

# Molecular Design and Property Prediction of Sterically Confined Polyimides for Thermally Stable and Transparent Materials

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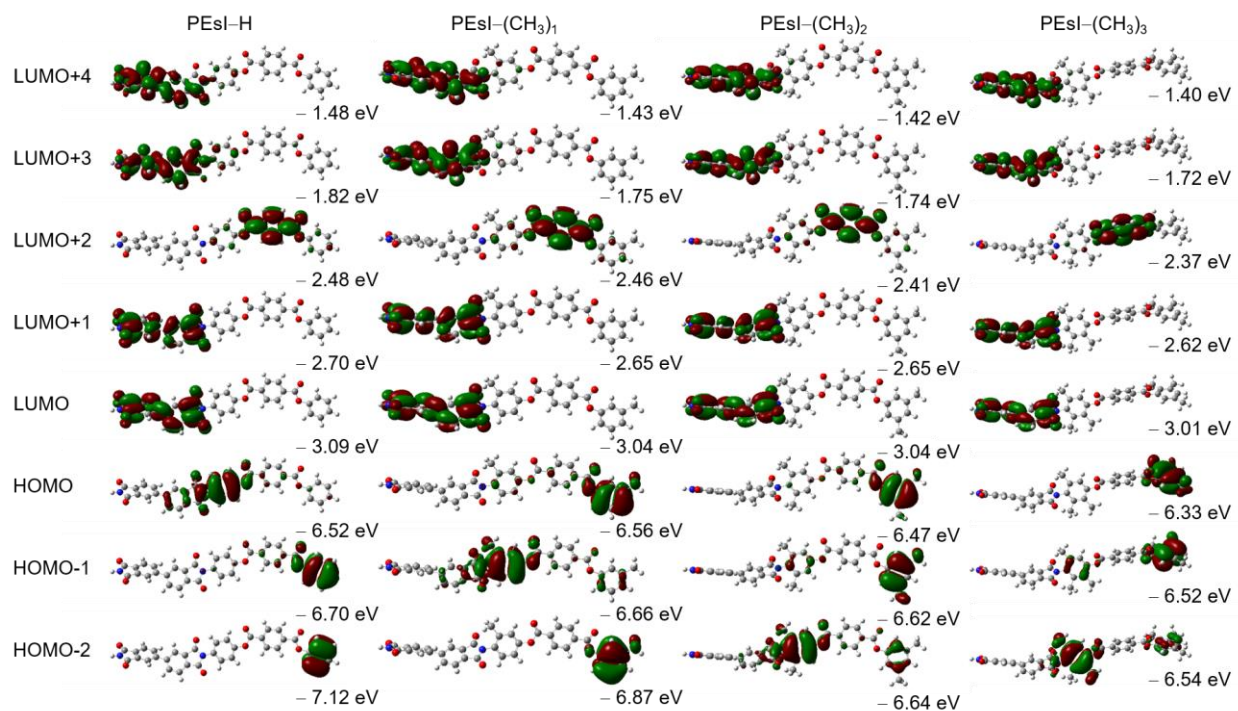
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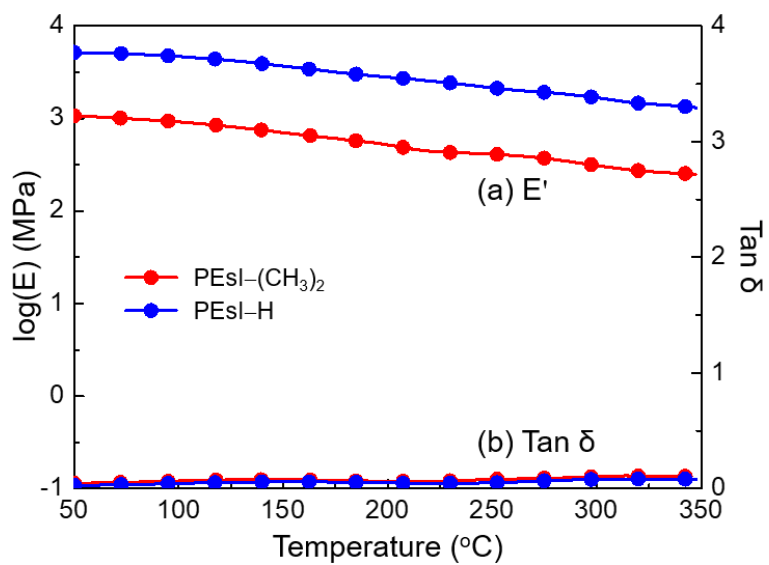
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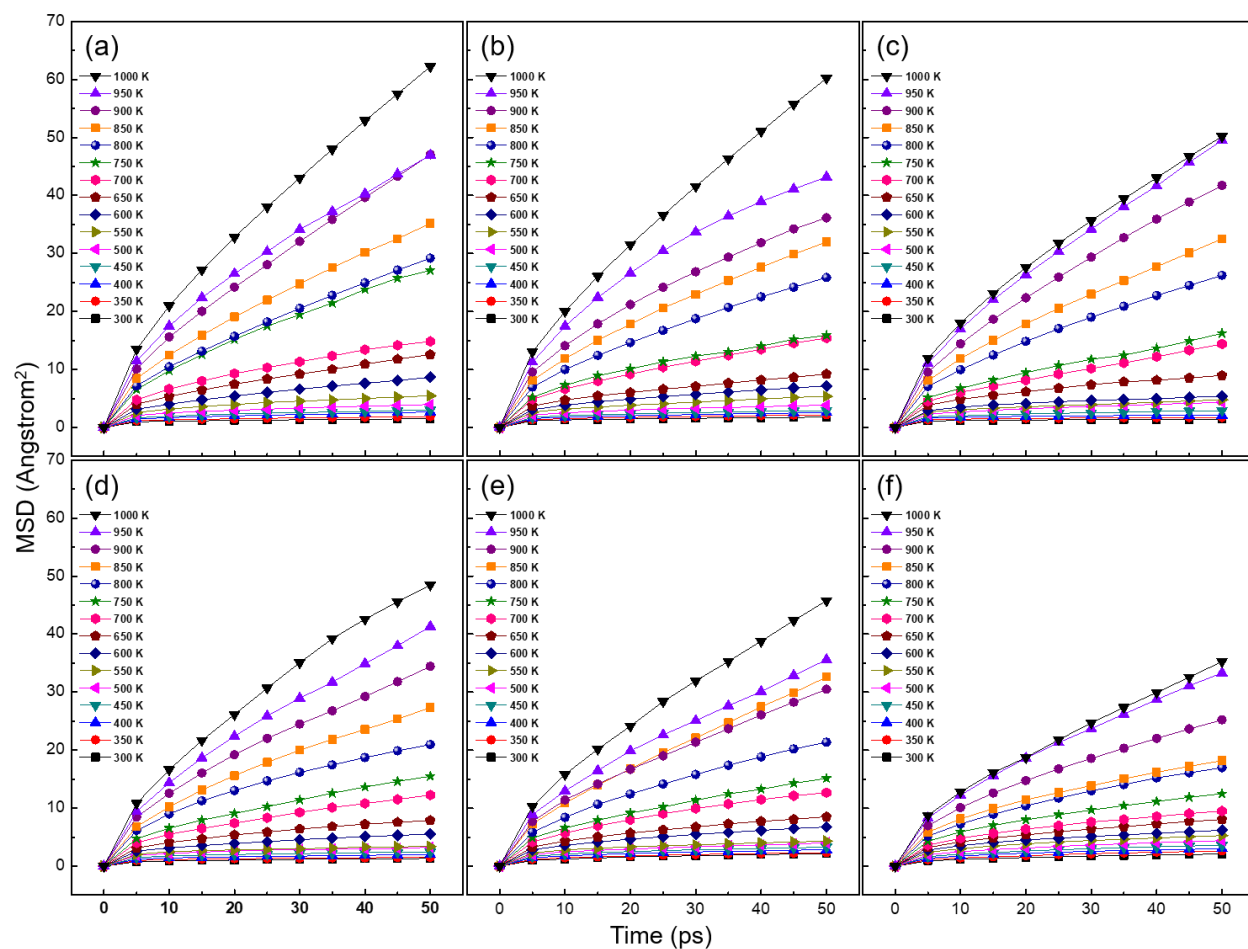
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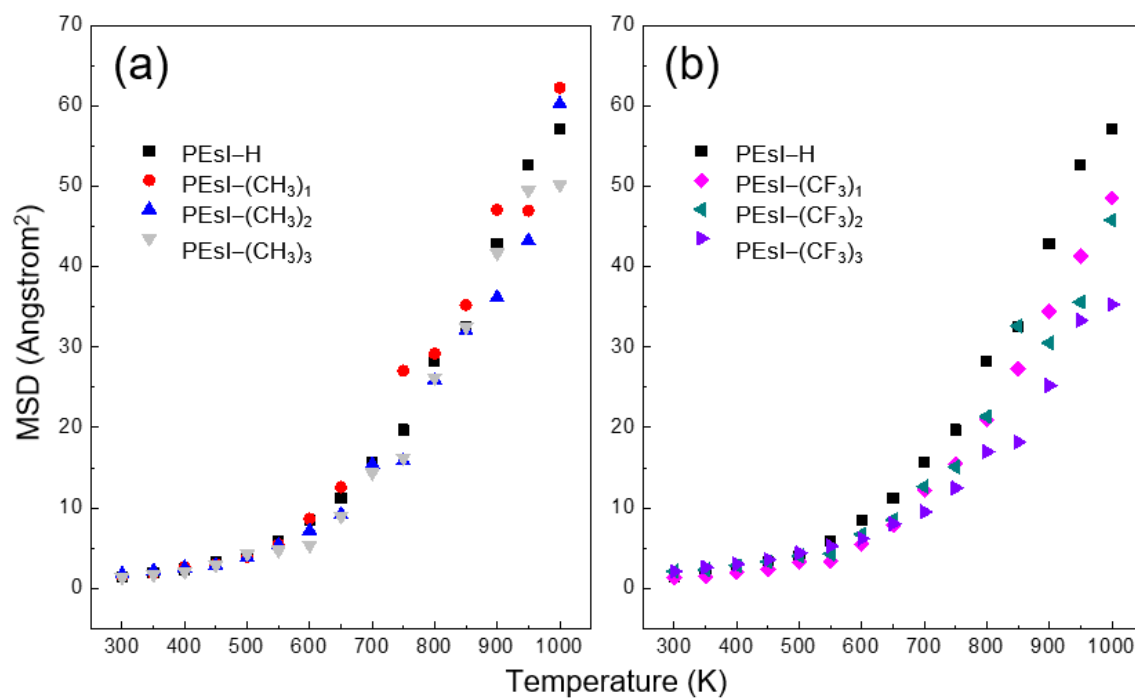
