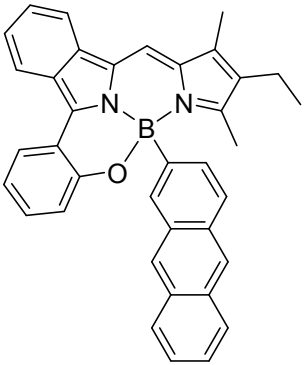
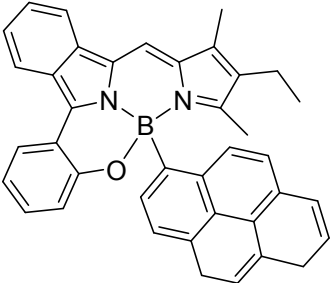
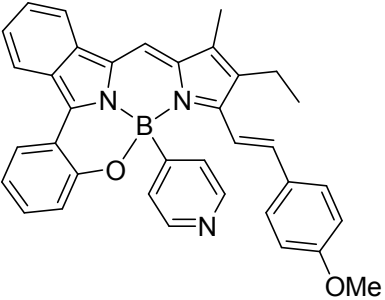
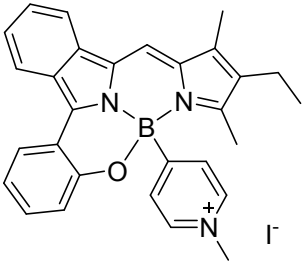
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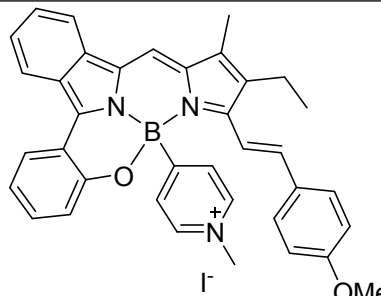
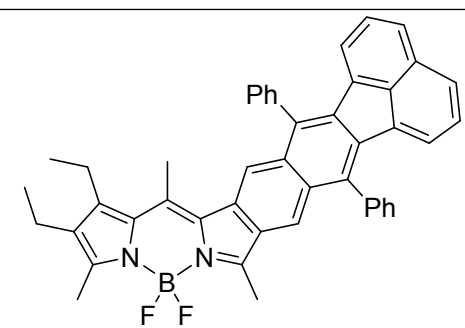
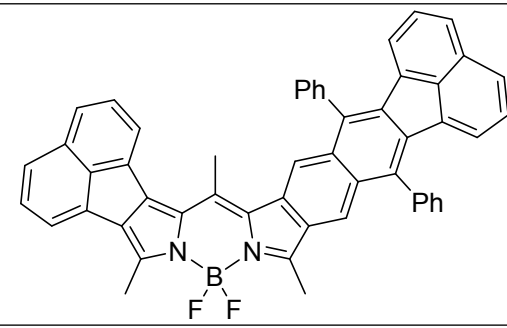
B,O-chelate DIISOINDOLE-BODIPYs

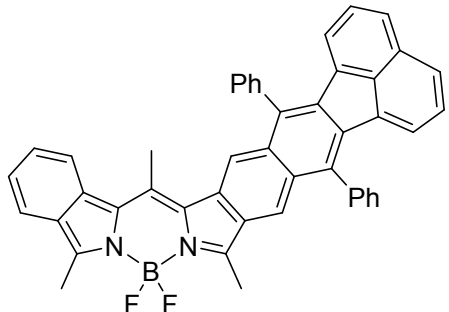
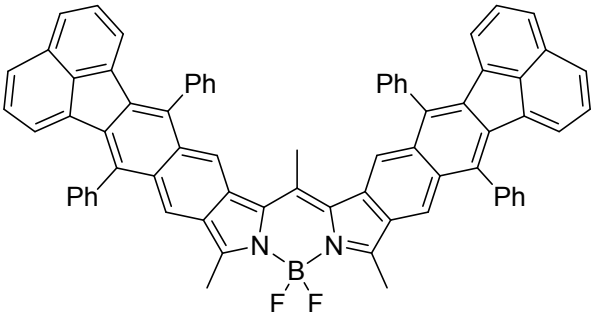
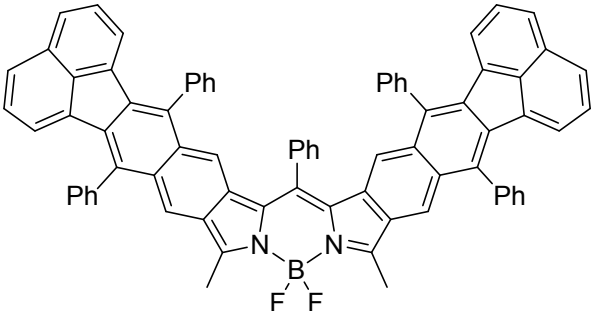
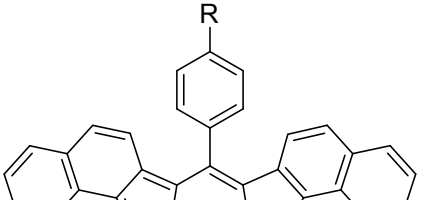
	CH ₂ Cl ₂	711	733	0.912	0.58	422*	30
	THF	746		0.829			32
	THF	748		0.834			32
	THF	733		1.35			49
	THF	747		1.48			49

