













Development of New Absorber Materials to Achieve Organic Photovoltaic Commercial Modules with 15% Efficiency and 20 Years Lifetime

Cooperative Research and Development Final Report

CRADA Number: CRD-12-498

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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-12-498

CRADA Title: Development of New Absorber Materials to Achieve Organic Photovoltaic

Commercial Modules with 15% Efficiency and 20 Years Lifetime

Parties to the Agreement: Solvay Fluorides, LLC

Joint Work Statement Funding Table Showing DOE Commitment:

Estimated Costs	NREL Shared Resources
Year 1	\$ 00.00
Year 2	\$ 00.00
Year 3	\$ 00.00
TOTALS	\$ 00.00

Abstract of CRADA Work:

Under this CRADA the parties will develop intermediates or materials that can be employed as the active layer in dye sensitized solar cells printed polymer systems, or small molecule organic photovoltaics.

Summary of Research Results:

Materials were designed and developed for photovoltaic applications using assistance from computational predictions of material properties.

Subject Inventions Listing:

NREL No. ROI-14-56

TITLE: Strategy to Access Low Band Gap Organic Donor Materials for Organic Photovoltaics that Possess Increased Stability Toward Degradation via Fluorination of Traditional Donor Monomer Frameworks

NREL No. ROI-14-57

TITLE: Tunable 'Green Chemistry' Low Band Gap Conjugated Polymers Based Upon Functionalized Azine Linkages

Report Date: June 27, 2014

Responsible Technical Contact at Alliance/NREL: Dana Olson

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