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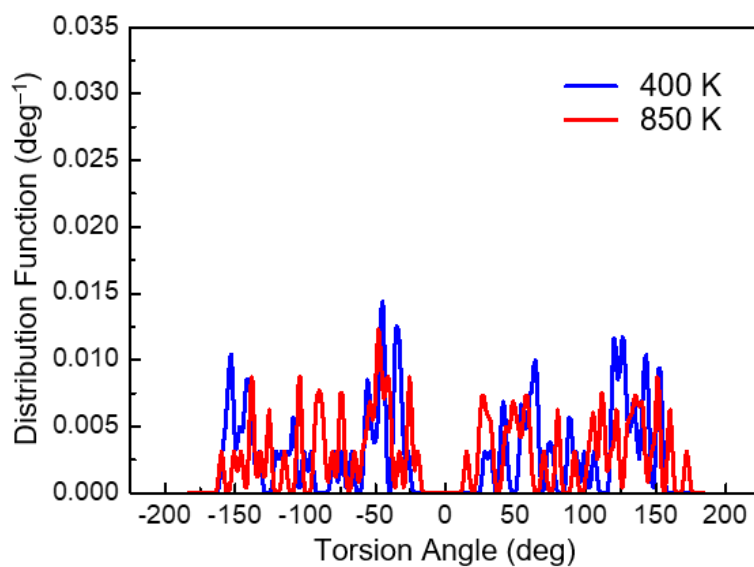
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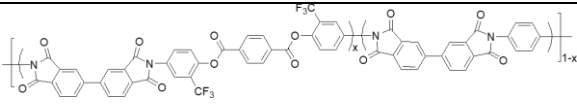
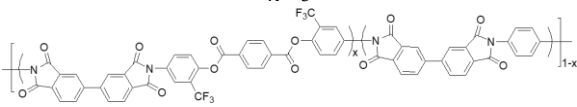
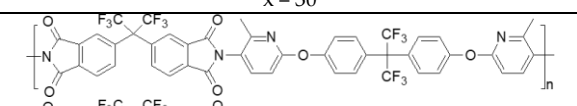
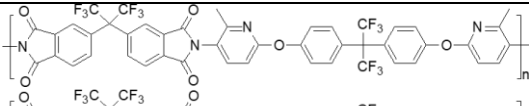
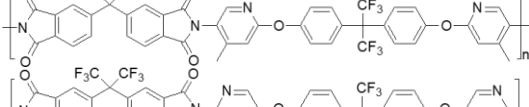
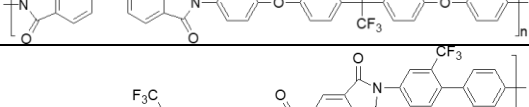
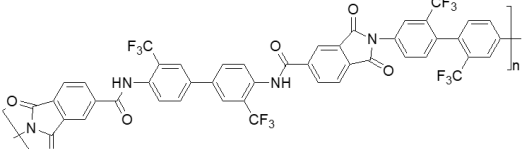
