Highly Sensitive Water-soluble System to Sense Glucose in Aqueous Solution

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Electronic Supplementary Information (ESI†)

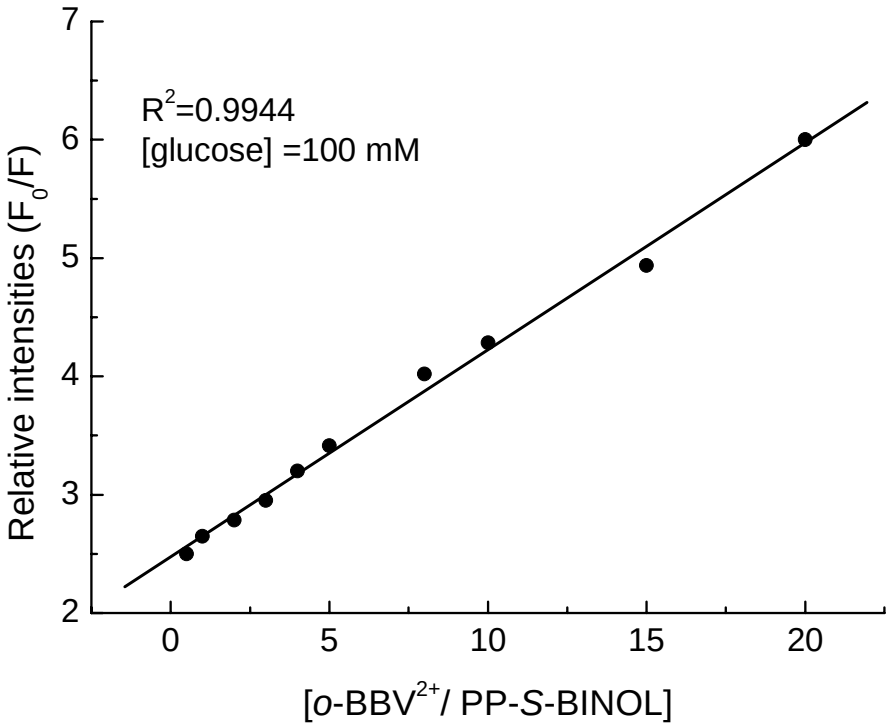

Fig. S1 Stern-Volmer plot of PP-*S*-BINOL (4.0×10^{-6} M) quenching by *o*-BBV in the present of glucose (100 mM) at pH 7.4. The molarity of PP-*S*-BINOL was calculated according to the minimum structure unit of polymer.

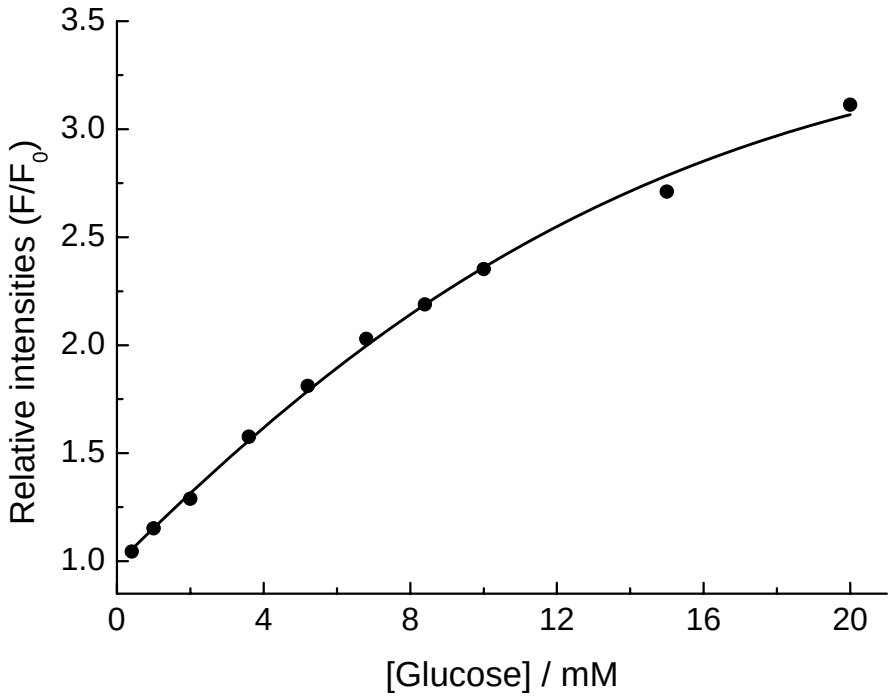

Fig. S2 The amplified fluorescence quenching of PP-*S*-BINOL (4.0×10^{-6} M) and *o*-BBV (4.0×10^{-5} M) with the addition of glucose in pH 7.4 phosphate buffer solution. The molarity of PP-*S*-BINOL was calculated according to the minimum structure unit of polymer.

