

Supporting Information for

Aggregation-induced enhanced emission-type cruciform luminophore constructed by carbazole exhibiting mechanical force-induced luminescent enhancement and chromism

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Table S1. Electrochemical data and HOMO/LUMO energy levels of **MDCS-BC**.

Compound	E_{ox}^a (V)	HOMO ^b (eV)	LUMO ^c (eV)	E_g^d (eV)
MDCS-BC	1.15	-5.49	-2.57	2.92

^aOxidation potential was decided with Ag/Ag⁺ electrode as reference.

^bHOMO energy levels was obtained by comparing with an external reference, the ferrocene/ferrocenium (Fc/Fc⁺, 4.8 eV relative to vacuum).

^cThe LUMO energy level was estimated by the equation: $E_{\text{LUMO}} = E_{\text{HOMO}} + E_g$.

^d E_g was estimated from the onset of the absorption spectra ($E_g = 1240/\lambda_{\text{onset}}$).

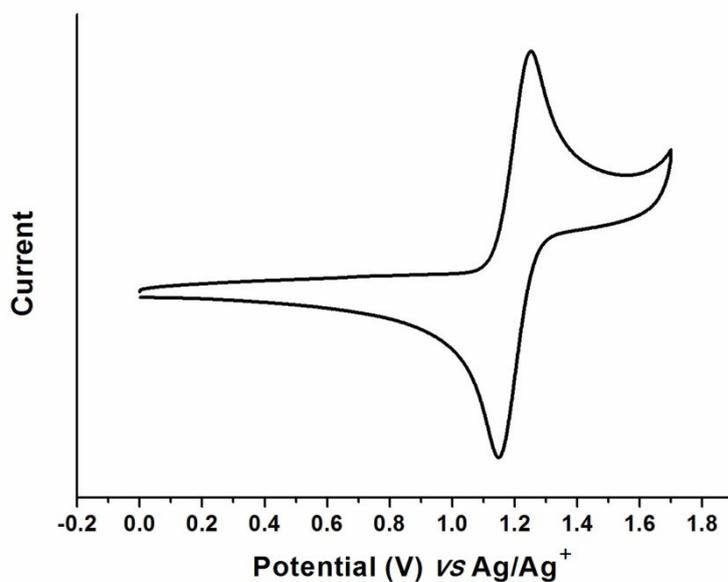


Fig. S1 Cyclic voltammogram of **MDCS-BC** measured in DCM with tetrabutylammonium hexafluorophosphate (0.1 mol/L) as electrolyte at a scan rate of 50 mV/s.

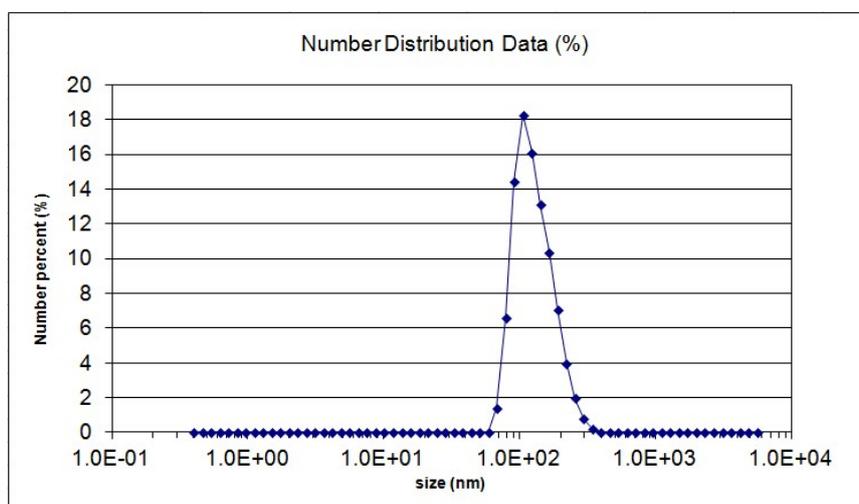


Fig. S2 DLS data of **MDCS-BC** (1.0×10^{-5} mol L⁻¹) in THF/water ($f_w = 95\%$).

