

Electronic Supporting Information

Large Scale Synthesis of Amorphous Polyester Elastomer with Tunable Mechanoluminescence and Preliminary Application in Optical Strain Sensing

Hongguo Shou ^a, Kun Jia ^{a*}, Xin Zhou ^b, Lingqiang Gao ^b, Xiaohong He ^a, Xuefei Zhou ^a, Dawei Zhang ^a,

Xiaobo Liu ^{a*}

^a Research Branch of Advanced Functional Materials, High Temperature Resistant Polymer and Composites Key Laboratory of Sichuan Province, School of Microelectronics and Solid-State Electronics, University of Electronic Science and Technology of China, Chengdu, 610054, P. R. China

^b Optical Materials Research Laboratory, Yibin Plastic Packing Materials Co. Ltd, Yibin 644007, China

* Correspondence to: jiakun@uestc.edu.cn; liuxb@uestc.edu.cn

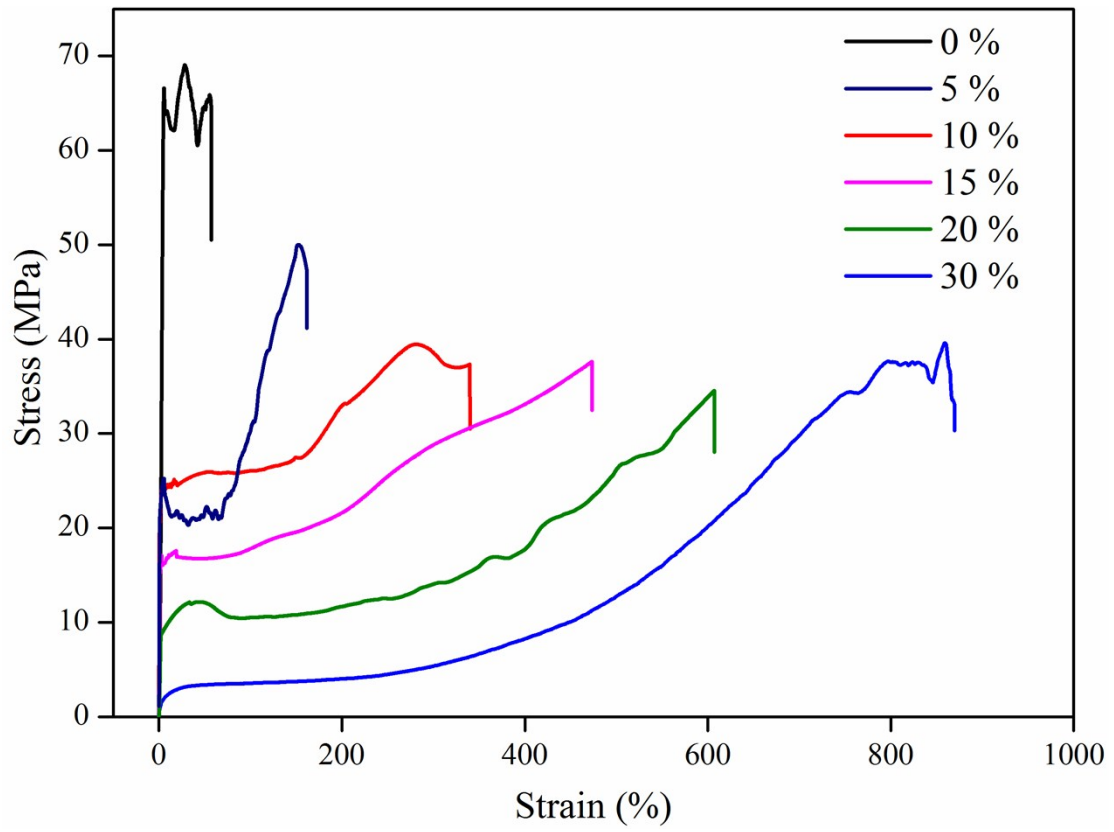


Fig.S1 The stress-strain curves of PETG-PEG copolyesters

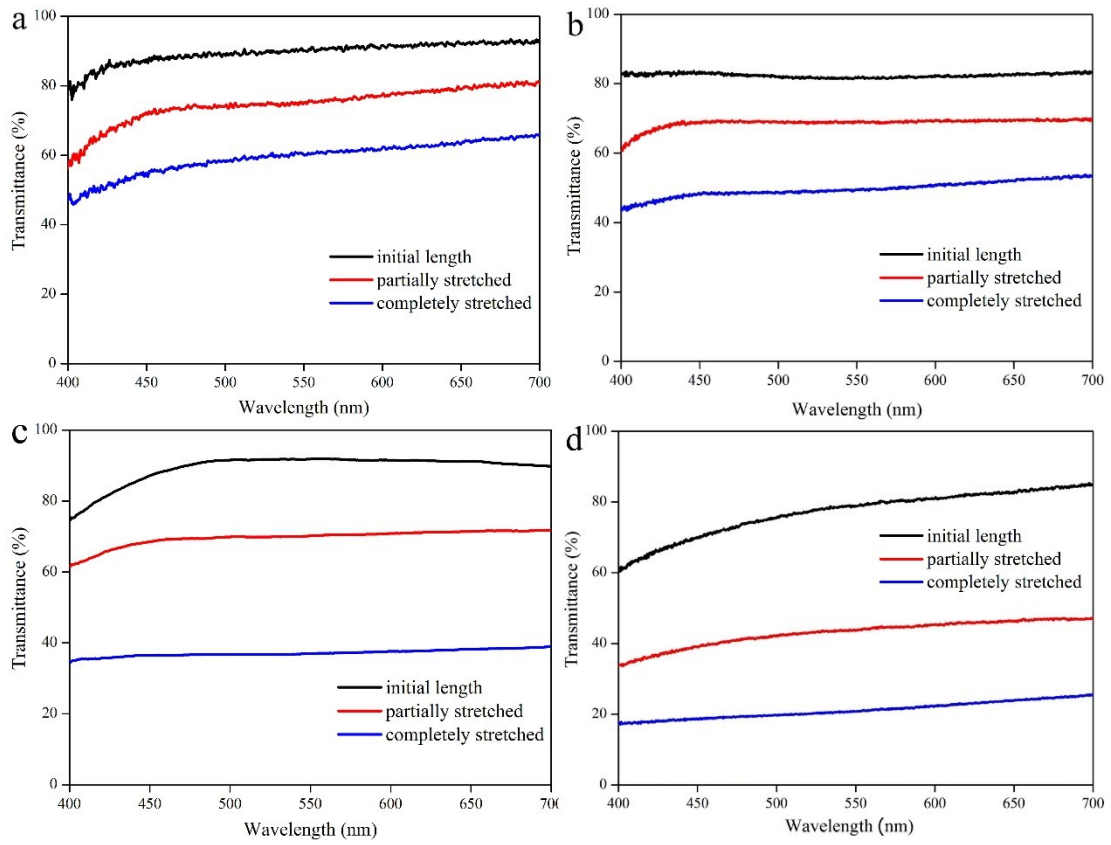


Fig.S2 Transmission spectra of PETG-PEG copolyesters containing 5 wt.% (a), 15 wt.% (b) , 20 wt.% (c) and 30 wt.% (d) PEG

