

# LA-UR-11-10062

Approved for public release; distribution is unlimited.

Title: Catalyzed Conversion of Non-Food Biomass to Fuels and Chemicals:

Author(s): Silks, Louis A. III

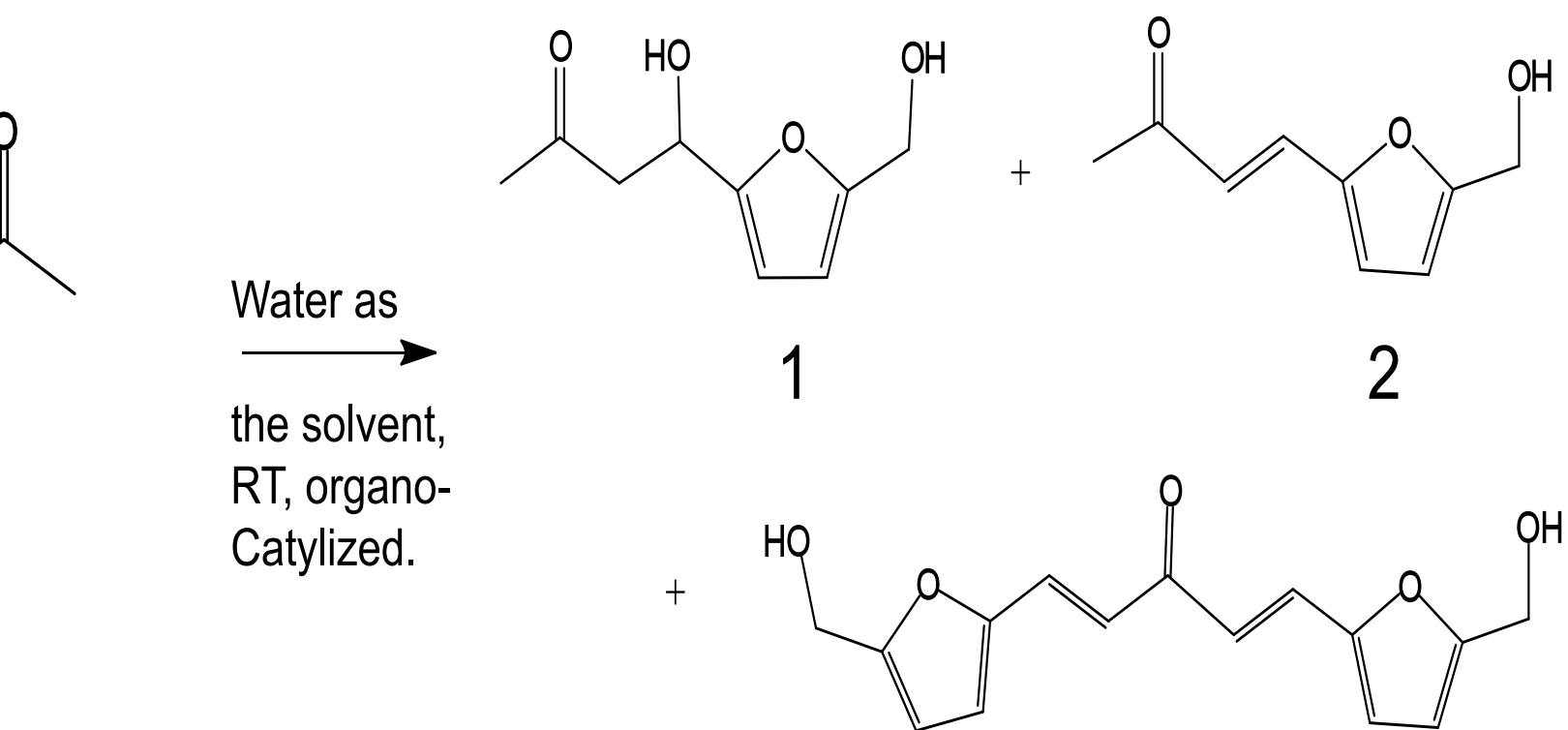
Intended for: DOE  
Keystone Biofuels, 2011-03-01/2011-03-05 (Singapore, , Singapore)  
poster  
Biological resources  
Reading Room  
DUSA



**Disclaimer:**

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the Los Alamos National Security, LLC for the National Nuclear Security Administration of the U.S. Department of Energy under contract DE-AC52-06NA25396. By acceptance of this article, the publisher recognizes that the U.S. Government retains nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

# carbon chains.



**Table 1.**

Catalyst	Yield
Piperidine	61% ( <u>2</u> )
ethylpiperizine	70% ( <u>1</u> ) + 30% ( <u>2</u> )
-Hydroxymethyl piperizine	53% ( <u>2</u> )
-Hydroxymethyl piperizine	46% ( <u>2</u> )