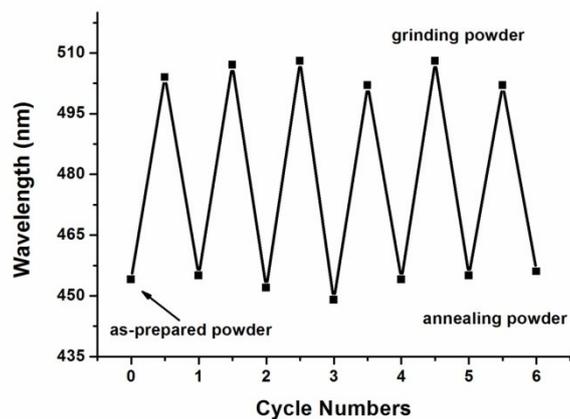


Fig. S3 Maximum fluorescent emissions of **MDCS-BC** (at 230 °C) upon repeating treated by grinding and heating.

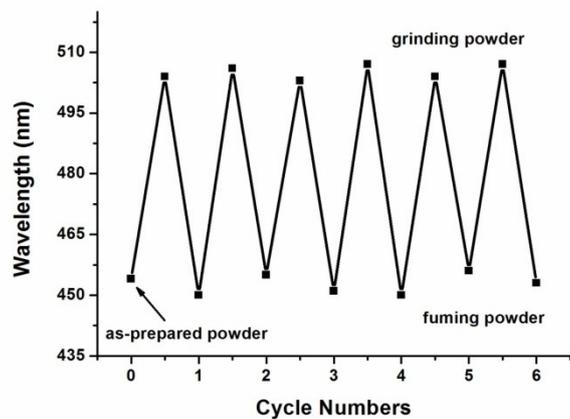


Fig. S4 Maximum fluorescent emissions of **MDCS-BC** upon repeating treated by grinding and fuming with DCM.

