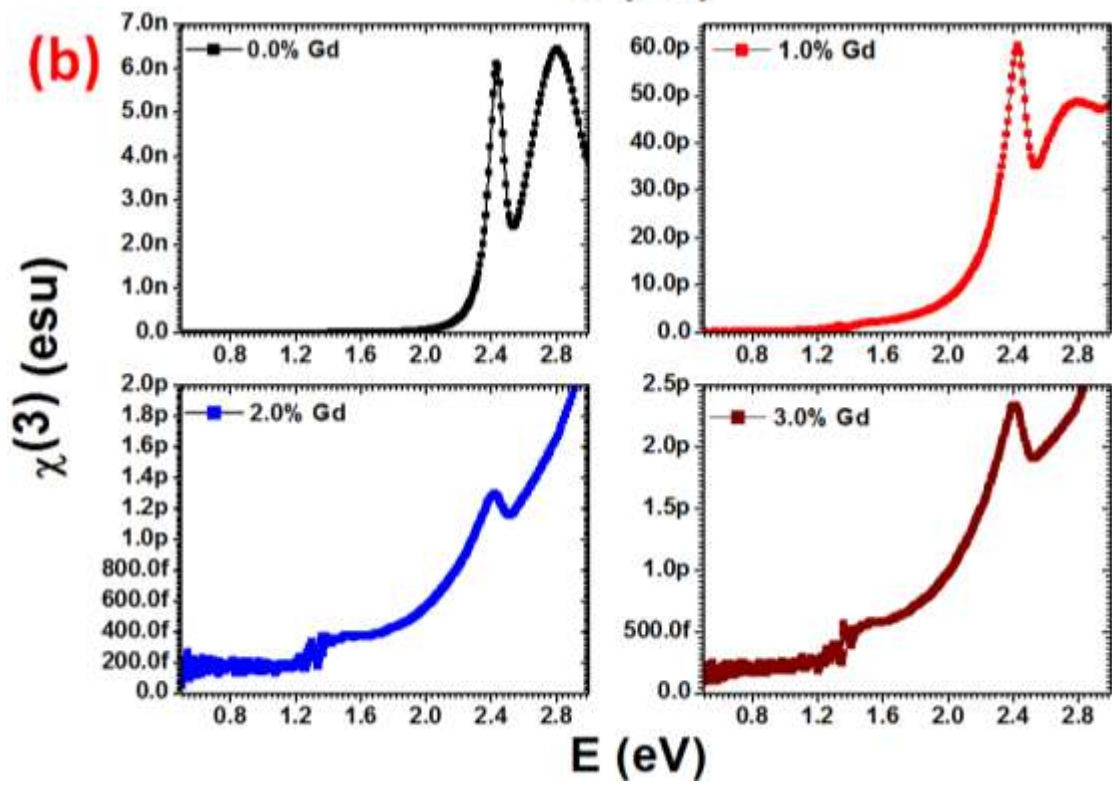
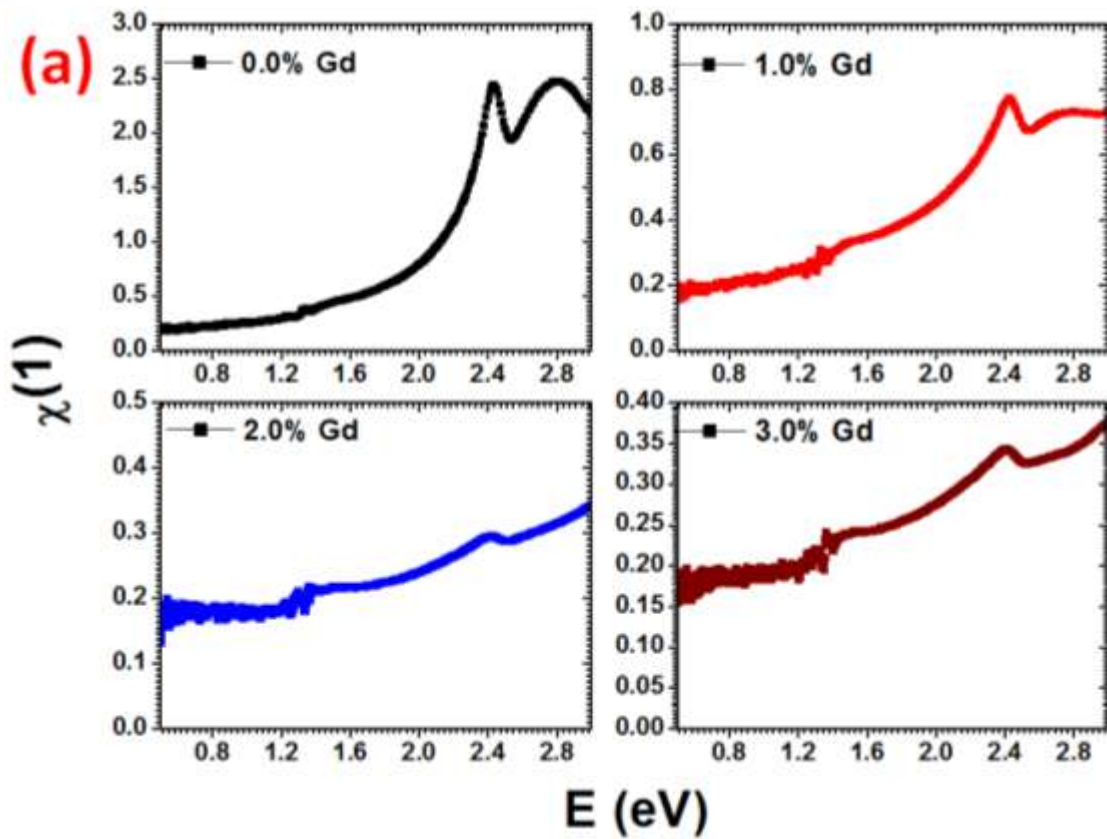
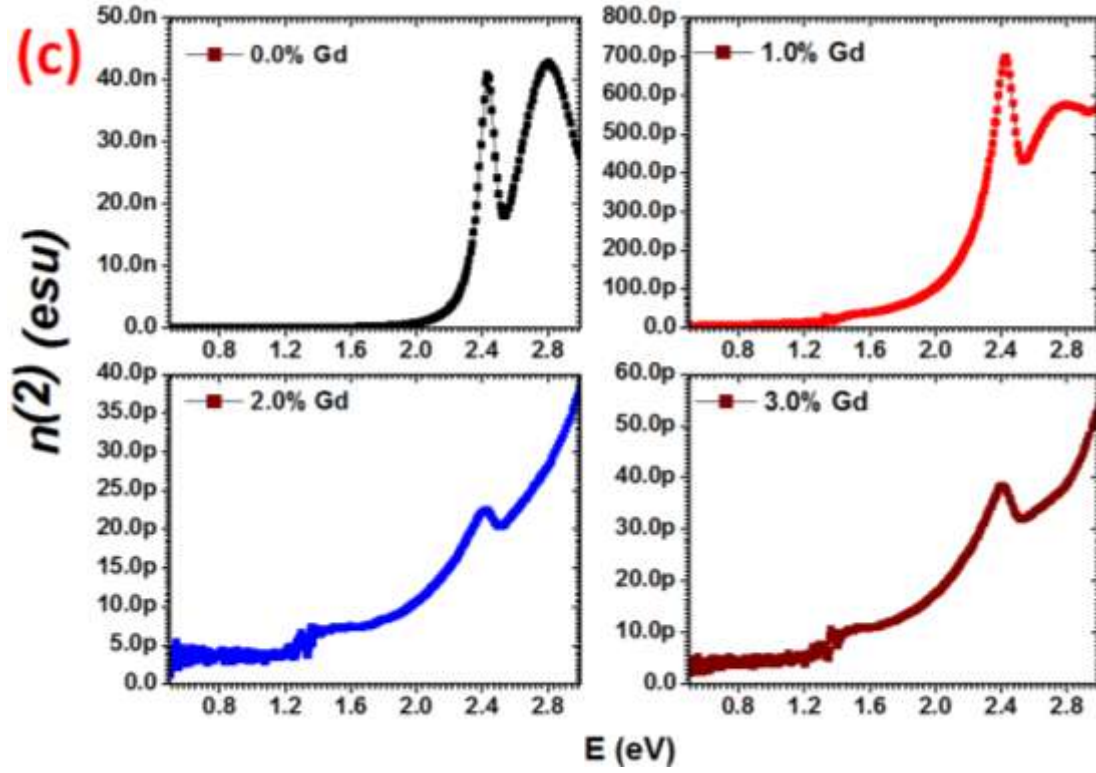


***Effect of Gd<sup>3+</sup> doping on structural, morphological, optical, dielectric and nonlinear optical properties of high-quality PbI<sub>2</sub> thin films for optoelectronic applications***

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**FIG. S1** Plots of (a)  $\chi^{(1)}$  vs.  $E$ (eV), (b)  $\chi^{(3)}$  vs.  $E$ (eV) and (c)  $n^{(2)}$  vs.  $E$ (eV) for all Gd:PbI<sub>2</sub> films  
 (<<Color online>>)