

Supplementary materials

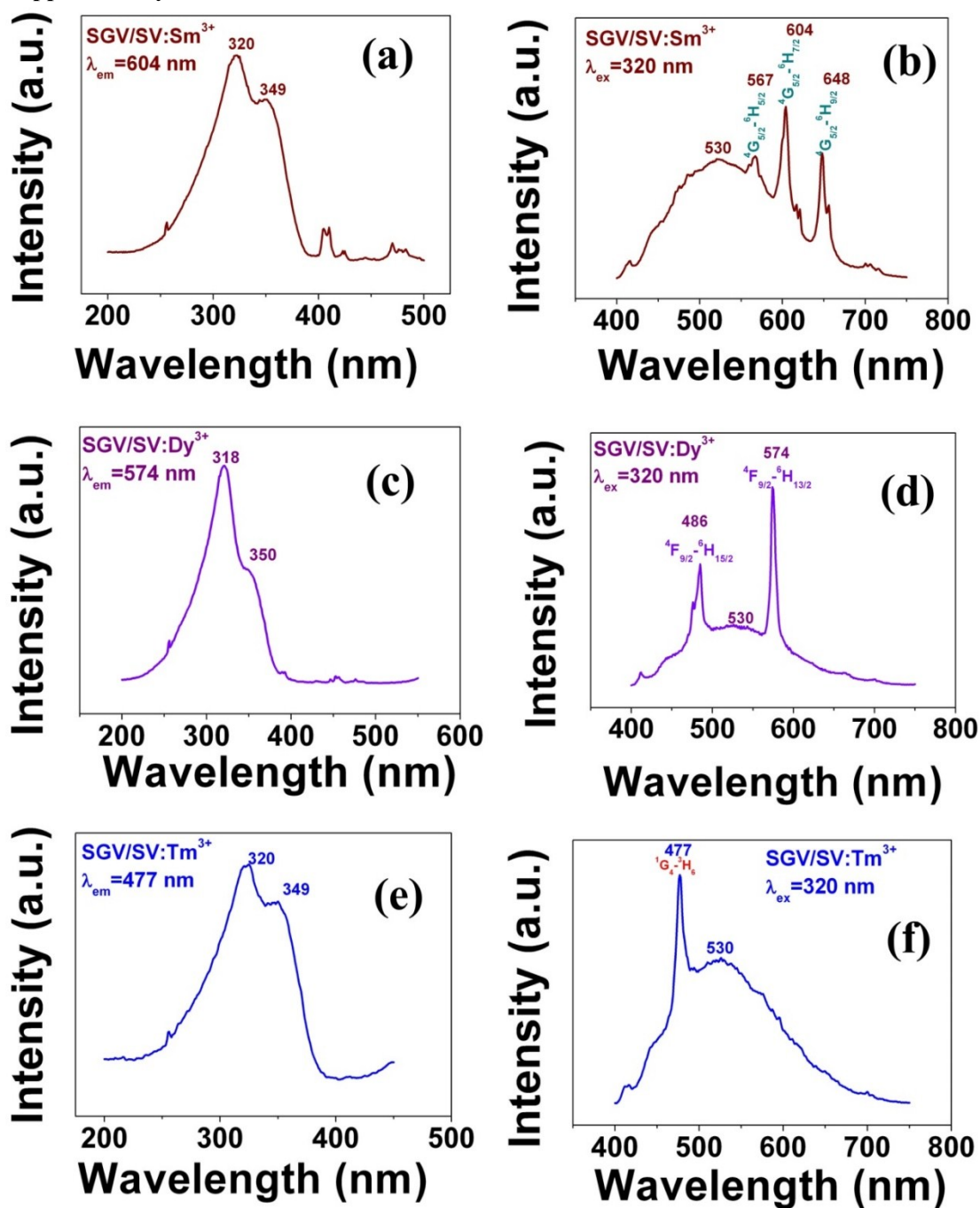


Figure S1. PL excitation and emission spectra of SGV/SV:Ln³⁺.(a) and (b): SGV/SV:Sm³⁺; (c) and (d): SGV/SV:Dy³⁺; (e) and (f):SGV/SV:Tm³⁺.