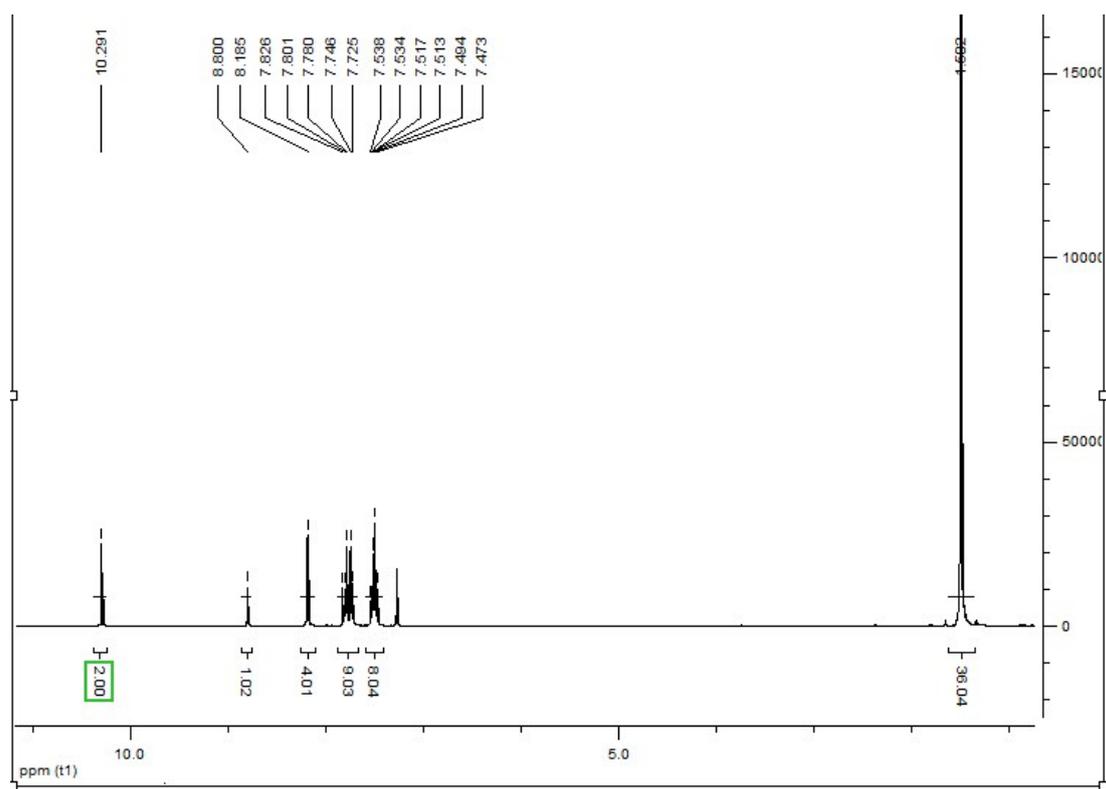


Fig. S5 ^1H NMR (400 MHz) spectrum of **3**

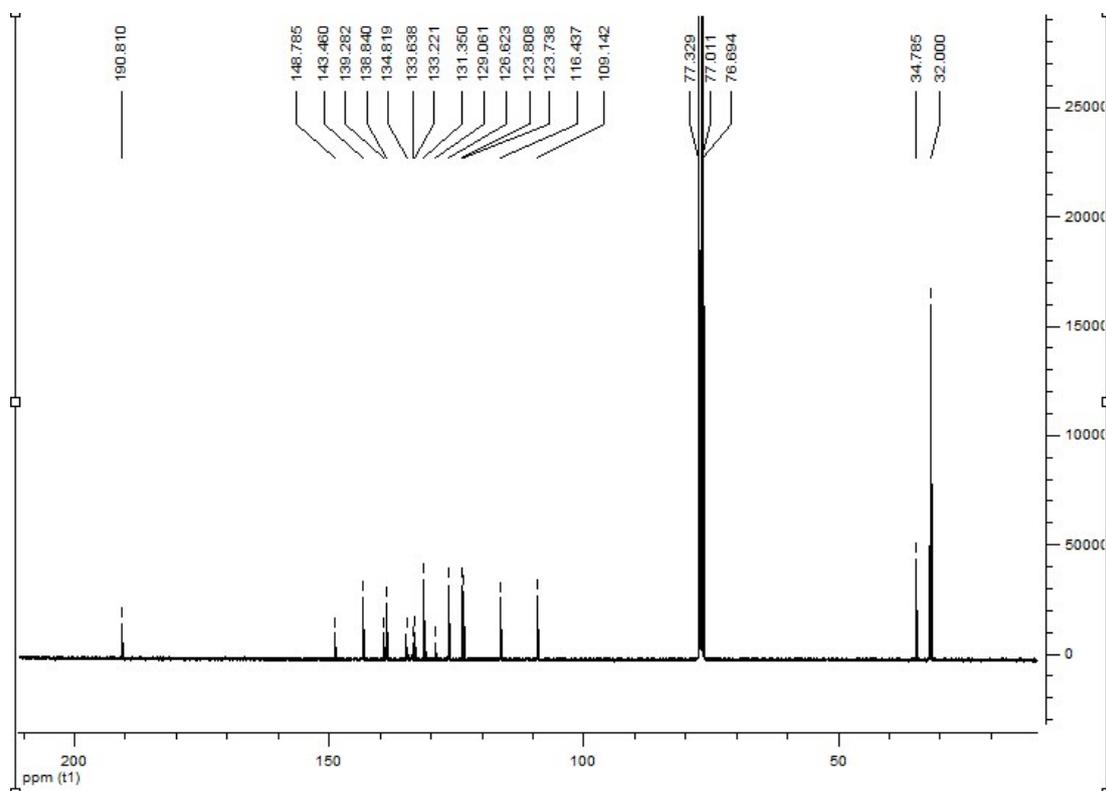


