Supporting Information:

Enzyme Catalyzed Regioselective Modification of Starch Nanoparticles

**Soma Chakraborty, Bishwabhusan Sahoo, Iwao Teraoka,
Lisa M. Miller[‡], Richard A. Gross***

NSF Center for Biocatalysis and Bioprocessing of Macromolecules, Othmer Department of Chemical and Biological Science and Engineering, Polytechnic University, Six Metrotech Center, Brooklyn, New York 11201 (<http://chem.poly.edu/gross>);

[‡]National Synchrotron Light Source, Brookhaven National Laboratory, Upton, NY 11973

Figure S-1: ¹H-NMR spectra in DMSO-d₆ of the product formed by the reaction between starch nanoparticles and vinyl stearate

Figure S-2: ^1H -NMR spectrum in D_2O of the product formed by the reaction between starch nanoparticles and maleic anhydride

Figure S-3: ¹H-NMR spectra in DMSO-d₆ of the product formed by the reaction between starch nanoparticles ε Caprolactone

Figure S-4: Effect of reaction time on degree of substitution for the reaction of starch with different acylating agent; starch (glucose residues):vinyl stearate 1:3 mol/mol, starch:maleic anhydride 1:1 mol/mol, starch:ε-caprolactone 1:3 mol/mol