

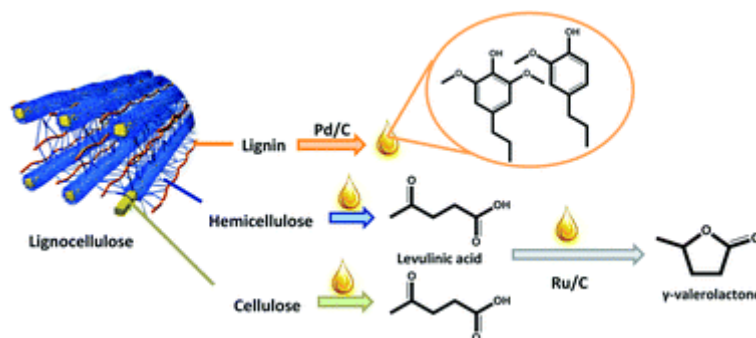
綠色/永續化學資訊共享 2012. 6. 27

資料蒐集：國立成功大學化學系 許拱北教授

- (1) On May 2nd, 2012, American Chemical Society (ACS) Publications announced *ACS Sustainable Chemistry & Engineering*, a new electronic-only journal with a focus on advancing research that aims to minimize environmental harm and achieve sustainable processes. The first issue will appear in Fall.
- (2) (i) A new book "Green Organic Chemistry in Lecture and Laboratory"
<http://www.crcpress.com/product/isbn/9781439840764>;
- (ii) Course materials available from Carnegie Mellon University
"Introduction to Green Chemistry" <http://igs.chem.cmu.edu/>;
- (iii) Course materials available from The Berkeley Center for Green Chemistry. "Green Chemistry: An Interdisciplinary Approach to Sustainability"
<http://bcgc.berkeley.edu/Green%20Chemistry%3A%20An%20Interdisciplinary%20Approach%20to%20Sustainability%20%20>;
- (iv) Course materials available from The Berkeley Center for Green Chemistry. "The Basics of Toxicology for Green Molecular Design"
<http://bcgc.berkeley.edu/toxicology-basics-green-moleculardesign>;
- (v) Course materials available from The Berkeley Center for Green Chemistry. "Green Chemistry Laboratory"
<http://bcgc.berkeley.edu/chem1a>;
- (vi) Green chemistry short course in August ACS national Meeting
"Introduction of Green Chemistry" Aug. 20, 2012
http://www.proed.acs.org/courses/course_overview.cfm?course_code=GCI1;
"Intermediate Level Green Chemistry" Aug. 20, 2012
http://www.proed.acs.org/courses/course_overview.cfm?course_code=GCI2;
"Advanced Green Chemistry" Aug. 21, 2012
http://www.proed.acs.org/courses/course_overview.cfm?course_code=GCI3;
- (vii) 東海大學化學系梁碧峯教授(編著),《綠色化學：基礎與應用》(2011.11), 滄海書局。

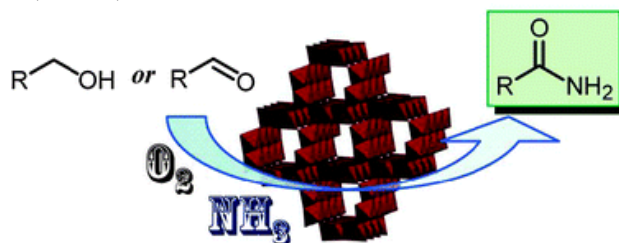
- (3) **Catalytic conversion of biomass using solvents derived from lignin.** The hemicelluloses and cellulose fractions of biomass can be converted to the high-value chemicals, such as furan intermediates, furfuryl alcohol and 5-hydroxymethylfurfural, levulinic acid, and γ -valerolactone using an organic solvent obtained by depolymerization of lignin.

Green Chem. **2012**, *14*, 1573.



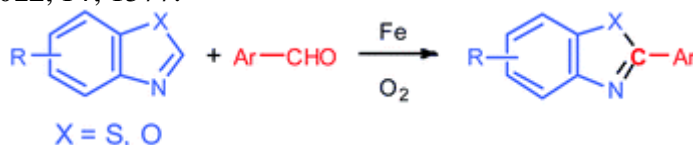
- (4) **Green oxidative synthesis** of primary amides from primary alcohols or aldehydes catalyzed by a cryptomelane-type manganese oxide-based octahedral molecular sieve.