Fig. S6 ^{13}C NMR (100 MHz) spectrum of **3**

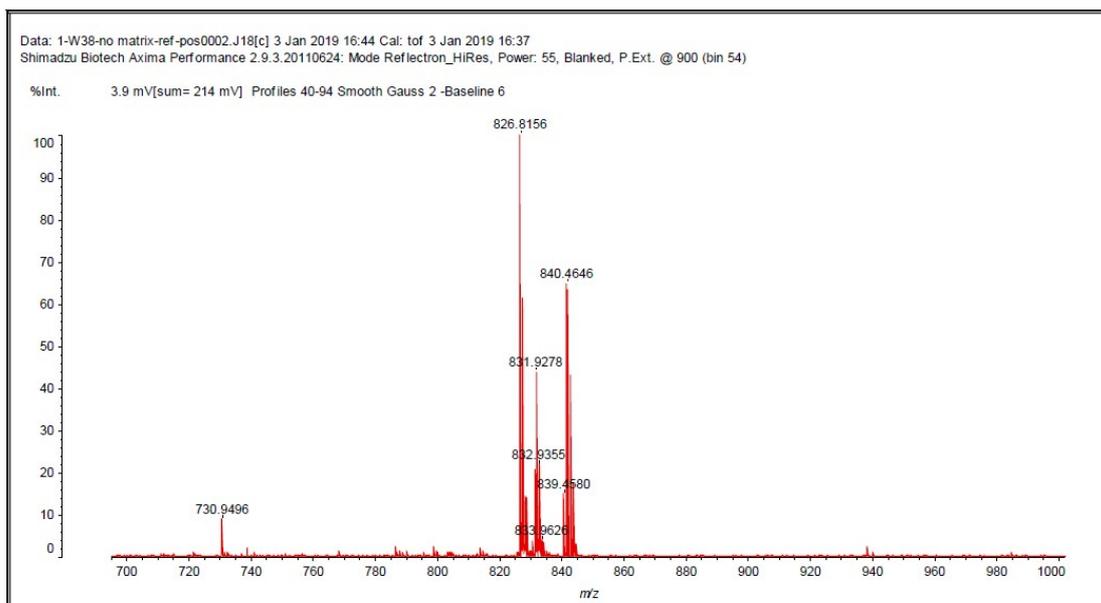


Fig. S7 MALDI/TOF MS spectrum of **3**.