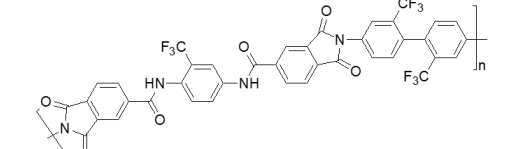
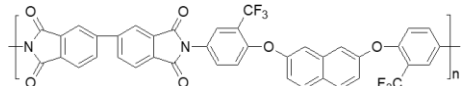
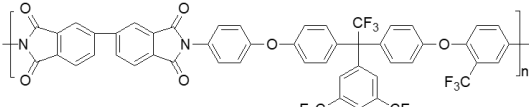
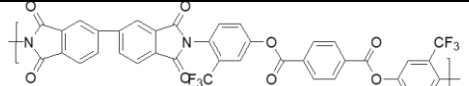


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**Table S1.** Thermal properties of fluorinated PIs

PI type	Molecular structure	$T_g$ (K)	CTE (ppm K <sup>-1</sup> )	Reference
Fluorinated ester-bridged PI		651	8.3	Yang, S. et al. <sup>1</sup>
		587	18.3	
				
PI containing pyridine and fluorinated units		535	68	Shang, D. et al. <sup>2</sup>
		548	64	
		538	67	
PI derived from fluorinated tetracarboxylic dianhydride		543	8.3	Hasegawa, M. et al. <sup>3</sup>
		505	26.5	
PI containing ether and fluorinated units		544	NA	Hsiao, S. et al. <sup>4</sup>
PI derived from multi-trifluoromethyl-substituted aromatic diamine		512	62.1	Yang, S. et al. <sup>5</sup>
Our model compounds		731	12.8	This work

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