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The CATALYSIS SOCIETY of Metropolitan New York www.nycsweb.org

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Wednesday, January 18, 2012 Crowne Plaza Hotel, Somerset, New Jersey

Brian M. Weiss

University of California, Berkeley (Currently at ExxonMobil Research and Engineering)

Synergies between Catalysts and Adsorbents in Lean NO_x Traps

Lean NO_x traps (LNTs) remove NO_x from diesel exhaust using an NO oxidation catalyst and an adsorbent that binds the resulting NO_2 . Saturated LNTs are regenerated by hydrocarbon pulses that convert adsorbed NO_x to N_2 . Synergies between catalysts and adsorbents increase the efficacy of each component in the LNT. NO_2 inhibits NO oxidation; therefore, catalytic rates increase when adsorbents scavenge NO_2 from catalyst sites. NO_x must be stored as nitrates, which displace carbonates, but nitrates only form when catalyst sites provide an intermediate oxidant that converts molecularly adsorbed NO_2 to nitrates. This seminar will elucidate these synergies and show the effects of catalyst and adsorbent structure on NO_x storage on LNTs.

Dinner is a buffet, and includes Members \$40 a choice of beef, chicken or fish Non-members \$50

Social Hour (Cash Bar) 6:00 PM Students \$25 (Student Members = \$10)

Dinner 7:00 PM Retired/Post-Doc/ Unemp. \$40 (Members = \$30)Presentation 7:45 PM Annual Dues \$35 (Student = \$15)

Deadline for dinner reservations is 2:00 p.m. Friday, January 13, 2012

Call or email Lucas Dorazio (732) 205-5173 (lucasd.dorazio@basf.com) for reservations. With the exception of extreme circumstances, anyone not canceling reservations by the above deadline will be billed for dinner regardless of attendance.

<u>2010-2011 Officers:</u> Marco Castaldi (Chair), Simon Podkolzin (Chair-Elect), Wolfgang Ruettinger (Past Chair), Israel Wachs (Catalysis Society Rep), Lucas Dorazio (Secretary), John Brody (Treasurer), Jennifer Wade (Webmaster), David Harris, Colin Beswick, John Byrne (Directors)