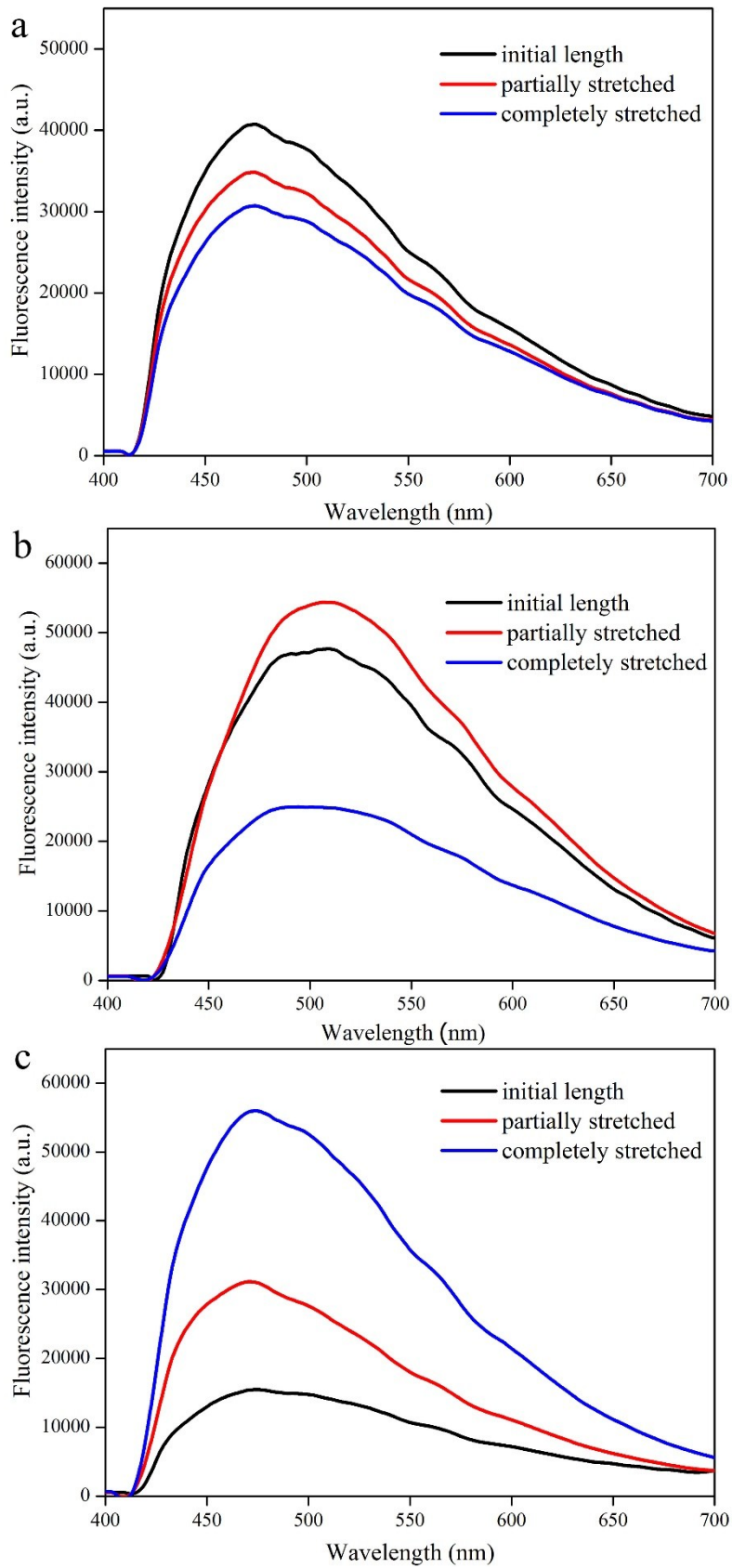


Fig.S3 Fluorescence emission spectra of PETG-PEG copolyesters containing 5 wt.% (a), 15 wt.% (b) and 20 wt.% (c) PEG under laser excitation at 405 nm.

Table.S1 Mechanical properties of PETG-PEG copolyesters

Sample No.	Content of PEG (mass ratio)	Intrinsic Viscosity (dL/g)	Elongation at Break (%)	Tensile strength (MPa)
1	0 %	0.65	57.41	69.04
2	5 %	0.66	161.43	49.99
3	10 %	0.68	336.53	39.45
4	15 %	0.70	469.28	37.63
5	20 %	0.71	603.58	35.20
6	30 %	0.72	861.25	37.36