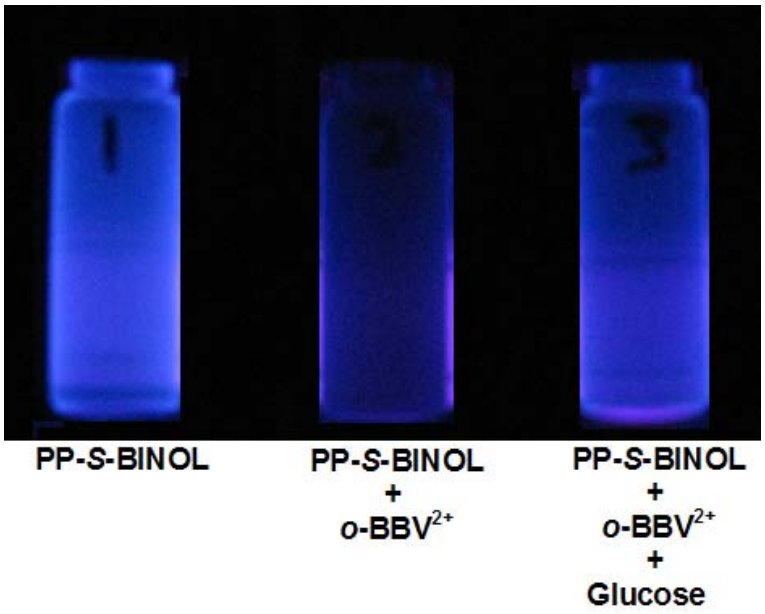

Fig. S3 The colour change of PP-S-BINOL (2.0 ×10-4 M) solution by introduction of o-BBV (2.0 ×10-4 M) followed by glucose 50.0 mM in pH 7.4 phosphate buffer solution. The solutions were irradiated by λ365 nm UV-Vis light.

