NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Exploration of Novel Materials for Development of Next Generation OPV Devices

Cooperative Research and Development Final Report

CRADA Number: CRD-10-398

NREL Technical Contact: Dana Olson

NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.

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Cooperative Research and Development Final Report

In accordance with Requirements set forth in Article XI.A(3) of the CRADA document, 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 federally funded research.

CRADA Number: CRD-10-398

CRADA Title: Exploration of Novel Materials for Development of Next Generation OPV Devices

Parties to the Agreement: Conoco-Phillips

Joint Work Statement Funding Table showing DOE commitment:

Estimated Costs	NREL Shared Resources
Year 1	$ 25,000.00
Year 2	$ 45,000.00
Year 3	$ 00.00
TOTALS	$ 70,000.00

Abstract of CRADA work:

Organic-based solar cells offer the potential for low cost, scalable conversion of solar energy. This project will try to utilize the extensive organic synthetic capabilities of ConocoPhillips to produce novel acceptor and donor materials as well potentially as interface modifiers to produce improved OPV devices with greater efficiency and stability. The synthetic effort will be based on the knowledge base and modeling being done at NREL to identify new candidate materials.

Summary of Research Results:

New structures for organic semiconductors with potential for improved solar cell performance were evaluated computationally with initial synthetic preparations of new materials.

Subject Inventions Listing: None at this time

Report Date: 7/30/12 **Responsible Technical Contact at Alliance/NREL**: Dana Olson

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