Supplementary Materials

Article

A Facile Way to Prolong Service Life of Double Base Propellant

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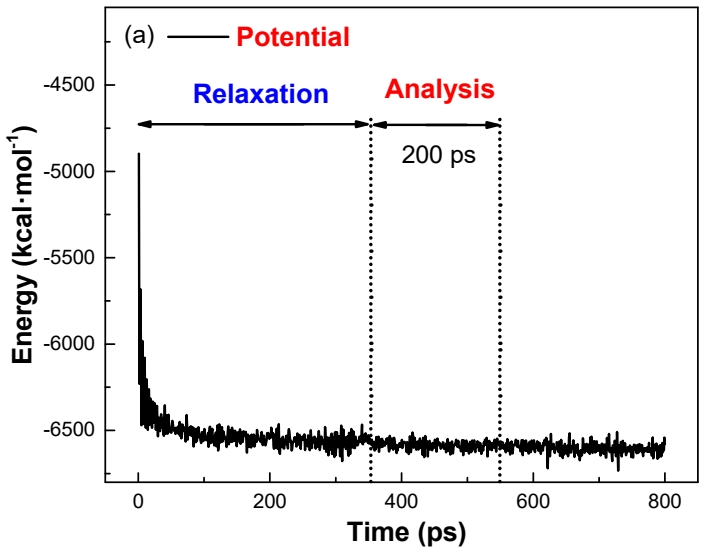
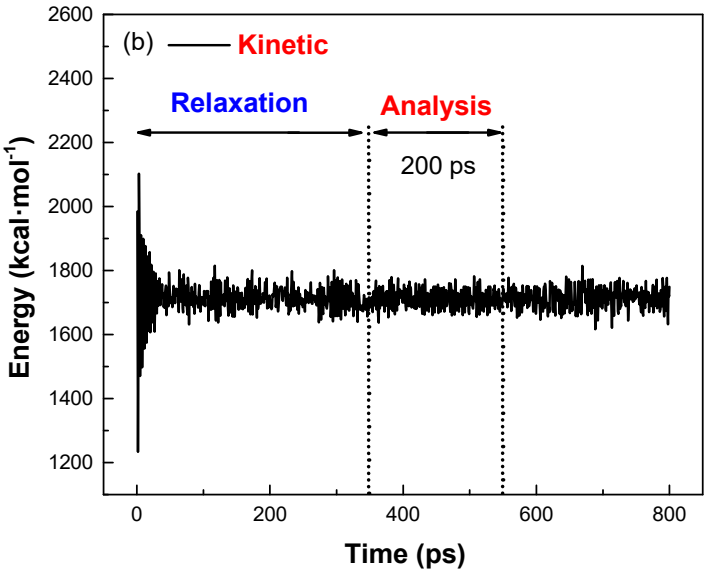




