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Title: CRADA LA10C10634 "Energy-Efficient Purification of Bio-Fuels and Bio-Chemicals Using a Novel Advanced Polymeric Membrane System"

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Parks, Zachary Randolph

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Cooperative Research and Development Agreement (CRADA) Final Report

In accordance with requirements set forth in DOE Order 483.1A Article X issued 11-6-2013, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of privately and/or federally funded research at Los Alamos National Laboratory

CRADA Number: LA10C10634

CRADA Title: Energy-Efficient Purification of Bio-Fuels and Bio-Chemicals Using a Novel Advanced Polymeric Membrane System

Parties to the Agreement:

Los Alamos National Laboratory
Promerus LLC

Nonproprietary Abstract of CRADA Work:

The team collaborated to develop, demonstrate and move toward the commercialization of a pervaporation membrane system, which reduces the energy required for product isolation from dilute fermentation broths. Avoiding the energy consumption associated with the latent heat of vaporization for water was the key benefit. Essentially, this work isolated high boilers from dilute feeds without evaporating water. These activities lead to the development, fabrication, and demonstration of proprietary, advanced polymer membrane cartridges that dramatically reduce the cost of bio-chemical and bio-fuel manufacture.

Summary of Research Results:

All agreement tasks and deliverables were completed per the CRADA's statement of work.

Subject Inventions Listing: None

Report Date: 5/20/2015

OSTI Release Date: 5/20/2020

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