

Fabrication of Plasmonic Nanoparticles with Dielectric Interlayers for Enhancing the Performance of Polymer Solar Cells

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Here, we report a facile method to fabricate the Ag-Au core-shell nanoparticles with silica interlayers for enhancing the performance of polymer solar cells. The dielectric layer between Ag core and Au shell is utilized for avoiding the direct contact of two metals, resulting in the enlargement of optical absorption in visible wavelength region. The strategy employing binary metal core-shell nanoparticles will provide the improvements in optical properties and performance of polymer solar cells.