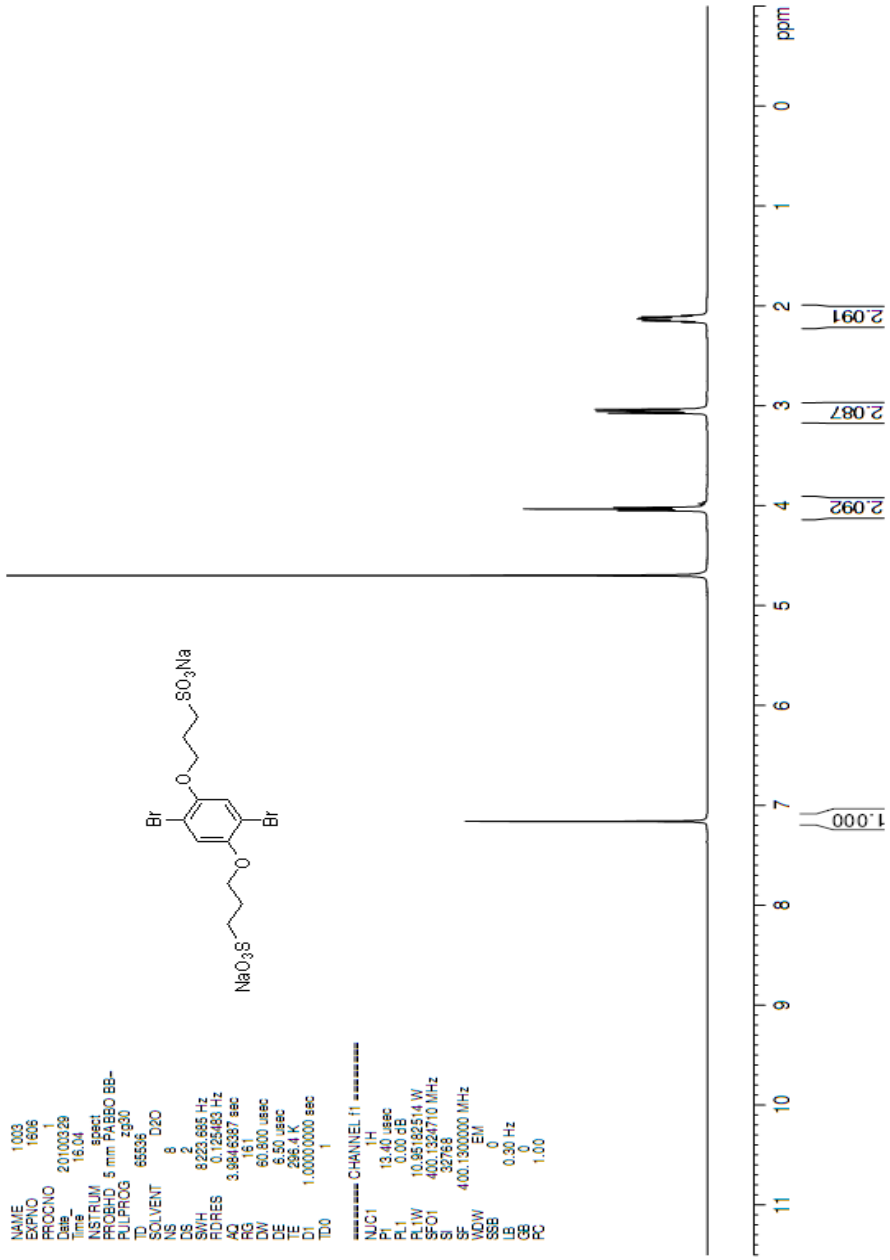

Fig. S4 400 MHz ^{1}H NMR of 1,4-dibromo-2,5-bis(3–sulfonatopropoxy)benzene in D_2O.

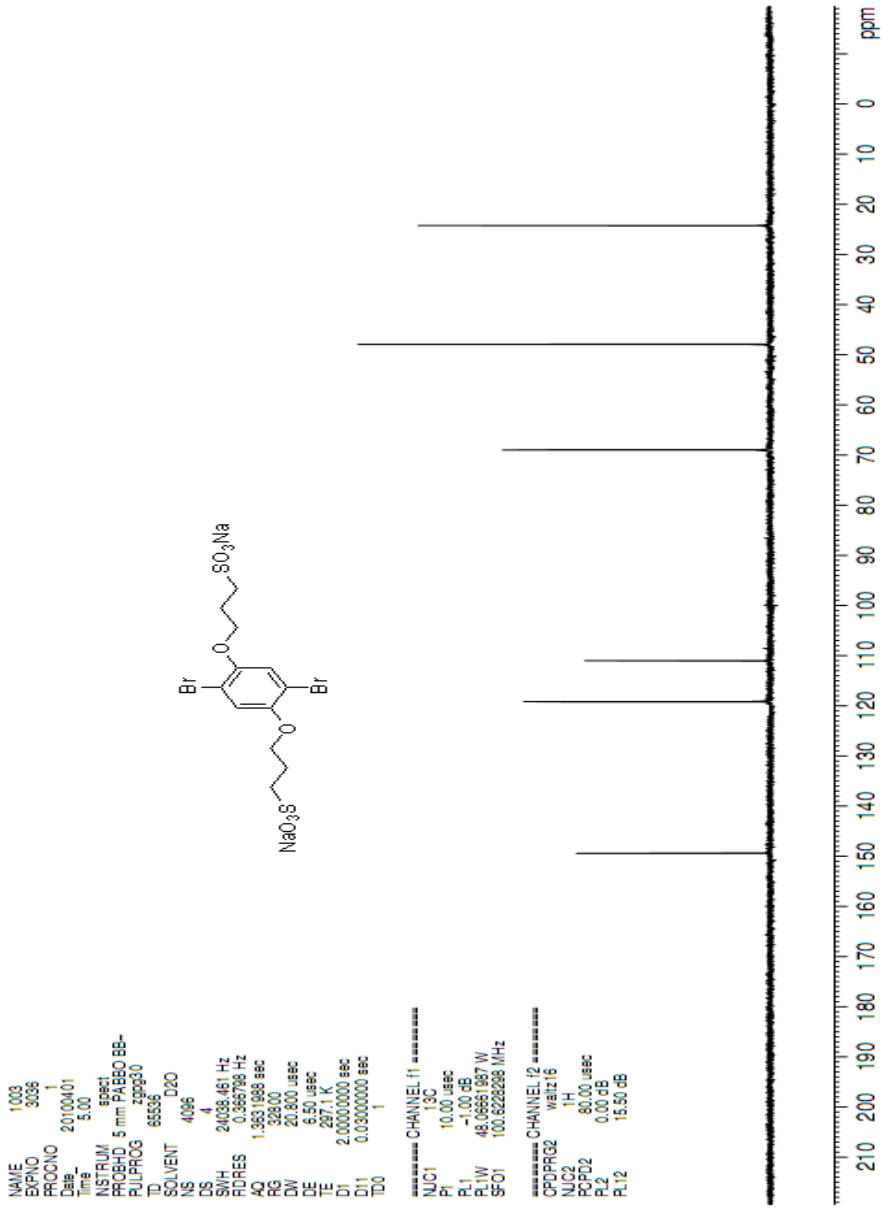

Fig. S5 100 MHz ^{13}C NMR of 1,4-dibromo-2,5-bis(3-sulfonato-propoxy)benzene in D_2O.