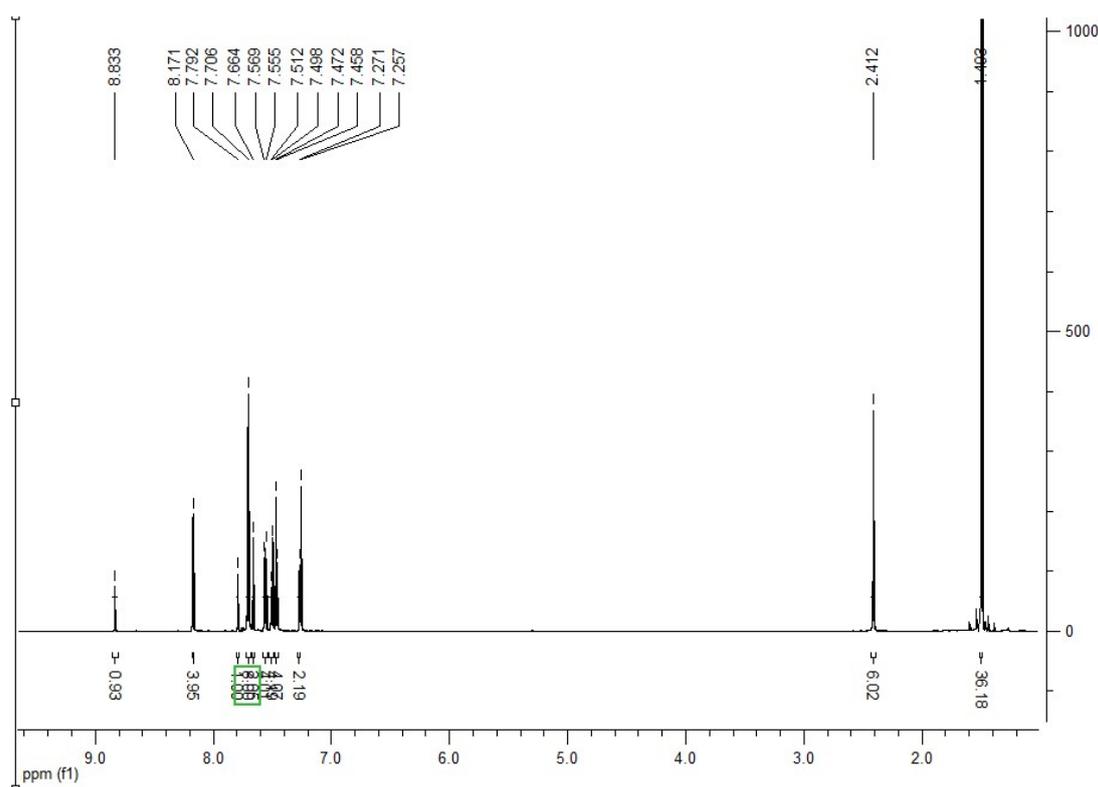


Fig. S8 ^1H NMR (600 MHz) spectrum of **MDCS-BC**.

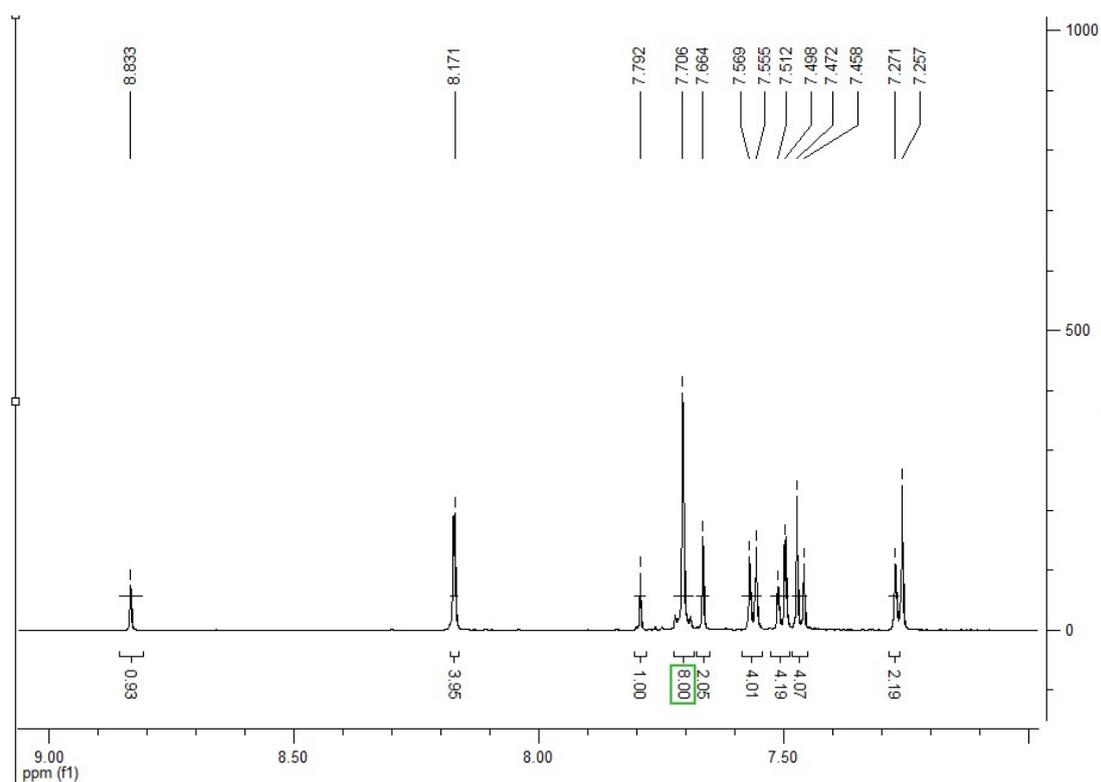


Fig. S9 ^1H NMR (600 MHz) spectrum of **MDCS-BC**.

