

Interband-transitions-modified third-order nonlinear optical properties of Al nanoshells in carbon disulphide

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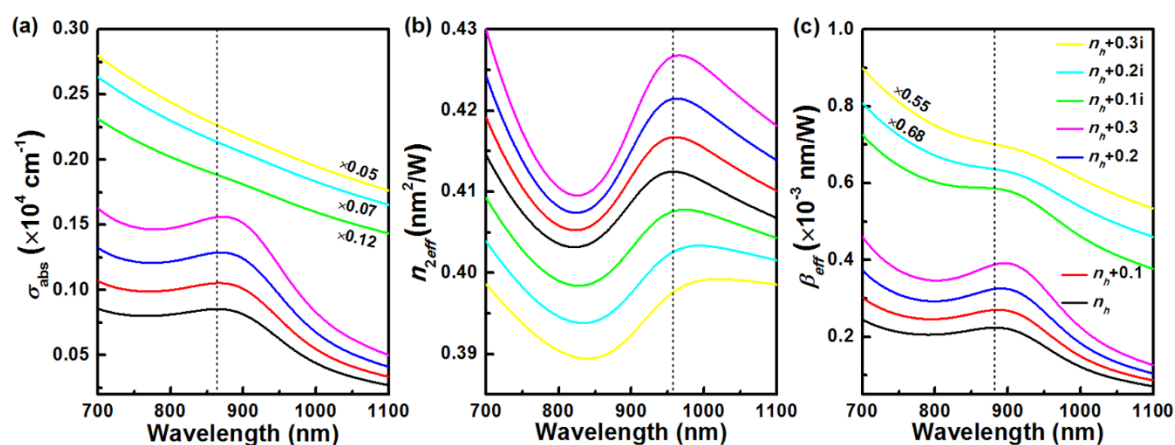


Fig. S1 (a) Linear absorption coefficient σ_{abs} , nonlinear (b) refractive index n_{2eff} and (c) absorption coefficient β_{eff} of an Al-CS₂ composite with and without artificial increases in the linear refractive index or absorption coefficient of the CS₂ host. The thickness of Al nanoshells is set as $t = 4$ nm. Dashed vertical lines indicate the peak positions of σ_{abs} , n_{2eff} and β_{eff} without changing the η_h value,

$$\text{i.e., } \eta_h = n_h.$$