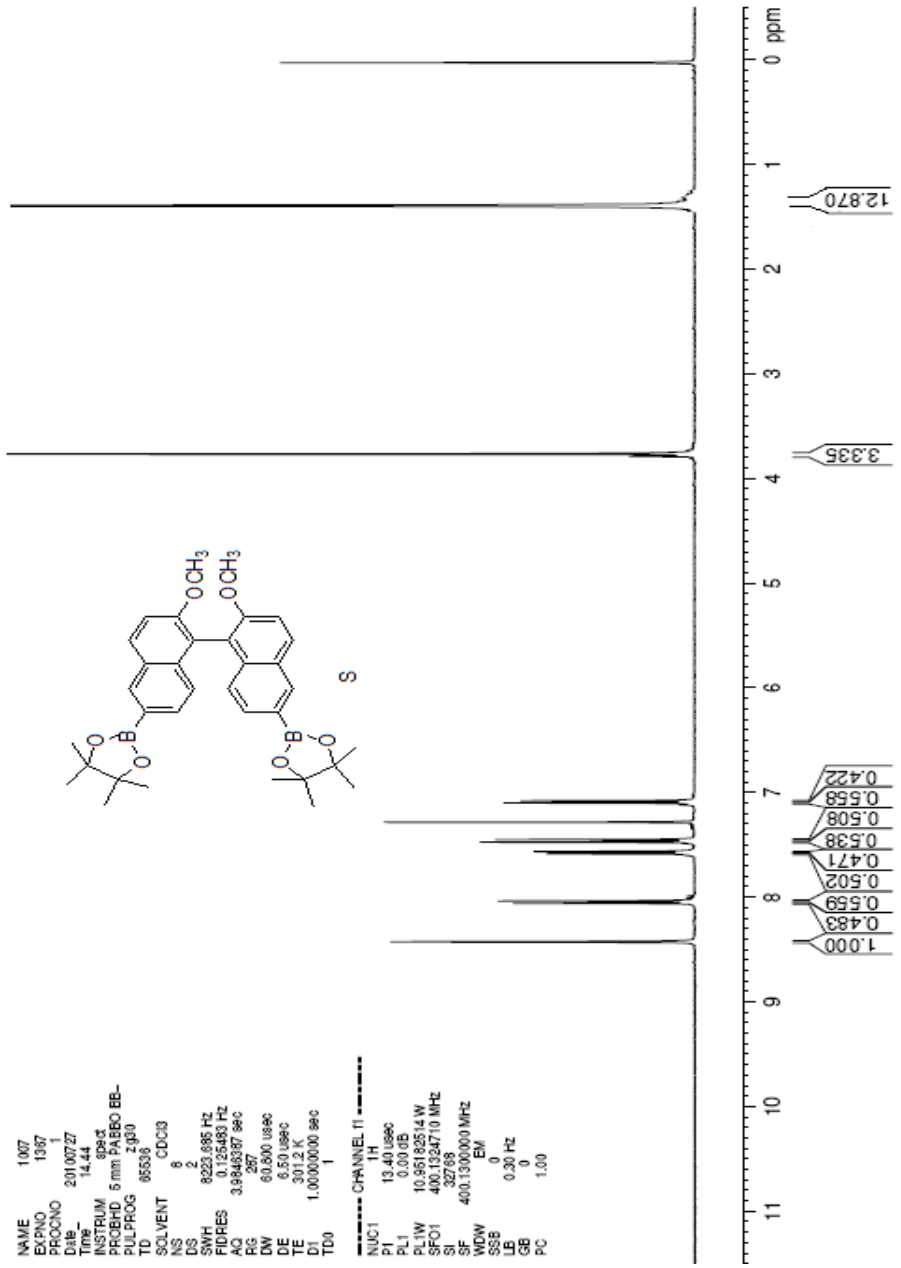

Fig. S6 400 MHz ^{1}H NMR of (S)-2,2'-dimethoxy-6,6'-bis-(4,4,5,5-tetramethyl-1,3,2-dioxaborolane)-1,1'-naphthalene in $CDCl_3$.