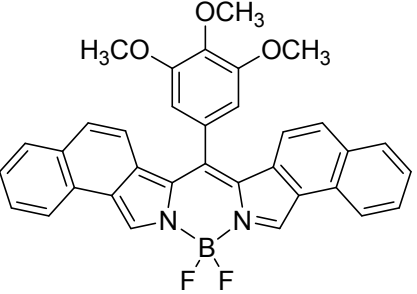
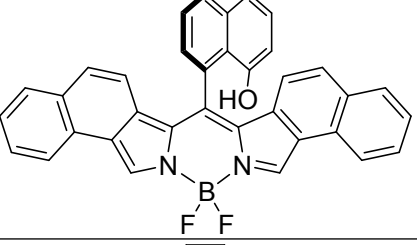
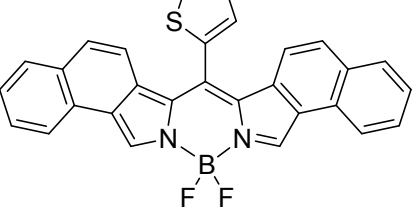
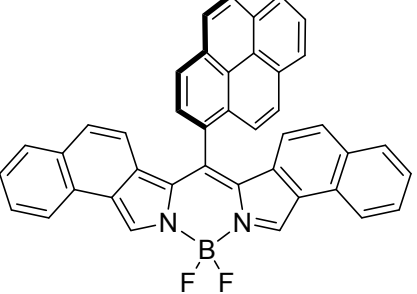
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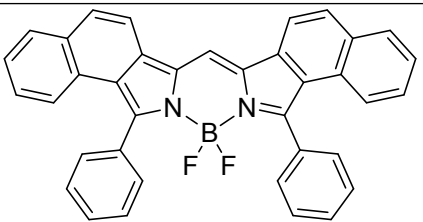
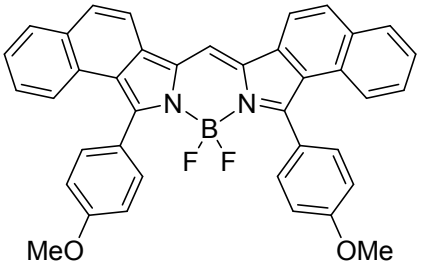
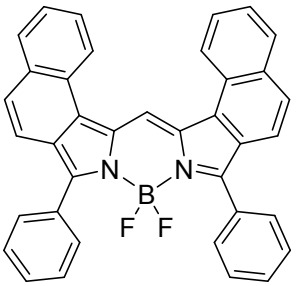
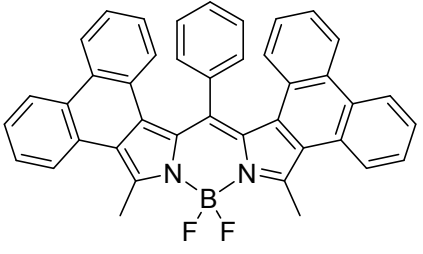
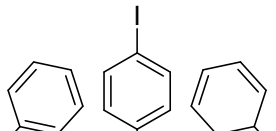
	hexane	621	632	0.772	0.78	268	72
	toluene	625	636	0.690	0.71	290	
	CH ₂ Cl ₂	622	635	0.626	0.76	317	
	MeCN	616	630	0.599	0.75	348	
	hexane	625	636	0.863	0.77	277	72
	toluene	629	64	0.793	0.64	286	
	CH ₂ Cl ₂	627	638	0.748	0.75	275	
	MeCN	621	634	0.733	0.75	330	
	hexane	625	635	0.688	0.71	252	72
	toluene	629	641	0.650	0.68	285	
	CH ₂ Cl ₂	627	639	0.646	0.70	312	
	MeCN	621	634	0.689	0.67	318	
	hexane	625	636	0.745	0.78	277	72
	toluene	629	639	0.649	0.70	261	
	CH ₂ Cl ₂	627	639	0.624	0.70	287	
	MeCN	621	633	0.558	0.73	306	

