

# ADVANCED MATERIALS

## Supporting Information

for *Adv. Mater.*, DOI: 10.1002/adma.201306304

Materials, Designs, and Operational Characteristics for Fully  
Biodegradable Primary Batteries

*Lan Yin, Xian Huang, Hangxun Xu, Yanfeng Zhang, Jasper  
Lam, Jianjun Cheng, and John A. Rogers\**

## Supporting Information

## Materials, Designs and Operational Characteristics for Fully Biodegradable Primary Batteries

By Lan Yin, Xian Huang, Hangxun Xu, Yanfeng Zhang, Jasper Lam, Jianjun Cheng and John A. Rogers\*

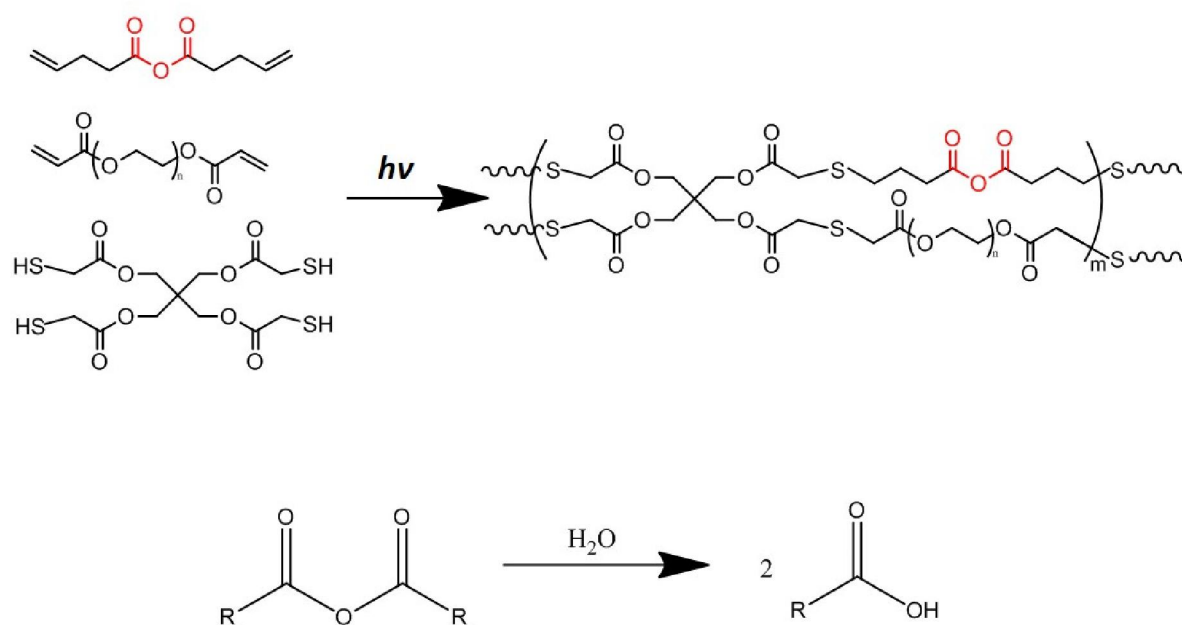


Figure S1: Synthetic and degradation schemes of polyanhydrides.

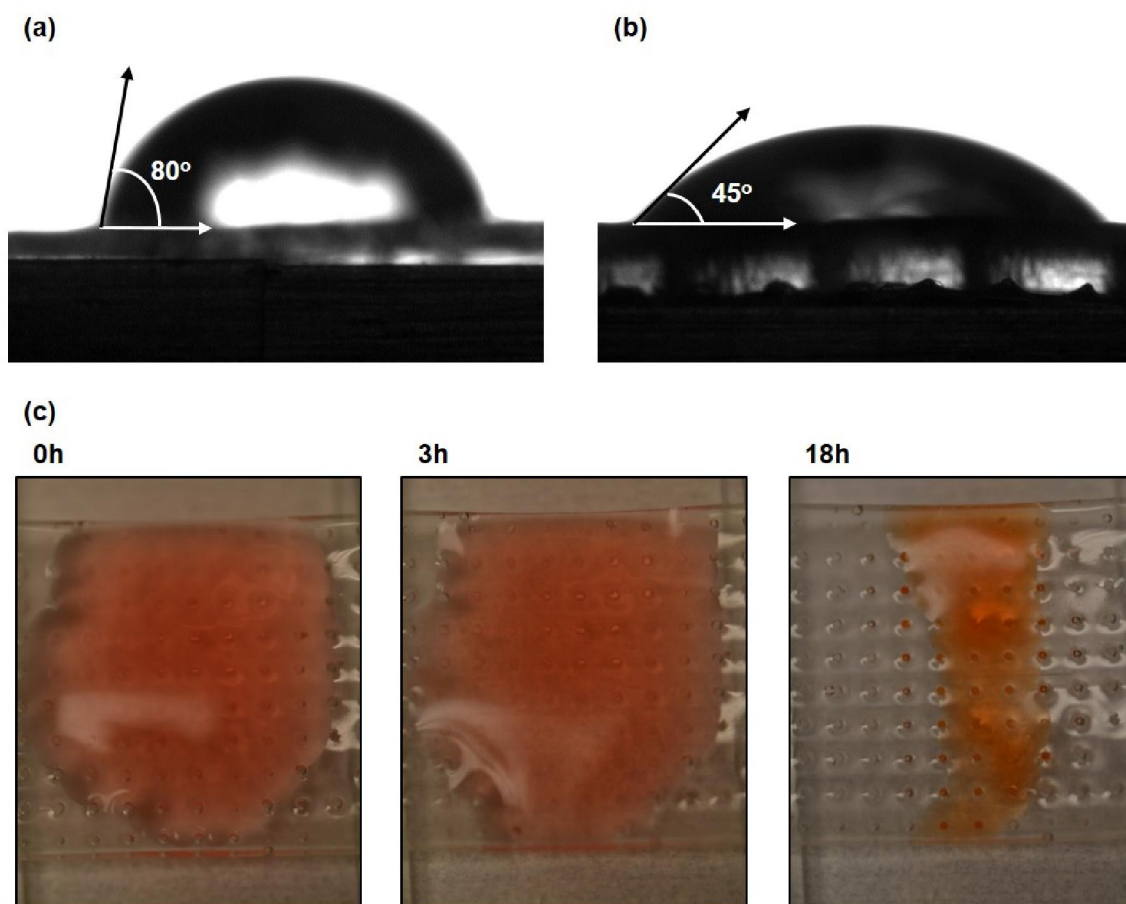


Figure S2: Contact angle measurements of (a) polyanhydride film ( $\sim 80^\circ$ ); (b) porous polyanhydride film ( $45^\circ$ ); (c) Effectiveness of porous polyanhydride film as a water barrier: the film hanging in air holds colored phosphate buffered saline without leaking through for up to 18 hours (saline evaporates into air at the same time during the observation process).