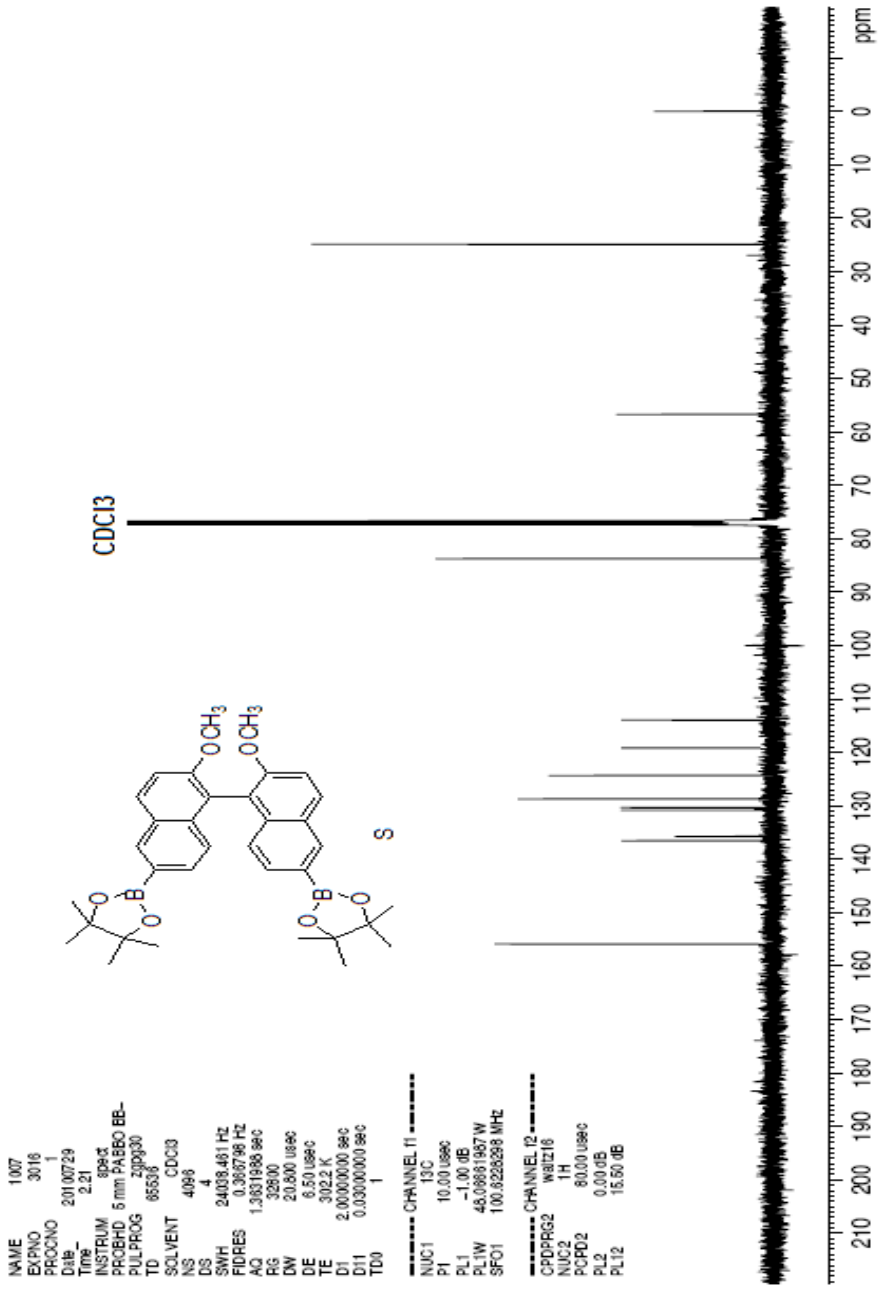

Fig. S7 100 MHz ^{13}C NMR of (S)-2,2'-dimethoxy-6,6'-bis-(4,4,5,5- tetramethyl-1,3,2-dioxaborolane)-1,1'-naphthalene in $CDCl_3$.

