

Electronic Supplementary Information:

## Substituent-Dependent Backward Reaction in Mechanofluorochromism of Dibenzoylmethanoboron Difluoride Derivative

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**Table 1** The rate constants of thermally backward reaction of BF<sub>2</sub>DBM derivatives observed in various temperature obtained by non-linear least square fitting.

Temperature / K	Rate constant / min <sup>-1</sup> (Pre-exponential factor)									
	abBF <sub>2</sub>		2aBF <sub>2</sub>		2bBF <sub>2</sub>		2cBF <sub>2</sub>		2dBF <sub>2</sub>	
	Faster	Slower	Faster	Slower	Faster	Slower	Faster	Slower	Faster	Slower
288			0.145 (0.48)	0.0124 (0.49)						
293					0.125 (0.50)	0.0136 (0.43)				
295			0.202 (0.76)	0.0195 (0.18)						
296	0.484 (0.55)	0.0302 (0.44)								
298							0.207 (0.83)	0.0343 (0.08)	0.0599 (0.37)	0.00249 (0.33)
303	1.02 (0.79)	0.0386 (0.17)	0.353 (0.58)	0.0305 (0.36)	0.168 (0.54)	0.0196 (0.36)	0.240 (0.79)	0.0390 (0.17)	0.0763 (0.71)	0.00317 (0.19)
308			0.483 (0.37)	0.0389 (0.54)			0.271 (0.52)	0.0451 (0.39)		
313	1.35 (0.84)	0.0473 (0.14)			0.203 (0.65)	0.0247 (0.33)	0.299 (0.72)	0.0525 (0.19)	0.105 (0.49)	0.00433 (0.21)
318			0.785 (0.03)	0.0444 (0.86)			0.369 (0.32)	0.0624 (0.57)		
323	1.83 (0.60)	0.0583 (0.40)			0.315 (0.56)	0.0283 (0.36)			0.138 (0.27)	0.00517 (0.38)
333	5.11 (0.50)	0.117 (0.43)			0.379 (0.65)	0.0320 (0.26)			0.184 (0.41)	0.00754 (0.35)