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Supplementary Information

Tenability and improvement of structural, electronic, and optical properties of lead-free $CsSnCl_3$ perovskite by incorporating reduced graphene oxide (rGO) for optoelectronic application

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This file included the following information:

Figures S1 to S2

Table S1

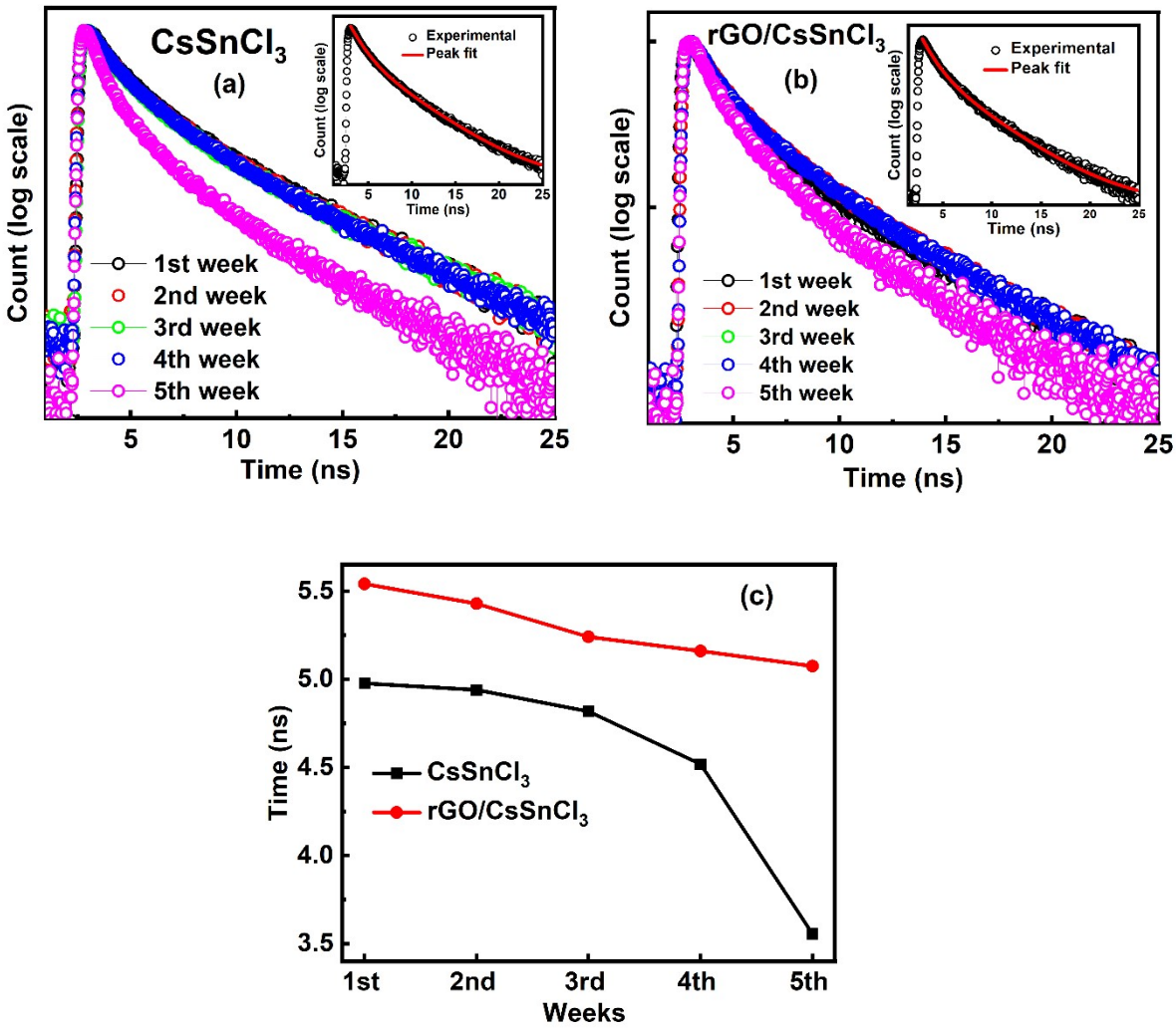

Fig. S1 (a-b) The fluorescence decay of pure $CsSnCl_3$ and rGO nanocomposite, respectively; (c) Variation of fluorescence lifetime decay of $CsSnCl_3$ and rGO nanocomposite with the no. per week.

Table S1: Shown the calculated decay lifetime fitted by the double exponential model

Samples	**Lifetimes**		
	weeks	T1 (ns)	T2 (ns)
$CsSnCl_3$	1st	1.4106	4.9764
	2nd	1.3950	4.9395
	3rd	1.3131	4.8178
	4th	1.3107	4.5182
	5th	0.8472	3.5557
rGO/$CsSnCl_3$	1st	1.5139	5.5413
	2nd	1.5433	5.4291
	3rd	1.4344	5.2408
	4th	1.3957	5.1606
	5th	1.3617	5.0754

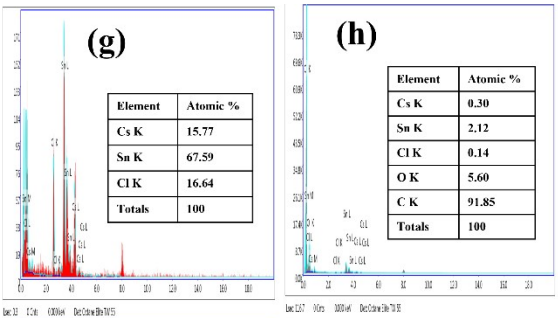

Fig. S2 Shows the Energy Dispersive Spectroscopy (EDS) spectrum for both the material