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Supplementary Information

Novel prominent nylon-1 with excellent dielectric property and high Curie point

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Table S1 The comparison of dielectric constant for odd-numbered nylons and PVDF at 10Hz.

Property	Nylon-11	Nylon-9	Nylon-6	Nylon-1	PVDF
Dielectric constant at room temperature	4.14	3	4.85	12.6	11
Dielectric constant at 100 ℃	19.85	/	/	2160	/

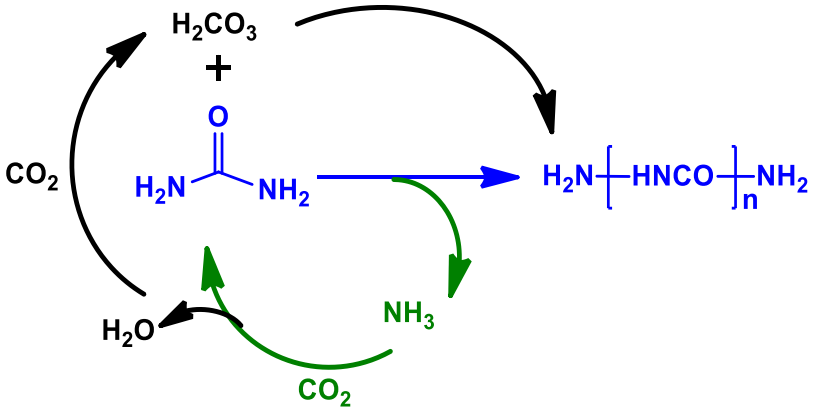
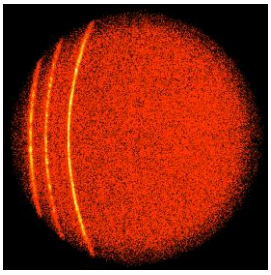
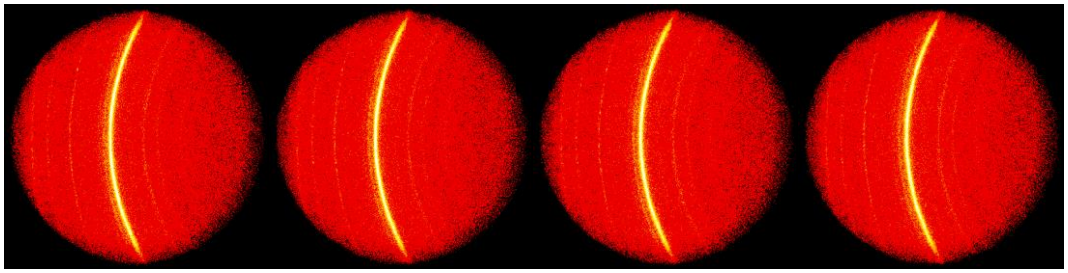


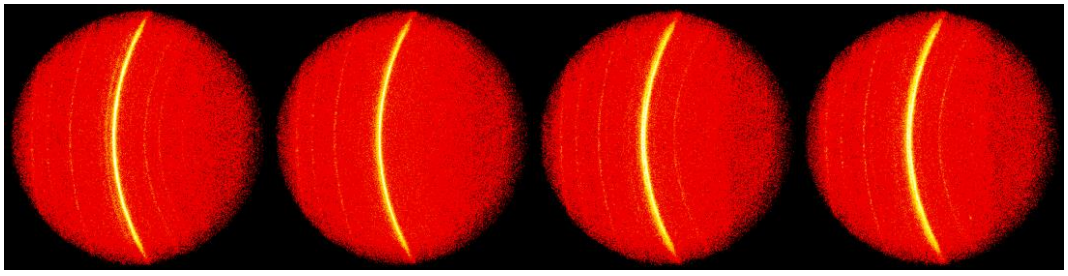
Fig. S1 The synthetic route of nylon-1.



Blank experiment



30 ℃ 55 ℃ 80 ℃ 105 ℃



130 ℃ 155 ℃ 180 ℃ 195 ℃

Fig. S2 2D-XRD patterns of nylon-1 from 30 °C to 195 °C during heating process.

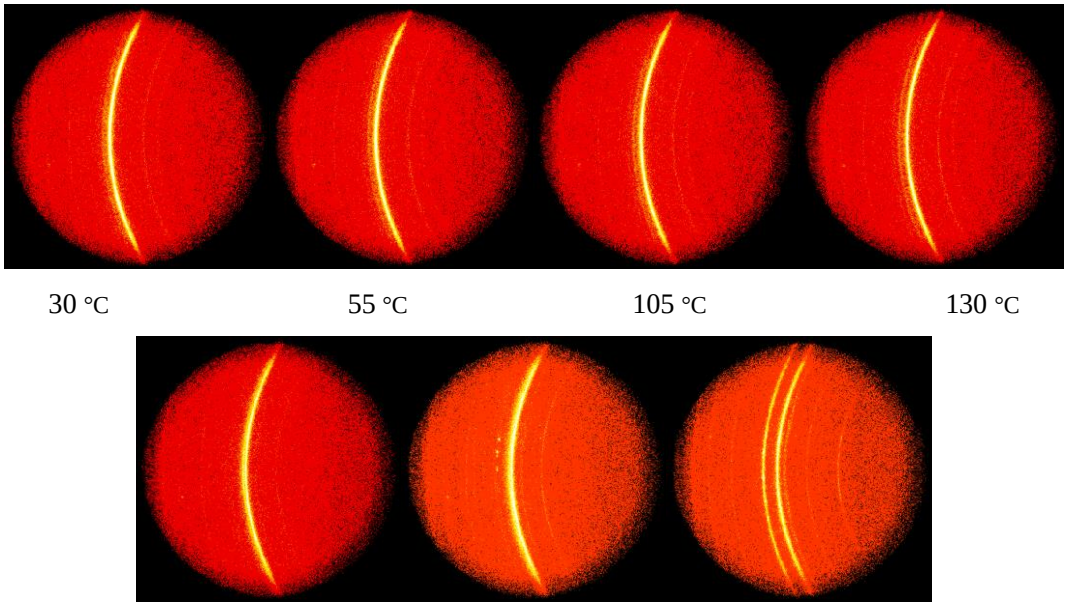


Fig. S3 2D-XRD patterns of nylon-1 staying for 30 min from 30 ℃ to 195 ℃.