Supporting Information

Nonlinear Optical Properties of $CsPbI_3$: Synthesis, Characterization, and Application in Passively Q-Switched Lasers

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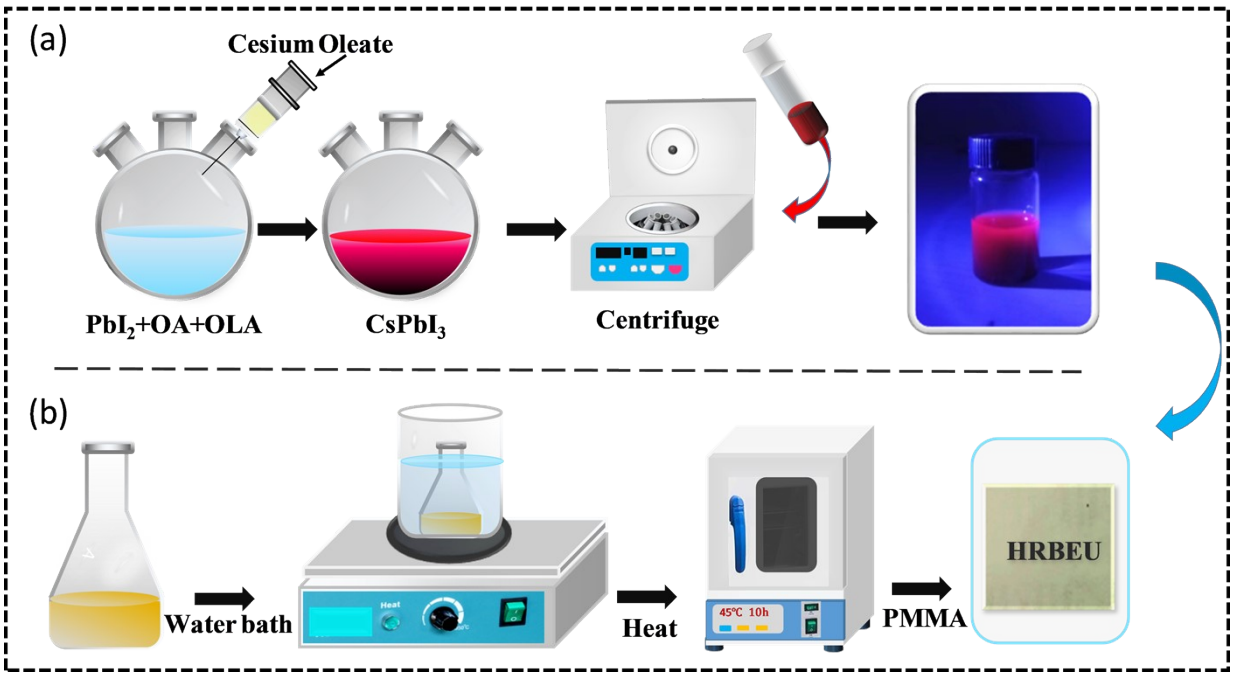

Fig. S1(a) Formation principle of the $CsPbI_3$ (b) Flow chart of organic glass fabrication.

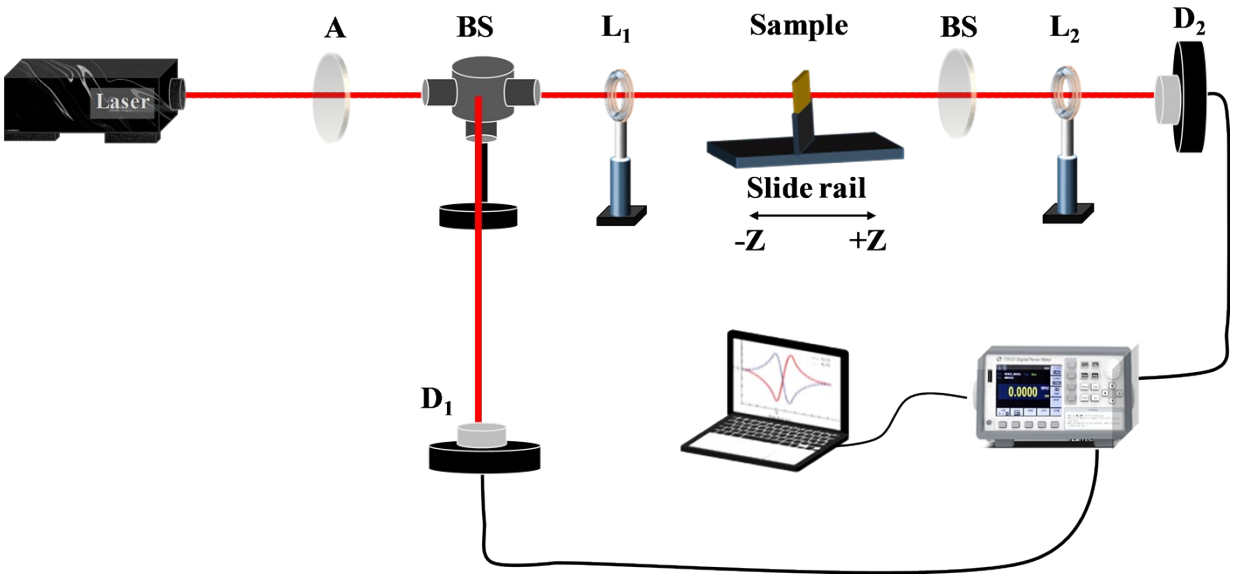

Fig. S2 The scheme of the Z-scan experimental setup.

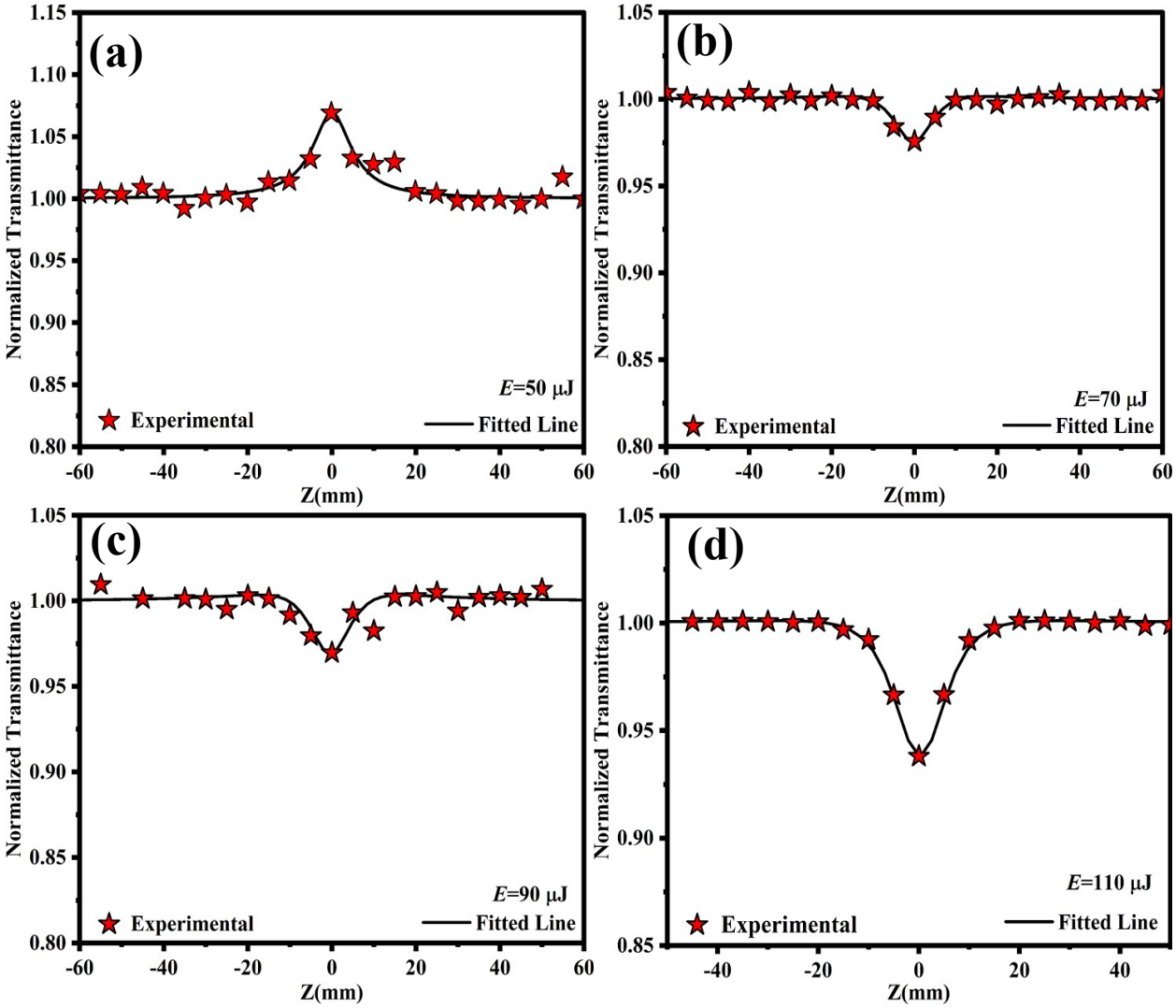

Fig S3. (a)-(d) NLA curve of $(CsPbI_3)_2$/PMMA organic glass at 50–110 μJ.

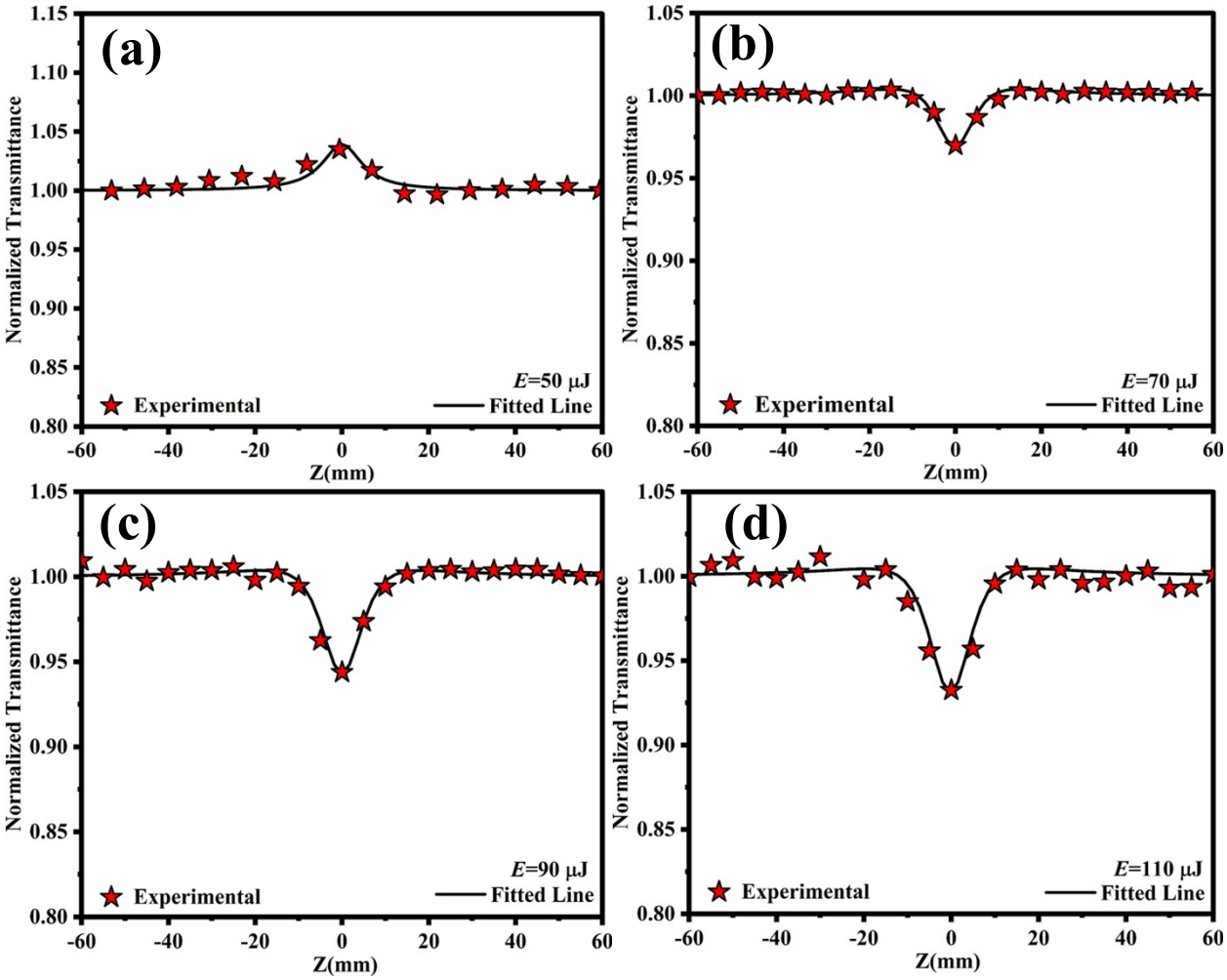

Fig S4. (a)-(d) NLA curve of $(CsPbI_3)_4$/PMMA organic glass at 50–110 μJ.

Table S1 The I_0, I_s and β of $(CsPbI_3/PMMA)_2$/PMMA OG with input energy of 50–110 μJ.

E(μJ)	I_0(Wm^{-2})	I_s(Wm^{-2})	β(mW^{-1})
50	2.06×10^{12}	1.50×10^{12}	-8.70×10^{-11}
70	2.89×10^{12}	1.65×10^{12}	6.10×10^{-11}
90	3.72×10^{12}	1.40×10^{12}	5.70×10^{-11}
110	4.55×10^{12}	1.50×10^{12}	7.30×10^{-11}

Table S2 The I_0, I_s and β of $(CsPbI_3/PMMA)_4$/PMMA OG with input energy of 50–110 μJ.

E(μJ)	I_0(Wm^{-2})	I_s(Wm^{-2})	β(mW^{-1})
50	2.06×10^{12}	1.70×10^{12}	-4.3×10^{-11}
70	2.89×10^{12}	2.60×10^{12}	1.40×10^{-10}
90	3.72×10^{12}	2.40×10^{12}	1.53×10^{-10}
110	4.55×10^{12}	2.50×10^{12}	1.43×10^{-10}