



CIGS-Based Thin-Film PV

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Solyndra Introduction

- Location: Fremont, California, USA
- Technology: CIGS
 - vacuum deposition: CIGS, Mo back contact, i-ZnO/Al:ZnO window
 - wet chemical CdS junction partner
 - monolithic cell interconnect
- