

Supporting information

Olive oil

The olive oil used in this study was purchased from Tesco supermarket, UK. For consistent results, same brand of extra virgin olive oil was used. The composition of extra virgin olive oil is as below:

Ingredients	per 100g
Protein	0
Carbohydrate	0
Salt/fibers	0
Fats	
Mono-unsaturated	14.3g
Polyunsaturated	8.2g
Saturated	14.3g

Ligand exchange reaction

100 mg of PbS nanoparticles were placed in 100 mL of round bottom flask containing 30 mL of butyl amine under nitrogen atmosphere. The flask was then wrapped with black paper and stirred at room temperature for 24 hours. Butylamine capped PbS nanoparticles were precipitated by adding 10 mL of isopropanol and then subsequently washed three times more with isopropanol.

IR spectra of butylamine, olive oil capped and butylamine capped PbS nanoparticles