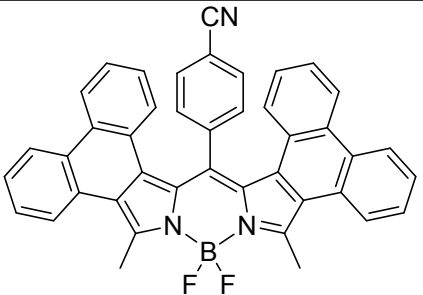
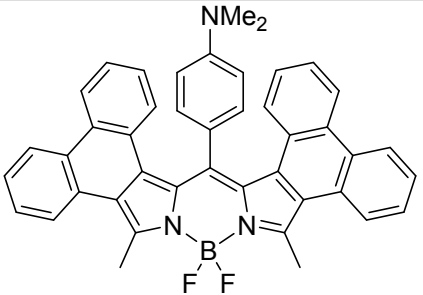
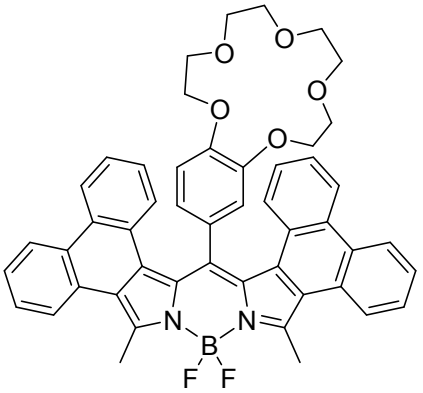
	hexane	626	636	0.801	0.75	264	72
	toluene	630	641	0.740	0.68	273	
	CH ₂ Cl ₂	627	639	0.662	0.76	300	
	MeCN	621	635	0.659	0.66	343	
	hexane	627	638	0.728	0.72	275	72
	toluene	630	642	0.663	0.66	197	
	CH ₂ Cl ₂	628	640	0.66	0.71	299	
	MeCN	622	635	0.582	0.66	342	
	hexane	698	711	0.677	0.36	262	72
	toluene	703	720	0.624	0.35	336	
	CH ₂ Cl ₂	699	717	0.554	0.35	359	
	MeCN	690	712	0.565	0.37	448	
	MeOH	621	637	0.825	0.58	401	72

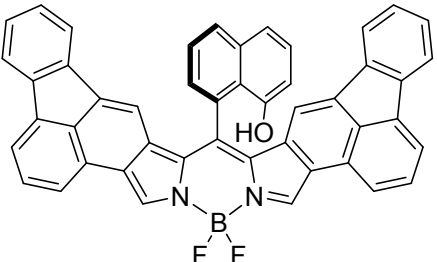
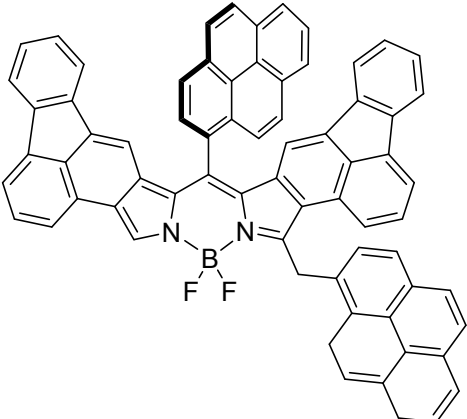
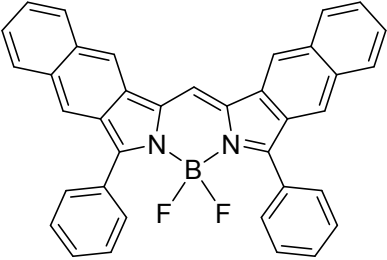
	DMSO	626	642	0.716	0.63	398	
	MeOH	695	717	0.470	0.21	441	72
	DMSO	703	727	0.447	0.26	470	
HIGHLY CONJUGATED BODIPYs							
	CH ₂ Cl ₂	629	652	0.776	0.70 (ex 586 nm)	561*	29
	CH ₂ Cl ₂	658	695	0.794	0.70 (ex 610 nm)	809*	29

