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Table 1: Frequencies and Relative Intensities of B Resonance Raman Bands

B @ 95K		B @ 278 K	
ω, cm^{-1a}	Intensity ^b	ω, cm^{-1}	Intensity ^c
84	0.55		
121	0.47	122	0.35
160	0.10		
186	1.02	182	1.43
219	0.56	217	1.30
234	0.41		
312	0.08		
334	0.68	332	0.62
358	0.73	355	0.49
383	0.58	384	0.51
398	0.31	397	0.08
417	0.30	418	0.05
436	0.14	436	0.03
464	0.03	464	0.05
479	0.04	478	0.06
511	0.02	512	0.01
568	0.55	569	0.41
624	0.19	621	0.16
685	0.40	682	0.28
726	0.23	721	0.12
736	0.57	731	0.78
747	0.20	744	0.10
765	0.19	761	0.18
843	0.17	843	0.13
894	0.82	892	0.67
921	0.06	920	0.09
945	0.06	947	0.04
967	0.21	970	0.05
1000	0.37	1002	0.17
1021	0.34	1018	0.20
1065	0.03	1064	0.11
1082	0.01		
1101	0.03		
1116	0.18	1114	0.14
1133	0.24	1132	0.16
1163	0.44	1158	0.16
		1165	0.58
1185	0.06		
1229	0.10		
1242	0.04		
1269	0.10		
1280	0.04		
1302	0.02		
1336	0.08		
1346	0.03		
1369	0.05		
1382	0.04		
1393	0.07		
1465	0.01		

1516	0.04
1534	0.08
1579	0.02
1652	0.06
1673	0.02

^a Frequencies are taken from the regenerated SERDS spectra.

^b Intensities are relative to the sum of the intensities of the 726, 736 and 747 cm⁻¹ modes.

^c Intensities are relative to the sum of the intensities of the 721, 731 and 744 cm⁻¹ modes.

Table 2: Frequencies and Relative Intensities of H Resonance Raman Bands

<u>H @ 95 K</u>		<u>H @ 278 K</u>		<u>BPheo^c</u>	<u>BPheo^d</u>
<u>ω, cm⁻¹</u>	<u>Intensity^a</u>	<u>ω, cm⁻¹</u>	<u>Intensity^b</u>	<u>ω, cm⁻¹</u>	<u>ω, cm⁻¹</u>
90	0.44				
121	0.10				
139	0.37				150
184	0.09				187
209	0.15				
235	0.09				
282	0.09				
308	0.03				
336	0.44				346
359	0.08				
377 ^e	0.26				
397	0.12				
415	0.10				
430	0.07				
461	0.01				461
536	0.01				
567	0.25	563	0.39	~565	564
595	0.02	606	0.04	~590	588
618	0.03	620	0.03	~620	622
629	0.09				
658	0.34	651	0.91	654	659
679	0.03	673	0.19	~670	678
692 ^e	0.12	685 ^e	0.38		
		713	0.07	~710	711
720	0.19	724 ^e	0.16	720	724
728 ^e	0.13				
737 ^e	0.20	735 ^e	0.54		739
744 ^e	0.26	748 ^e	0.30		
753	0.22			~760	753
773	0.35	765	0.30	~780	776
794	0.15	797	0.08		
839	0.02				
845	0.06	844	0.22	~840	841
852	0.04				
860	0.04				
881	0.25	879	0.38	874	878
899 ^e	0.29	897 ^e	0.60	~900	898
921	0.05				922
929	0.09	930	0.32	932	934
935	0.10				
969	0.15	972	0.27		962
980	0.18				980
998	0.29	993	0.27	993	997
1015	0.17	1010	0.20	~1015	
1030 ^e	0.02	1023 ^e	0.08		
1056	0.06	1050	0.04		
1074	0.04	1065	0.05	~1060	1061

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1107	0.08	1103	0.05	1101	1106
1125	0.07	1117	0.04		
1139	0.13	1134	0.22	1133	1134
1169	0.03	1161	0.25		1177
1195	0.04				
1215	0.01			~1220	
1233	0.13	1230	0.15	1238	1227
1257	0.02				
1283	0.01			~1290	
1312	0.03				
1337	0.02				
1341	0.01				
1354	0.02			~1360	1357
1374	0.01			~1375	1381
1392	0.03			~1390	1396
1404	0.02			~1410	
1425	0.003				
1469	0.04			~1450	
1535	0.01				
1552	0.01			1549	
1591	0.01			1582	
1617	0.002			1618	
1629	0.01				
1667	0.004			1670	
1687	0.01				
1710	0.005			1703	
1741	0.005			1743	

^a Intensities are relative to the sum of the intensities of the 720-753 cm⁻¹ modes.

^b Intensities are relative to the sum of the intensities of the 724-748 cm⁻¹ modes.

^c FT-Raman spectrum of BPheo in tetrahydrofuran, T = 298 K, λ_{ex} = 1064 nm (Mattioli et al., 1993).

^d Site-selection emission spectra of BPheo in a di-iso-amylether film, T = 5 K, λ_{ex} = 765 nm (Renge et al., 1987).

^e Peaks which may arise from or contain some contribution from B scattering.

Table 3: Frequencies and Relative Intensities of P Resonance Raman Bands

P @ 95K		P @ 278 K	
ω, cm^{-1}	Intensity ^a	ω, cm^{-1}	Intensity ^b
36	0.31	33	0.22
64	0.32	70	0.12
82	0.34		
101	0.79	96	0.36
132	0.33	127	1.05
168	0.34	145	0.07
179	0.44	187	0.18
204	0.61	204	0.38
262	0.57		
291	0.45		
332	0.97	332	0.66
		385	0.71
476	0.26	484	0.09
520	0.58		
560	0.31	563	0.11
577	0.55	586	0.09
616	0.23	622	0.07
688	0.47	685	0.24
733	1.0	730	1.0
763	0.29		
780	0.21		
790	0.07		
897	0.23	900	0.74
926	0.23	932	0.16
949	0.36		
970	0.39		
990	0.09		
1010	0.44	1011	0.03
1039	0.06		
1060	0.14	1050	0.15
		1070	0.07
1109	0.16	1099	0.03
1131	0.26		
1154	0.13	1163	0.24
1170	0.27		
1195	0.05		
1255	0.09	1257	0.03
1283	0.05	1278	0.11
1609	0.08		
1618	0.02		
1650	0.06		
1681	0.11		

^a Intensities are relative to the 733 cm^{-1} mode.^b Intensities are relative to the 730 cm^{-1} mode.