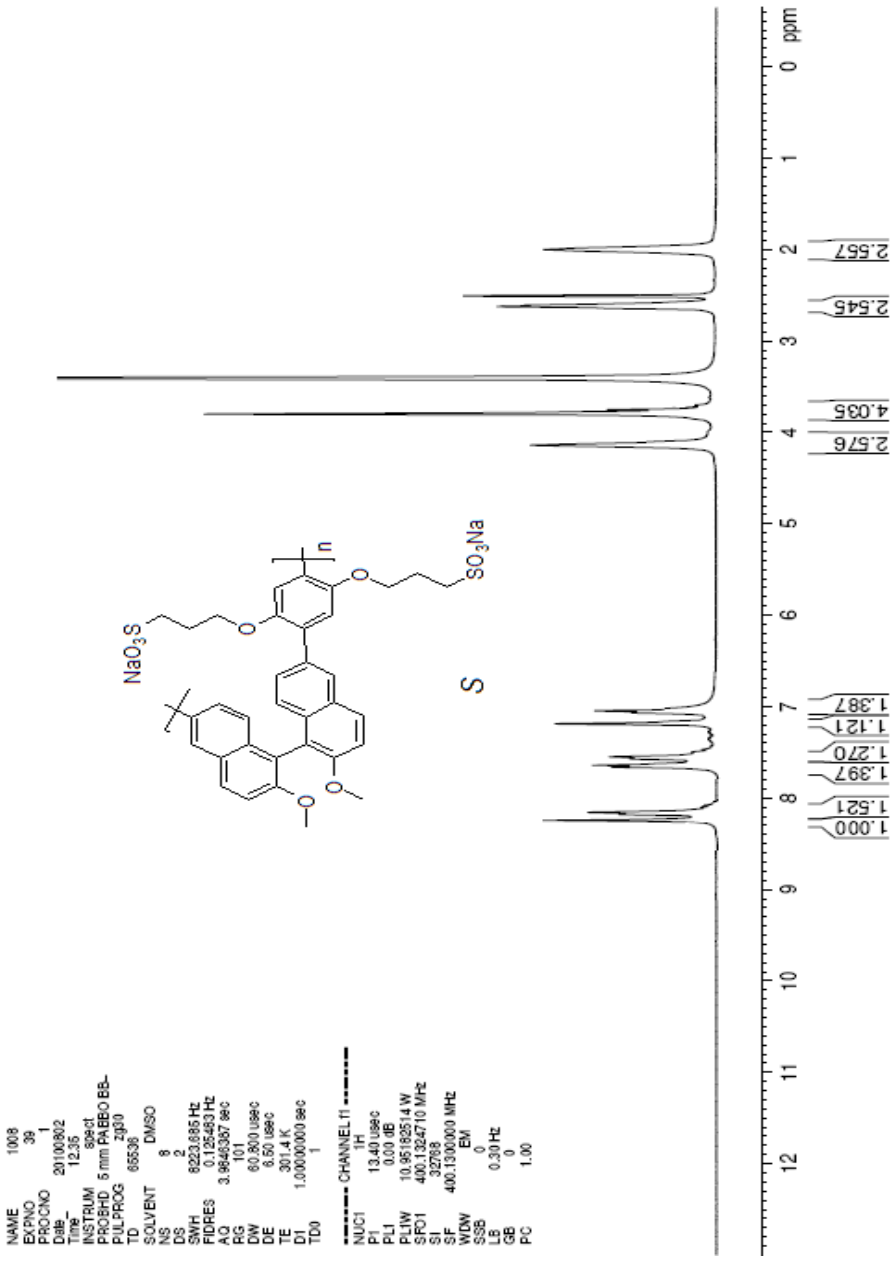

Fig. S8 400 MHz ^{1}H NMR of PP-*S*-BINOL in *d*-DMSO.

