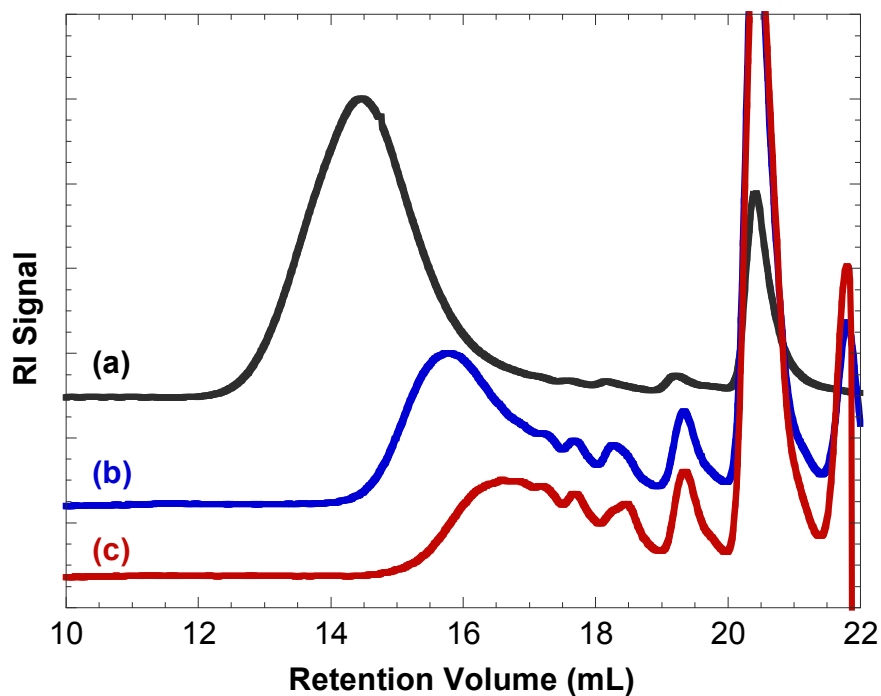# Polyanhydride Nanoparticles by 'Click' Thiol-Ene Polymerization

Katie L. Poetz,[a] Olivia Z Durham[a] and Devon A. Shipp[*a,b]

[a] Department of Chemistry & Biomolecular Science, Clarkson University, Potsdam NY 13699-5810, U.S.A. Email: dshipp@clarkson.edu. Tel. +1-315-268-2393.
*[b] Center for Advanced Materials Processing, Clarkson University, Potsdam NY 13699-5810, U.S.A.*

Figure SI-1. GPC traces of PA and PA degradation (in 3:1 THF:water) degradation of PA. (a) t = 0 (M_n = 12,600, $Đ$ = 2.23), (b) t = 30 min. (M_n = 2,200, $Đ$ = 2.42), (c) t = 60 min. (M_n = 1,300, $Đ$ = 2.03).
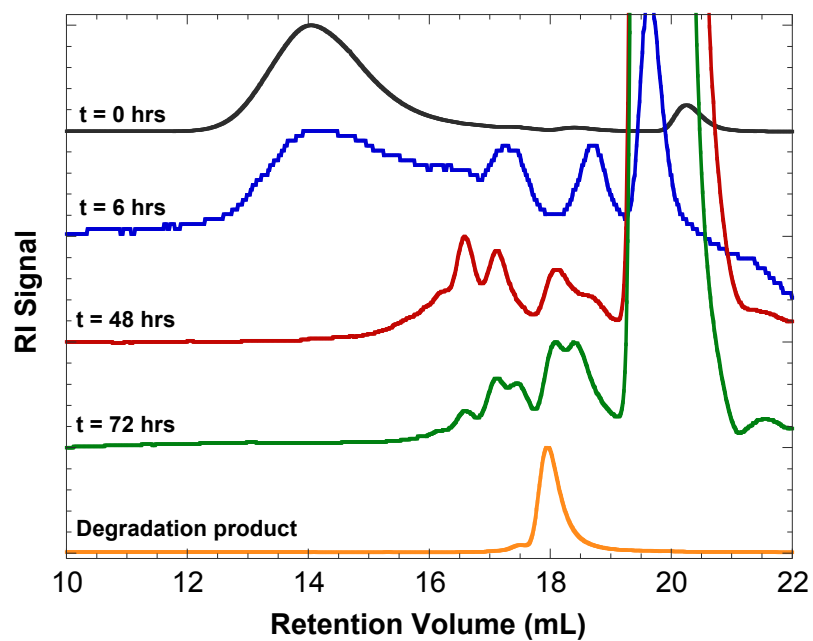
Figure SI-2. GPC traces of PA prepolymer (t=0 hrs, $M_n = 8,400$, $Đ = 2.48$) and PA particles as a function of degradation time at 37°C in PBS solution. Also shown is the GPC trace of the model degradation product (Scheme 1 (**1**)).