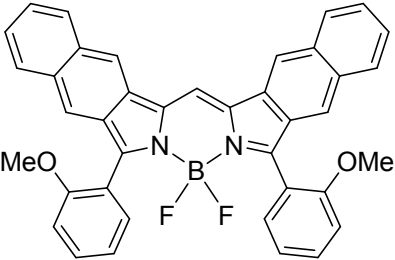
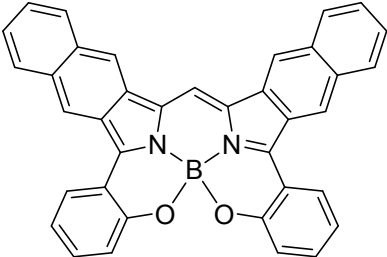
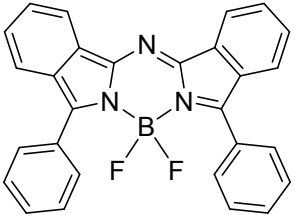
	CH ₂ Cl ₂	681	697	0.912	0.36 (ex 627 nm)	337*	29	
	CH ₂ Cl ₂	761	777	1.66	0.35 (ex 695 nm)	271*	29	
	CH ₂ Cl ₂	765	783	1.995	0.32 (ex 700 nm)	301*	29	
	R = H	CH ₂ Cl ₂	600	608	1.07	1.0	219*	21
	R = Me	CH ₂ Cl ₂	600	612	1.52	0.8	327*	

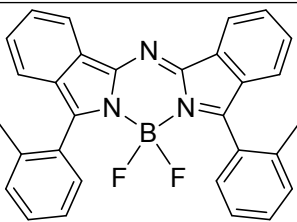
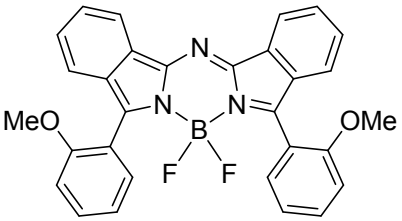
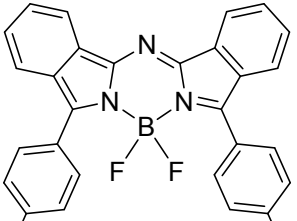
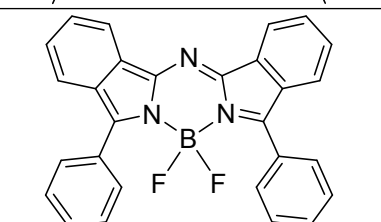
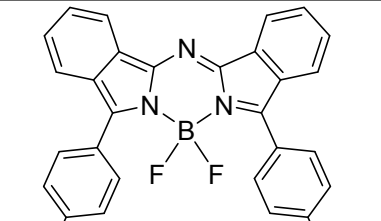
	R = F	CH ₂ Cl ₂	602	612	1.40	1.0		
		CH ₂ Cl ₂	596	604	1.58	0.9	222*	21
		CH ₂ Cl ₂	603	612	1.76	1.0	244*	21
		CH ₂ Cl ₂	612	619	1.94	0.5	185*	21
		CH ₂ Cl ₂	599	613	1.38	1.0	381*	22

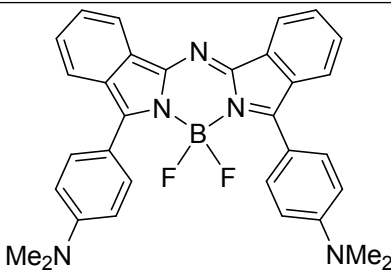
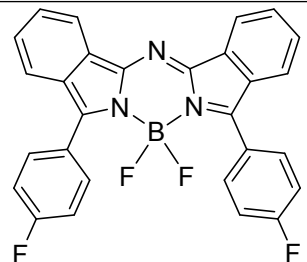
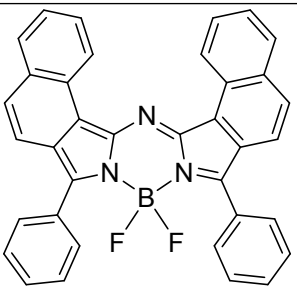
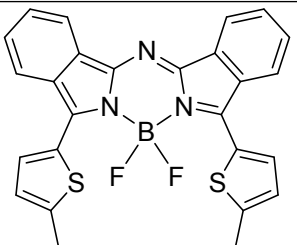
	MeOH	605	616	2.49	1.0	295*	34a
	MeOH	609	630	1.84	0.86	547*	34a
	MeOH	653	670	nd	0.34	389*	34a
	hexane	630	647		0.94	417*	18, 20
	Bu ₂ O	630	648		~1	441*	
	Et ₂ O	627	647		~1	493*	
	THF	630	650		0.96	488*	
	acetone	626	647		0.97	518*	
	MeCN	625	647	1.17	0.95	544*	
	MeOH	626	647		0.81	518*	
	hexane	633	652		0.98	460*	18, 20
	Bu ₂ O	633	654		0.92	507*	
	Et ₂ O	630	652		0.92	535*	

