

NICEL CONCEPCION ESTILLORE

University of Houston
Department of Chemistry

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Education

05/06-Present 1ST year Graduate student
Advisor: Rigoberto C. Advincula

08/02-05/06 B.S. Chemistry with a minor in Mathematics

Honors

05/06 Graduated *magna cum laude*
Chemistry Major Fields Test named Outstanding Honorable Mention Senior

Dean's List: 2002 Fall, 2003 Spring and Fall, 2005 Spring and Fall, 2006 Spring

Lab Experience

05/06-Present Graduate Research, University of Houston- Houston, TX

- Formation of polymer brushes via surface initiated polymerization (SIP) on planar substrates: thermal and photo initiated polymerizations and ATRP
- Use of Schlenk line technique for SIP
- Layer by layer (LbL) process for the deposition of weak pH swellable polyelectrolytes and use of macroinitiators for formation of thermally responsive brushes via surface ATRP
- Analytical methods for surface and brush characterization: AFM, Ellipsometer, GPC, TGA, FT-IR, and NMR

01/06-05/06 Undergraduate Student in Physical Chemistry Lab II and Inorganic Lab II,
University of Houston- Houston, TX

- Operated on X-Ray Diffraction instrument to determine crystal structure of inorganic compounds
- Used Scanning Tunneling Microscopy (STM) to probe surface of graphite sample
- Used Vibrating Sample Magnetometer (VSM) to study superconductive property of YBCO

08/05-12/05 Undergraduate Student in Physical Chemistry Lab I and Inorganic Lab I,
University of Houston- Houston, TX

- Operated on 30 MHz and 600 MHz NMR instrument
- Used FT-IR to determine structure of unknown compounds
- Used GC-MS
- Used Atomic Force Microscopy (AFM) to resolve the surface of a single crystal silicon
- Operated on Differential Scanning Calorimetry (DSC) to derive entropy and enthalpy of indium and naphthalene