Electronic Supplementary Information (ESI)

Biindoles-based double D-π-A branched organic dyes for efficient dye-sensitized solar cells

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Fig. S1 $^1$H NMR of compound 2 in acetone-$d_6$.

Fig. S2 $^{13}$C NMR of compound 2 in acetone-$d_6$. 
Fig. S3 $^1$H NMR of compound 3 in CDCl$_3$.

Fig. S4 $^{13}$C NMR of compound 3 in CDCl$_3$. 

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Fig. S5 $^1$H NMR of compound 4a in CDCl$_3$.

Fig. S6 $^{13}$C NMR of compound 4a in CDCl$_3$. 
Fig. S7 $^1$H NMR of compound 4b in CDCl$_3$.

Fig. S8 $^{13}$C NMR of compound 4b in CDCl$_3$. 
Fig. S9 $^1$H NMR of compound 4c in CDCl$_3$.

Fig. S10 $^{13}$C NMR of compound 4c in CDCl$_3$. 
Fig. S11 $^1$H NMR of compound JY11 in DMSO-$d_6$. 

Fig. S12 $^{13}$C NMR of compound JY11 in DMSO-$d_6$. 

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Fig. S13 $^1$H NMR of compound JY12 in DMSO-$d_6$.

Fig. S14 $^{13}$C NMR of compound JY12 in DMSO-$d_6$. 
Fig. S15 $^1$H NMR of compound JY13 in DMSO-$d_6$.

Fig. S16 $^{13}$C NMR of compound JY13 in DMSO-$d_6$. 