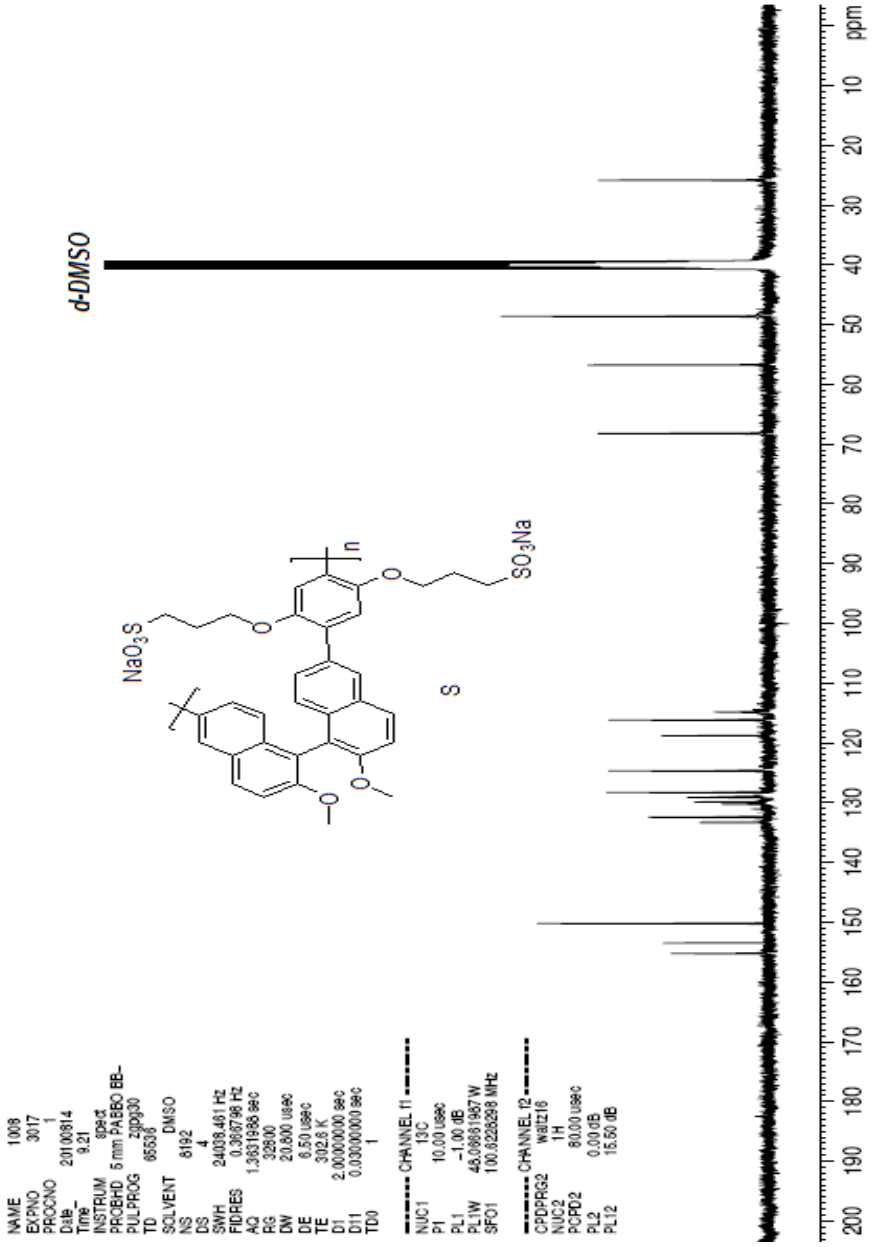

Fig. S9 100 MHz ^{13}C NMR of PP-*S*-BINOL in *d*-DMSO.