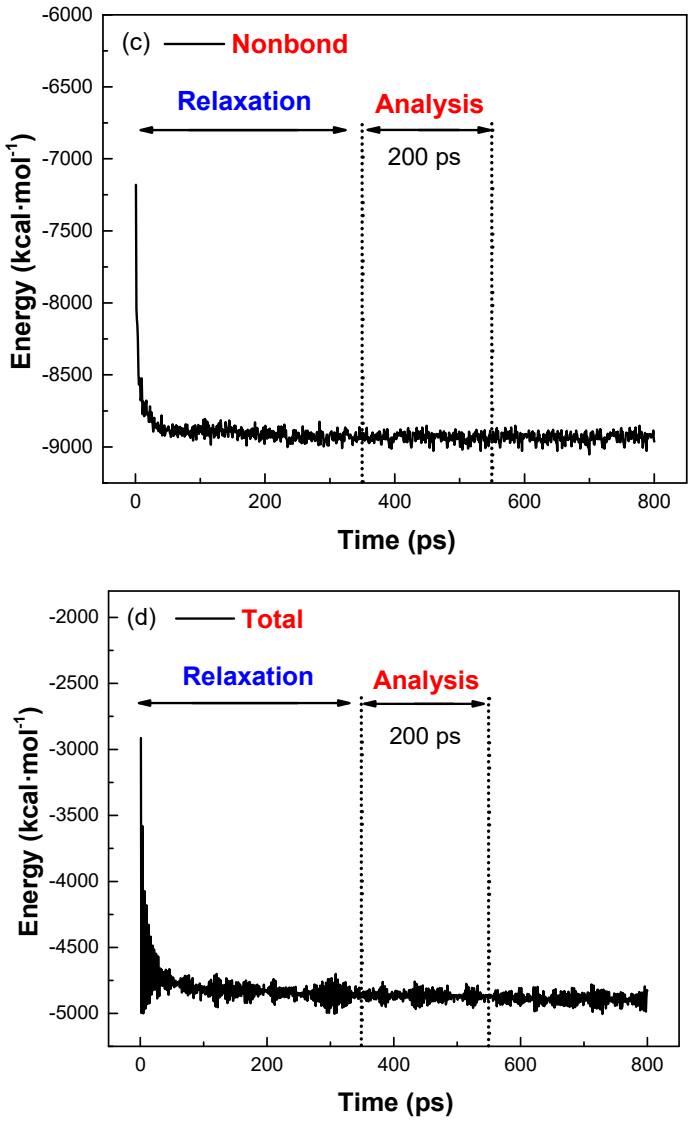


Figure S1. Energy profiles in dynamic simulations. (**a**) Potential; (**b**) kinetics; (**c**) nonbond; and (**d**) total.

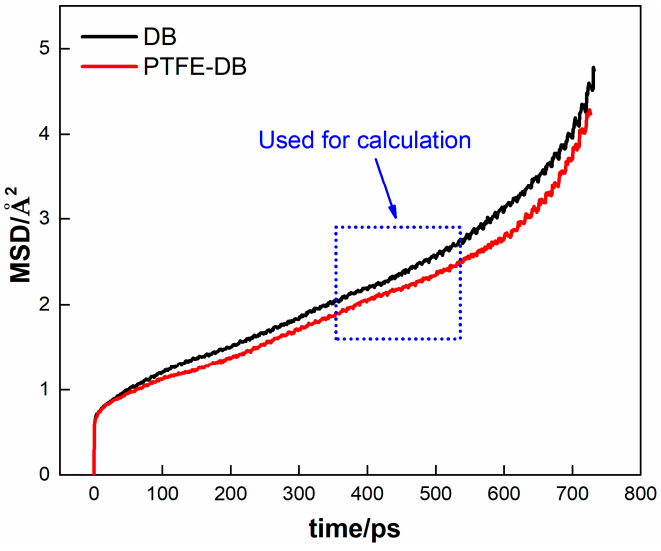


Figure S2. A typical MSD vs. t curve.