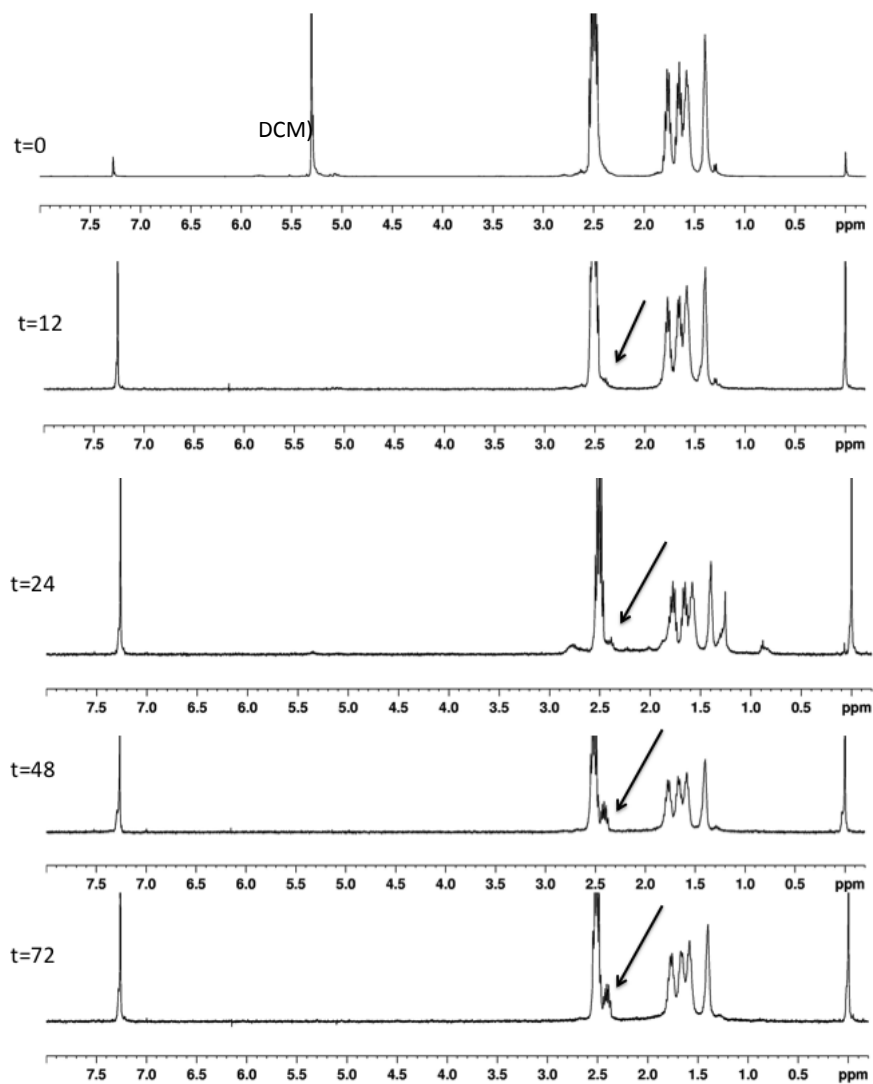
Figure SI-3. ^{1}H NMR spectra (CDCl$_3$) of PA particles as a function of degradation time in PBS solution at 37°C. Peak at ~2.4 ppm due the proton α to the carboxylic acid is indicated by the arrow.
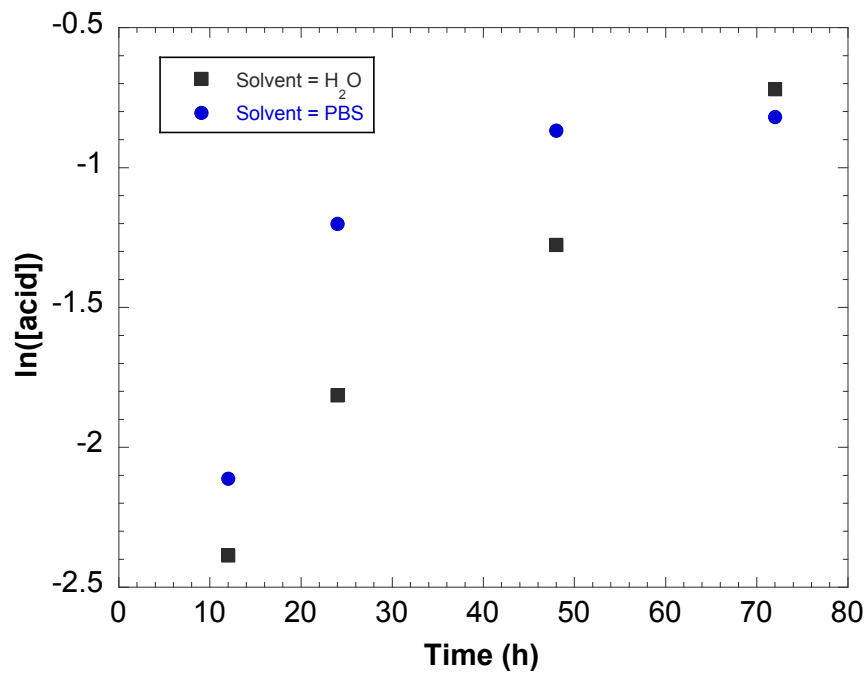
Figure SI-4. First-order plots of the integrations of peaks at ~2.4 ppm (due to proton α to the carboxylic acid) from ^{1}H NMR spectra (CDCl$_3$) of PA particles as a function of degradation time in water at 37°C.