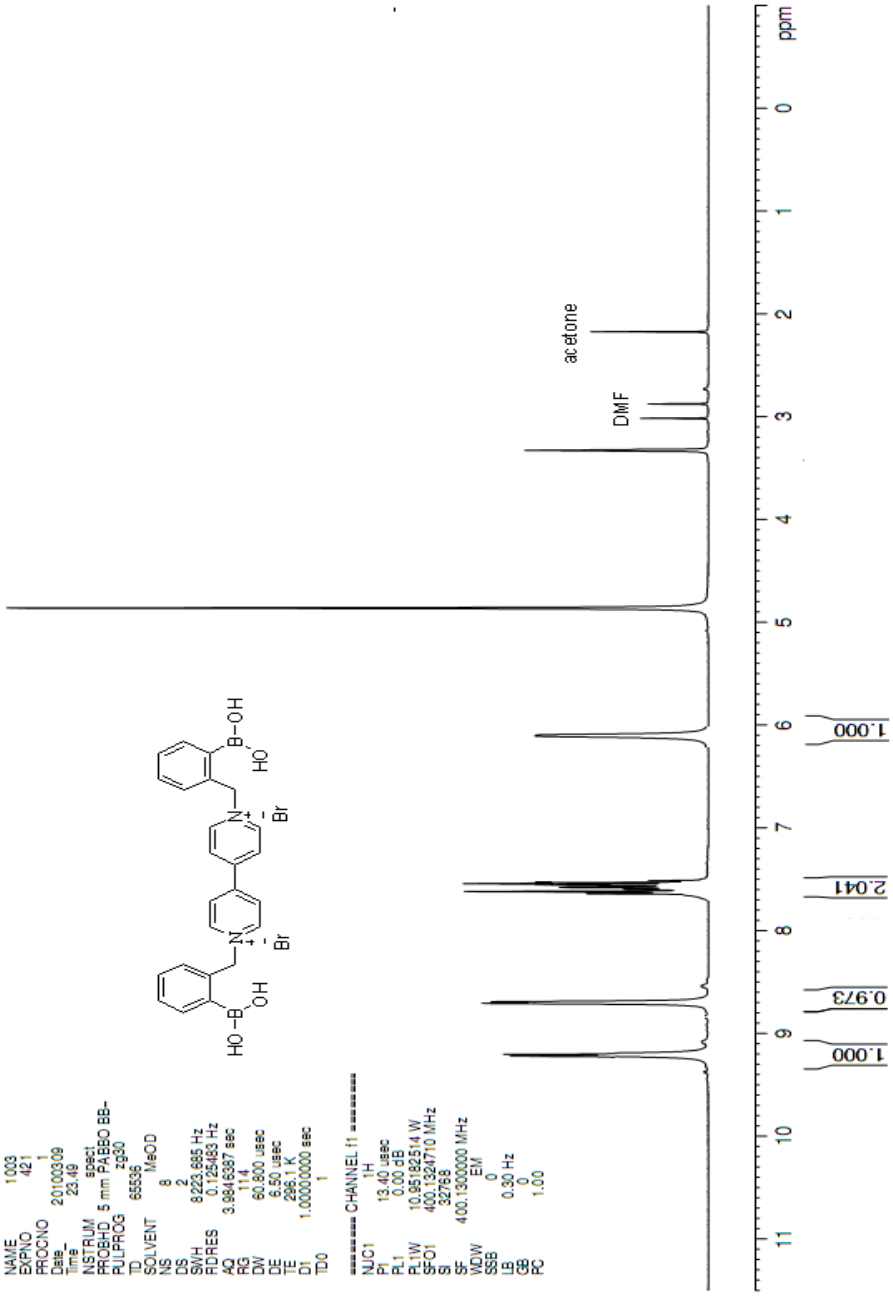

Fig. S10 400 MHz ^{1}H NMR of *o*-BBV in CD_3OD.

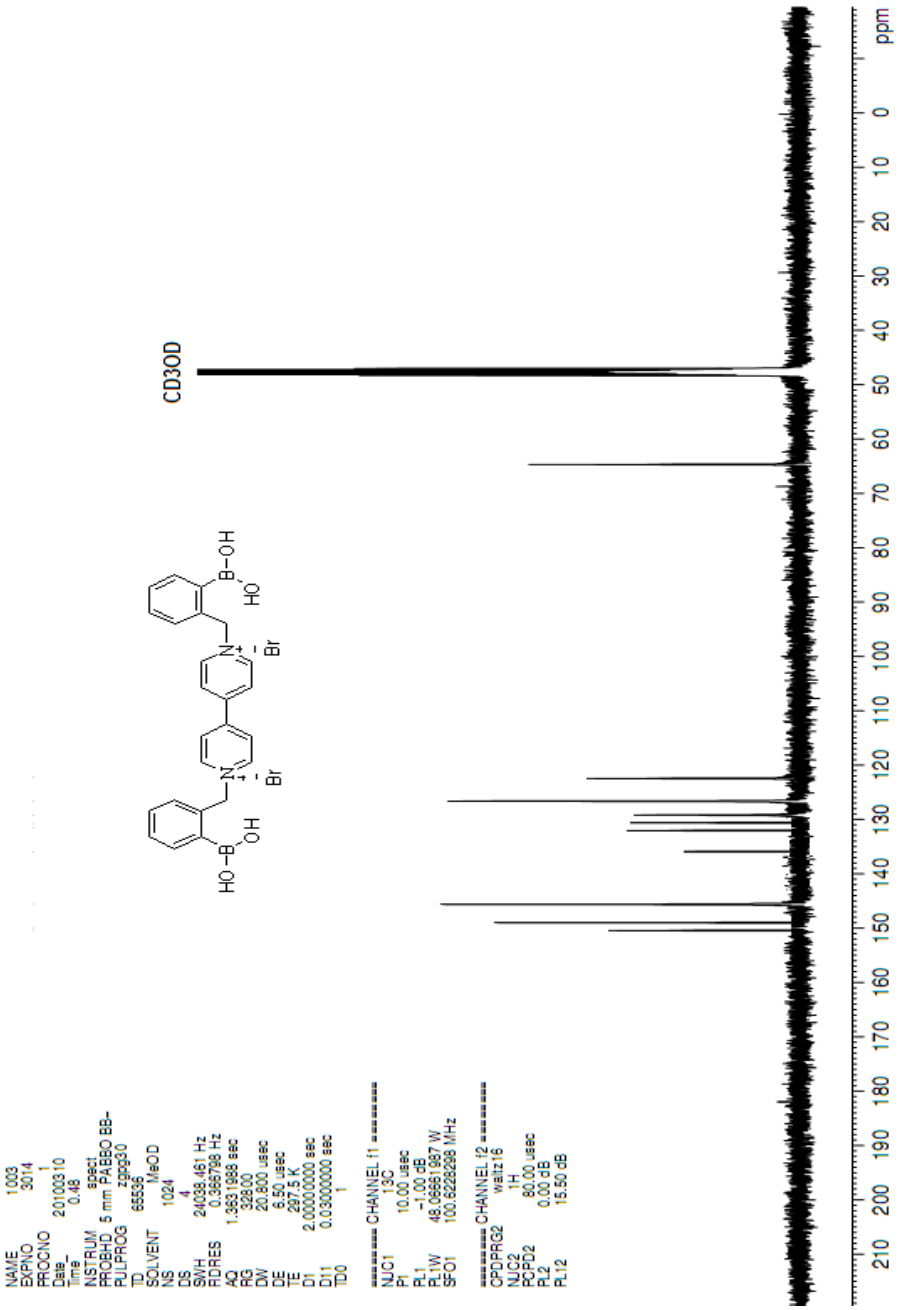

Fig. S11 100 MHz ^{13}C NMR of *o*-BBV in CD_3OD.