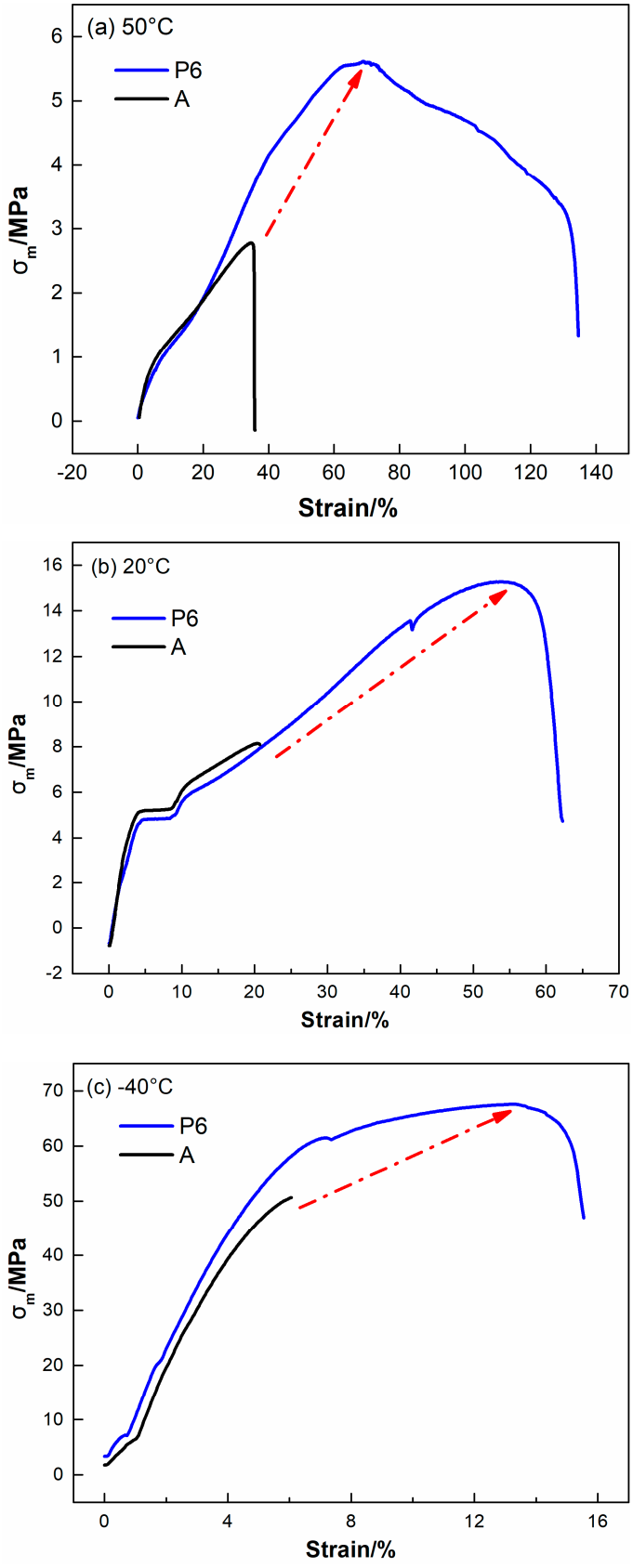


Figure S3. Stress-strain curves of the two propellants, (**a**) 50 °C; (**b**) 20 °C; and (**c**) −40 °C;

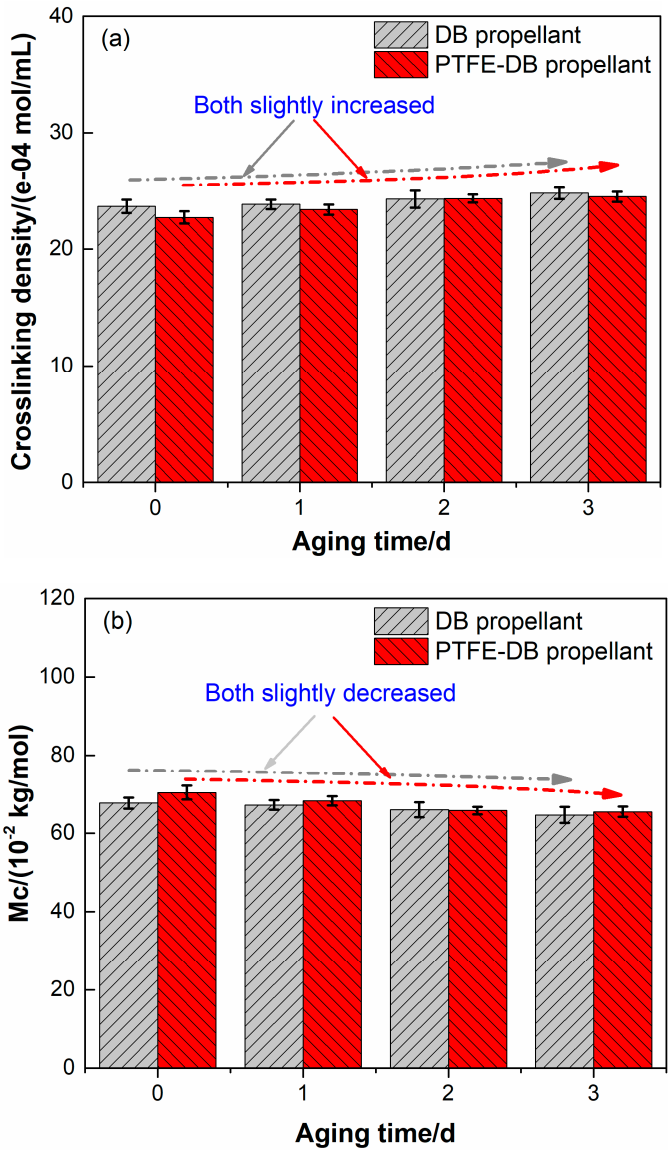


Figure S4. Crosslinking density (**a**) and molecular weight between crosslinking points (**b**).

Table S1. Mass loss of NG in the two DB propellants.

Sample	NG content/%				Reduced by/%			
	Unaged	1d	2d	3d	Unaged	1d	2d	3d
A	48.5	43.8	39.4	36.1	-	9.69	18.8	25.6
P6	48.5	45.6	43.2	40.7	-	5.98	10.9	14.0