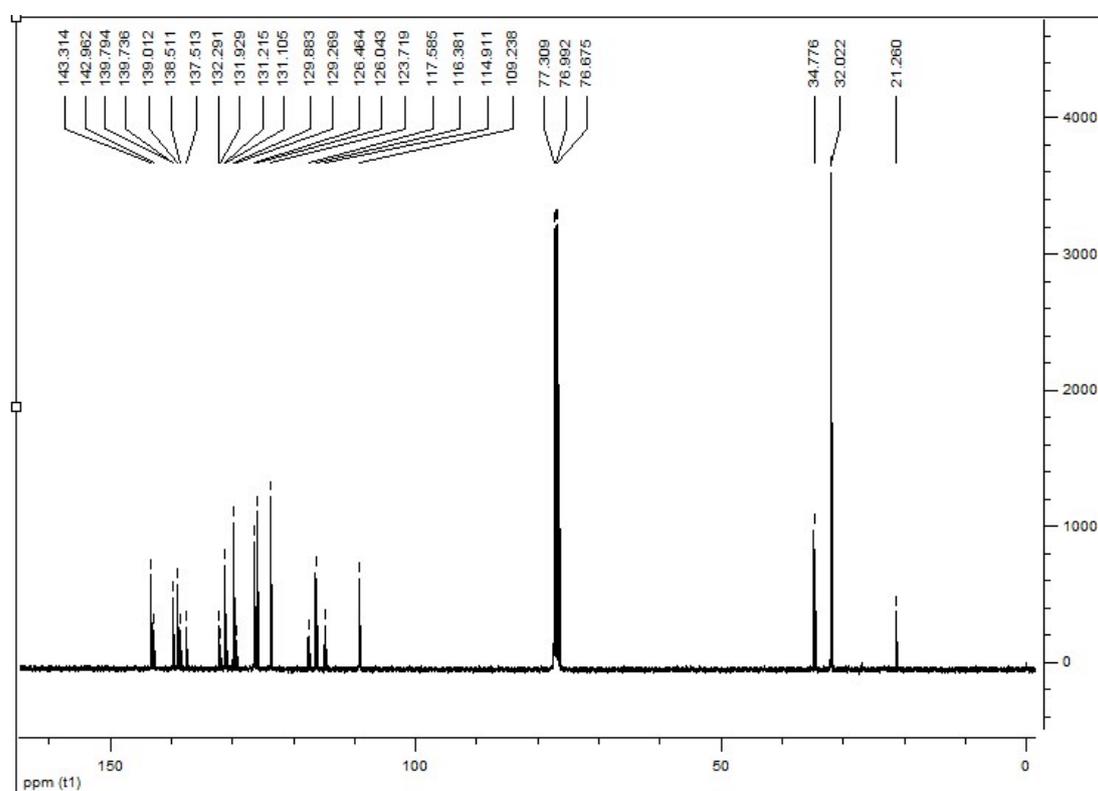


Fig. S10 ^{13}C NMR (150 MHz) spectrum of **MDCS-BC**.

