



Development of CdS/CdTe Tin Film Devices for St. Gobain Coated Glass

**Cooperative Research and Development
Final Report**

CRADA Number: CRD-08-317

NREL Technical Contact: Tim Gessert

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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: CRD08-317 (WRA7)

CRADA Title: Development of CdS/CdTe Thin Film Devices for St. Gobain Coated Glass

Parties to the Agreement: Saint-Gobain

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:

Research performed at NREL to produce CdS/CdTe devices on St. Gobain coated-glass material to establish a baseline CdS/CdTe device process and determine baseline device performance parameters on St. Gobain material. Performance of these baseline devices compared to similar devices produced by applying the established baseline CdS/CdTe process on alternative St. Gobain coated-glass materials.

Summary of Research Results:

Research results detailed in papers presented at 2010 Spring Meeting European Materials Research Society and 36th IEEE Photovoltaics Specialists Conference. Two papers resulted from research are indicated below.

1. R. Dhere, M. Bonnet-Eymard, E. Charlet, E. Peter, J. Duenow, J. Li, D. Kuciauskas, and T.A. Gessert, "CdTe Solar Cell with Industrial Al:ZnO on Soda-Lime Glass," *Thin Solid Films* **519** (21), 7142-7145 (2011).
2. R. Dhere, M. Bonnet-Eymard, J.N. Duenow, H. Moutinho, J. Li, M. Scott, D. Albin, T.A. Gessert, "The Effect of Deposition Temperature on Device Properties of Difference TCO's and Glass Substrates," To Be Pub. Proc. 35th IEEE PVSC, Hawaii, June 21-25, 2010.

Subject Inventions listing: None

Report Date: February 1, 2012

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