

## Supplementary Information

### **Improved energy storage performance of NBTM/STM multilayer films via designing the stacking order**

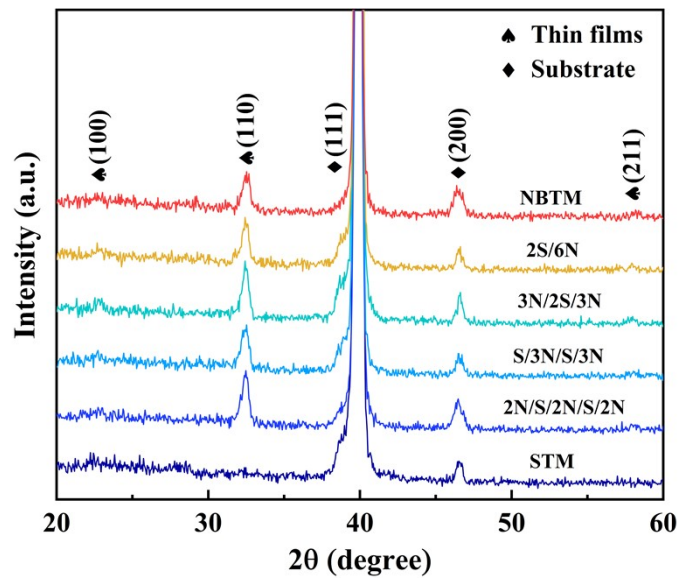
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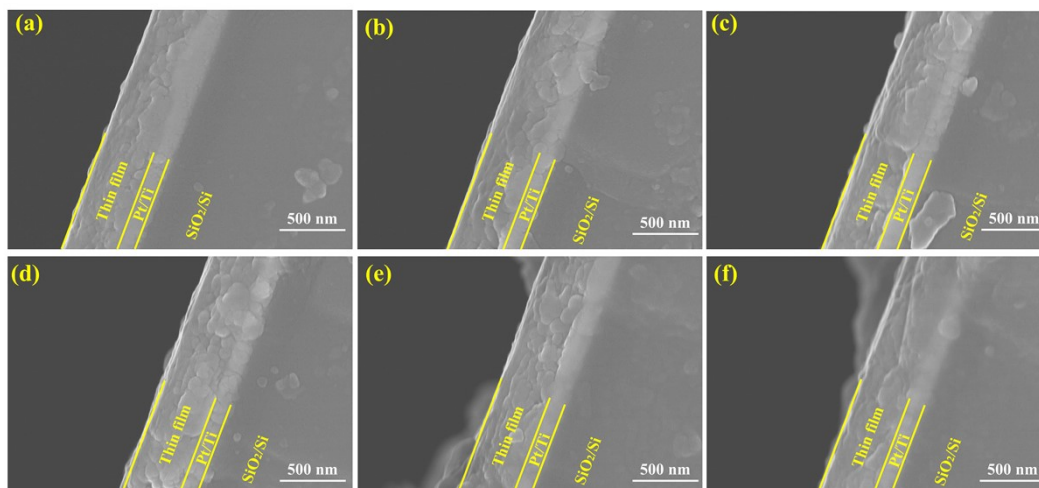
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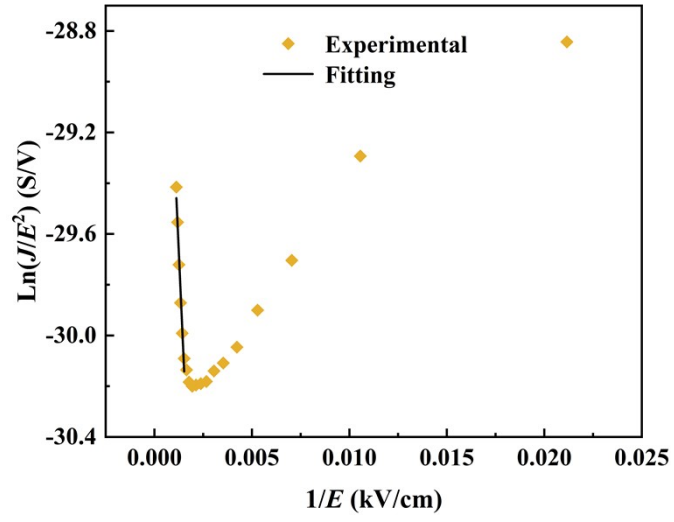
E-mail: 1920300043@stu.hrbust.edu.cn and tdzhang@hrbust.edu.cn