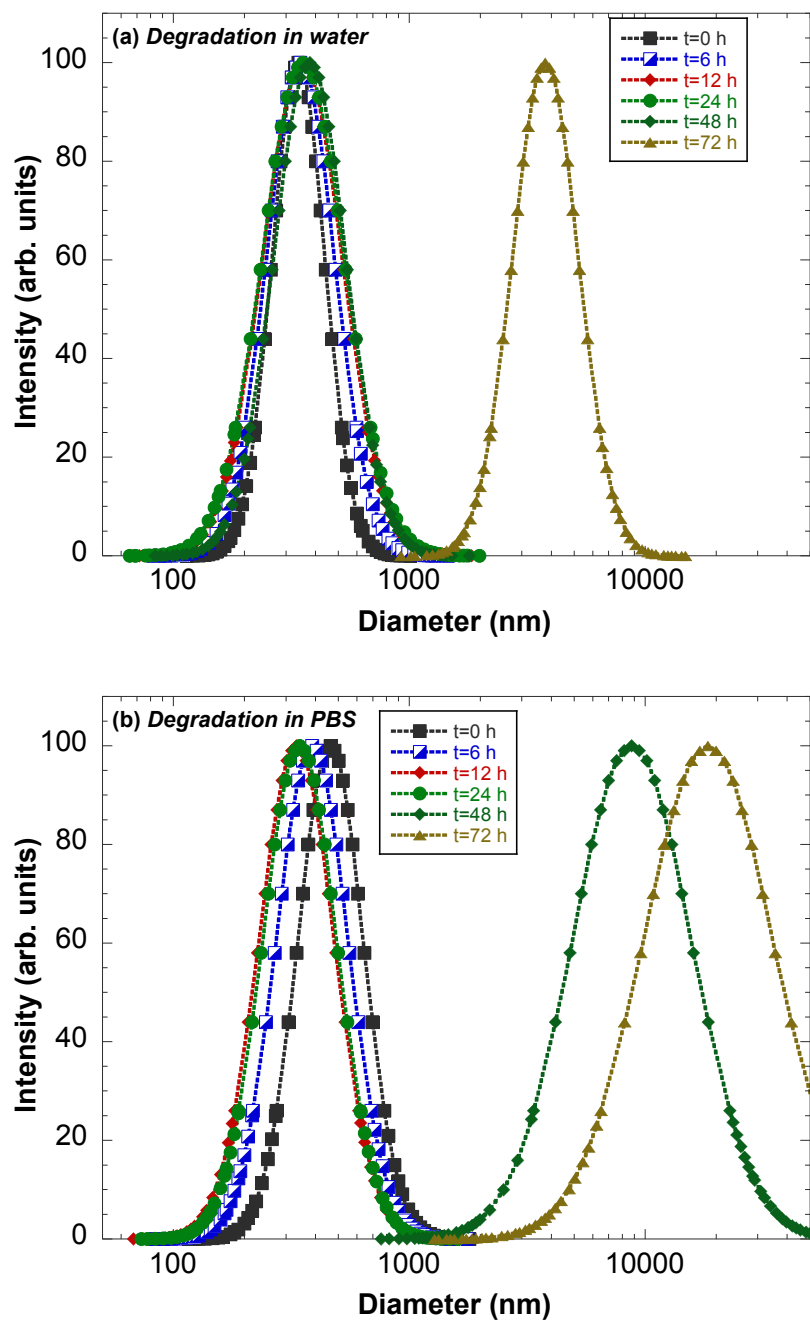
Figure SI-5. DLS curves of PA nanoparticles (M_n = 8,400, $Đ$ = 2.48) and PA nanoparticles as a function of degradation time at 37°C in (a) water and (b) PBS solution.