Catal. Sci. Technol., 2013, DOI: 10.1039/C2CY20178J



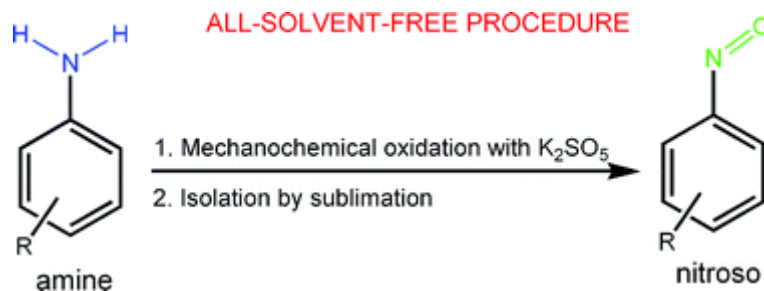
- (5) **Iron-catalyzed arylation of benzoazoles with aromatic aldehydes using oxygen as oxidant.**

Green Chem. **2012**, *14*, 1577.



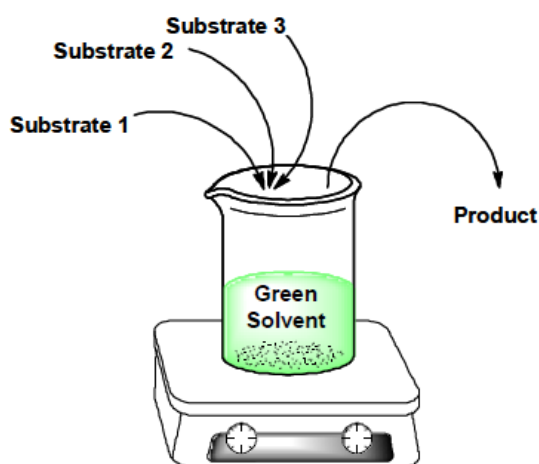
- (6) Selective and completely solvent-free solid-state mechanochemical oxidation of anilines to nitrosobenzenes fills the gap in the solid-state interconversions of nitrogen-based organic functionalities.

Green Chem. **2012**, *14*, 1597.

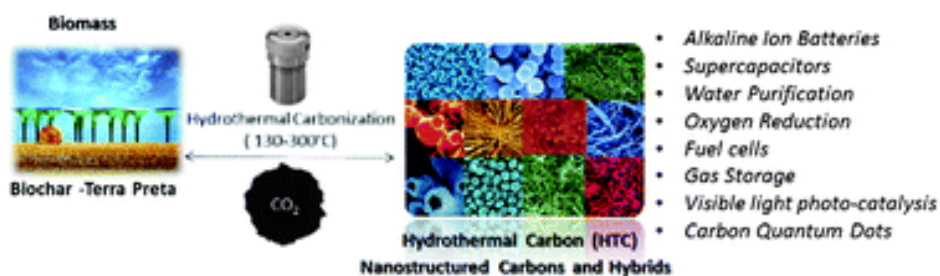


- (7) A one-day laboratory, potentially useful for undergraduate students to learn sustainability of chemical synthesis. *Chem. Educ. Res. Pract.* 2012, 13, 103-111.
- (8) Multicomponent reactions in water, ionic liquids, polyethylene glycol, and bio-based solvents.

Green Chem. DOI: 10.1039/C2GC35635J

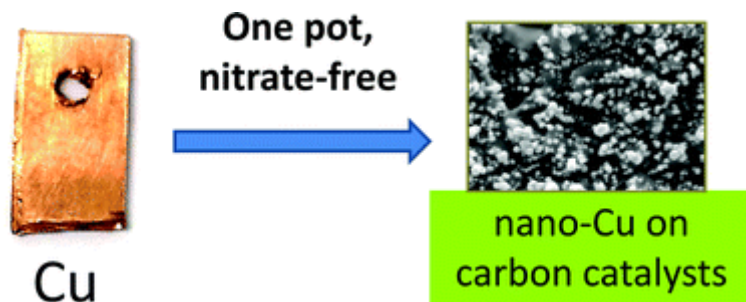


- (9) Black perspectives for a green future: hydrothermal carbons for environment protection and energy storage. *Energy Environ.Sci.* 2012, 5, 6796.



- (10) **One-pot ligand-assisted aerobic stripping and electrodeposition of copper on graphite.** Aerobic oxidation coupled with electrochemical deposition, elemental base metals can be used directly as starting materials to form heterogeneous catalysts without the need to use metal salts as catalyst precursors.

Green Chem. 2012, 14, 1643.



(11) Ruthenium-catalyzed [2+2+2] Cycloaddition of Diynes with Nitriles in Pure Water.

ChemSusChem, 2012, 854-857.



(12) Synthesis of functional acetylene derivatives from calcium carbide.

ChemSusChem, 2012, 625-628.