	THF	633	656		0.90	554*	
	acetone	630	652		0.89	536*	
	MeCN	628	652	0.977	0.88	586*	
	MeOH	629	652		0.76s	651*	
	hexane	642	667		0.90	584*	18, 20
	Bu ₂ O	642	668		0.95	606*	
	Et ₂ O	639	666		0.95	634*	
	THF	642	670		0.89	651*	
	acetone	638	667		0.86	681*	
	MeCN	637	666	0.955	0.80	683*	
	MeOH	638	667		0.73	681*	
	hexane	621	634		~1	330*	18, 20
	Bu ₂ O	621	636		0.96	380*	
	Et ₂ O	618	634		0.94	408*	
	THF	621	637		0.30	404*	
	acetone	618	631		0.033	333*	
	MeCN	617	626	1.15	0.023	233*	
	MeOH	617	629		0.060	309*	
	hexane	626	640		0.96	349*	18, 20
	Bu ₂ O	626	642		~1	398*	
	Et ₂ O	623	641		~1	451*	
	THF	626	644		0.98	446*	
	acetone	623	642		0.96	475*	
	MeCN	623	643	1.05	0.96	499*	
	MeOH	624	643		0.84	474*	

	CH ₂ Cl ₂	642	654	1.10	0.8	286*	22
	CH ₂ Cl ₂	645	657	1.24	0.8	283*	22
	THF	761	782	1.08	0.16	353	55
	C ₆ H ₆	765	785	1.13	0.21	333	
	CH ₂ Cl ₂	762	785	1.17	0.16	385	
	DMF	764	788 (ex 720 nm)	1.00	0.14	399	

	THF	738	760 (ex 700 nm)	1.37	0.29	392	55
B,O-chelate HIGHLY CONJUGATED BODIPYs							
	THF	830	832 (ex 720 nm)	0.962	0.0013	29	55
DIISOINDOLE-AZA-BODIPYs							
	CHCl ₃	715	736	0.871	0.15	399*	80
	hexane	705	725	nd	0.24	391*	81
	CH ₂ Cl ₂	712	736	0.95	0.14	458*	81
		715	748	1.06		617*	82
	MeCN	704	725	0.51	0.20	411*	81

	CH ₂ Cl ₂	302, 681	723	0.10, 0.79		18428*, 853*	82
	CH ₂ Cl ₂	300, 693	734	0.10, 0.79		19709*, 806*	82
	CH ₂ Cl ₂	314, 718	756	0.27, 0.94		18620*, 700*	82
	CH ₂ Cl ₂	305, 729	769	0.26, 0.91		19069*, 714*	82
	CHCl ₃	724	749	0.851	0.11	461*	80

	hexane	765	796	nd	0.10	509*	81
	CH ₂ Cl ₂	794	830	1.74	0.01	546*	
	MeCN	789	833	0.91	0.01	669*	
	hexane	707	726	nd	0.17	370*	81
	CH ₂ Cl ₂	713	724	0.63	0.16	213*	
	MeCN	702	726	0.44	0.19	471*	
	hexane	728	739	nd	0.30	204*	81
	CH ₂ Cl ₂	737	753	0.71	0.14	288*	
	MeCN	729	745	0.358	0.20	295*	
	CH ₂ Cl ₂	336, 793	841	0.29, 0.95		17871*, 720*	82

(*) The Stokes shift indicated with * are not reported in the literature but are calculated according to the known formula:

$$\Delta_S = (1/\lambda_{\text{abs}} - 1/\lambda_{\text{em}}) (\text{cm}^{-1})$$