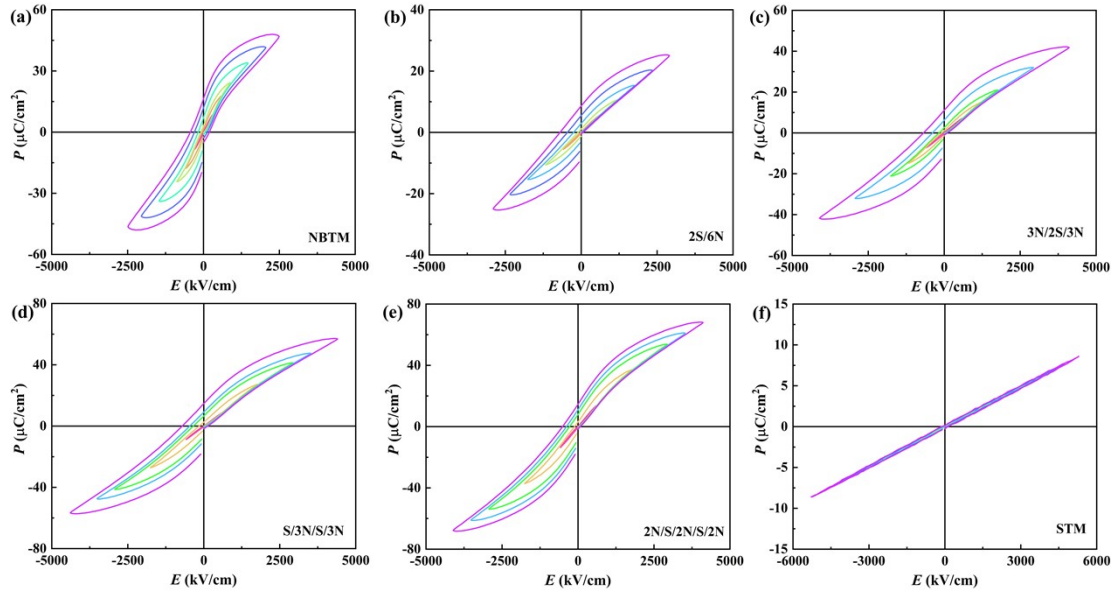
**Fig. S1** The XRD spectrum of the NBTM film, NBTM/STM multilayer films, and STM film.



**Fig. S2** Cross-section SEM images of the (a) NBTM, (b) 2S/6N, (c) 3N/2S/3N, (d) S/3N/S/3N, (e) 2N/S/2N/S/2N, and (f) STM films.



**Fig. S3** Linear fitting of  $1/E$  and  $\ln(J/E^2)$  of the 2S/6N film.



**Fig. S4**  $P$ - $E$  loops of the (a) NBTM, (b) 2S/6N, (c) 3N/2S/3N, (d) S/3N/S/3N, (e) 2N/S/2N/S/2N, and (f) STM films.

**Table 1**

Comparison of energy storage performance of the representative films

Materials	$W_{\text{rec}}$ (J/cm <sup>3</sup> )	$\eta$ (%)	$E_b$ (kV/cm)	Thermal stability range (°C)	Ref.
NBTM/STM	68.9	54.4	4300	20-200	This work
SBLTM	47.7	66.5	3307	30-110	[1]
(Sr <sub>0.85</sub> Bi <sub>0.1</sub> )Ti <sub>0.99</sub> Mn <sub>0.01</sub> O <sub>3</sub>	24.4	64.7	1982	30-110	[2]
(Sr <sub>0.925</sub> Bi <sub>0.05</sub> )Ti <sub>0.99</sub> Mn <sub>0.01</sub> O <sub>3</sub>	23.6	67.5	2281	-	[2]
BFMO-SBT	61	75	3000	-50-200	[3]
NKBT-BST	54.8	76.4	3846	20-200	[4]
BMT/NBT	53.9	74.3	4105	15-115	[5]
BMT-STO	109.7	80.6	3393	25-200	[6]

## References

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