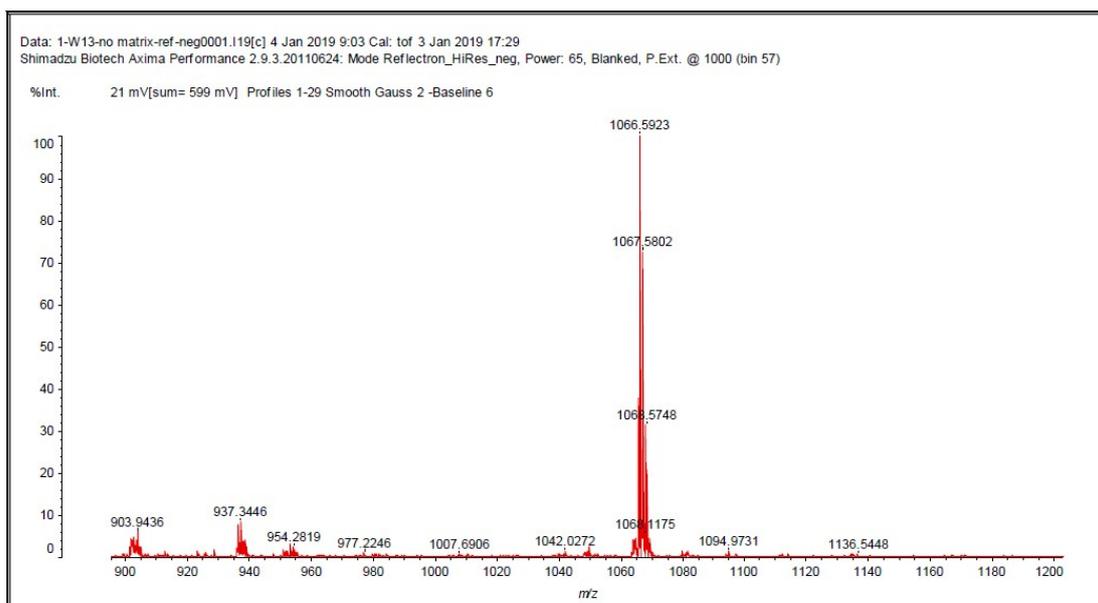


Fig. S11 MALDI/TOF MS spectrum of **MDCS-BC**.

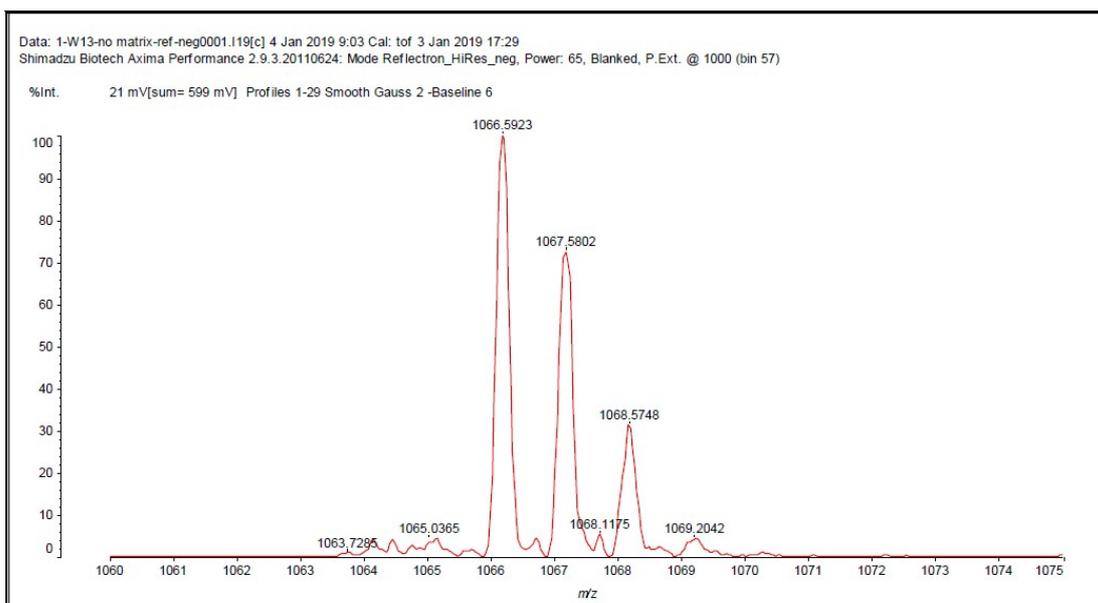


Fig. S12 MALDI/TOF MS spectrum of **MDCS-BC**.