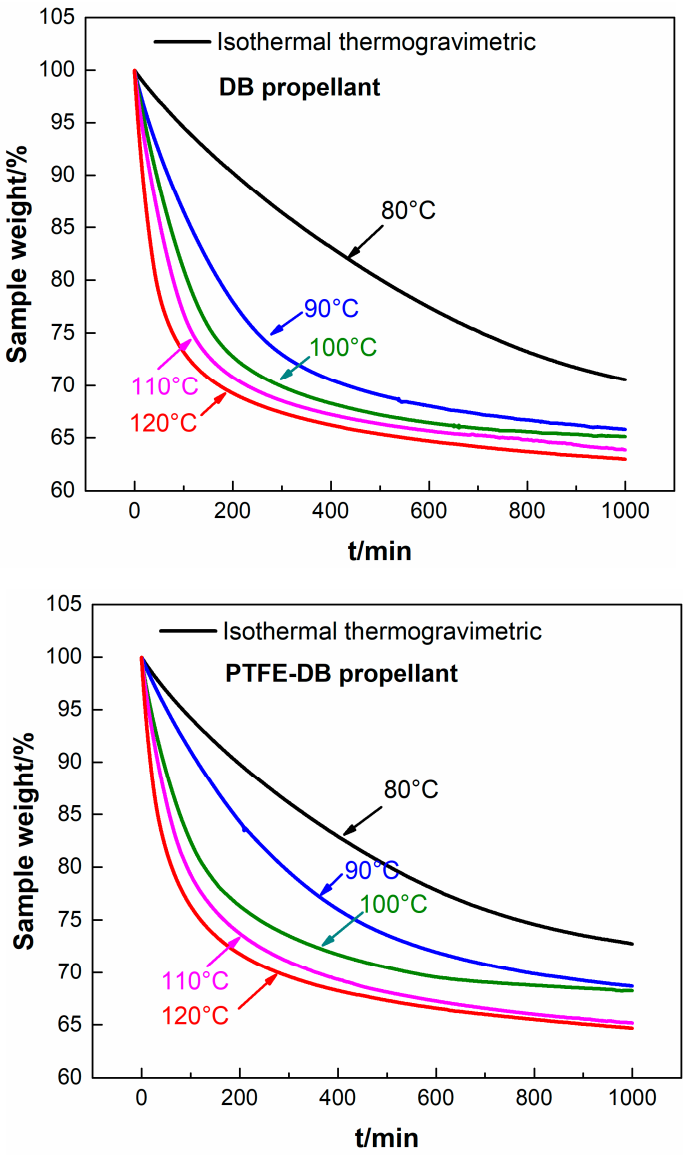
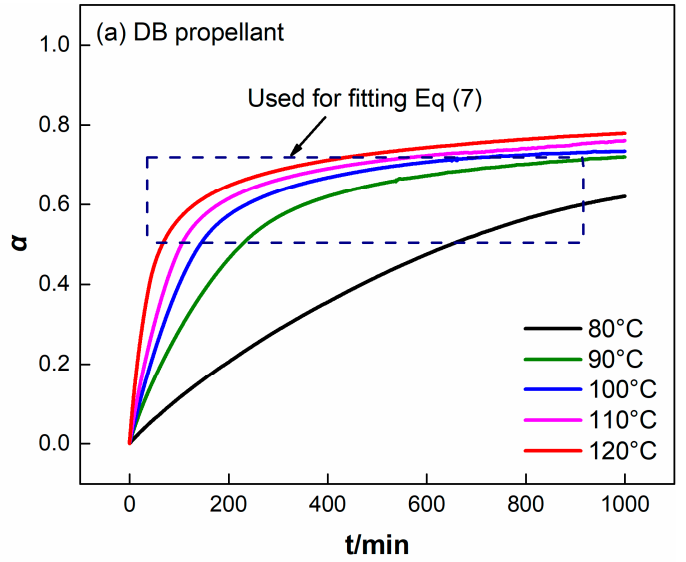


Figure S5. Isothermal TG curves of DB propellant (**a**) and PTFE-DB propellant (**b**) at different temperatures.



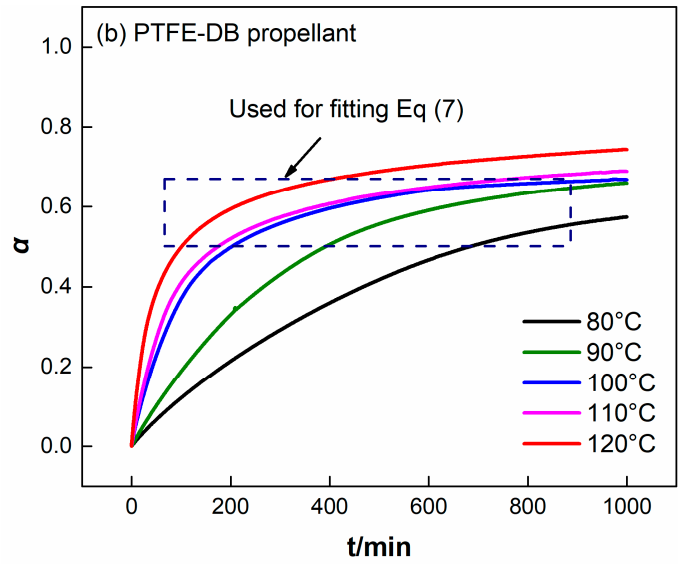


Figure S6. Conversion vs. time curves of DB propellant (**a**) and PTFE-DB propellant (**b**) at different temperatures.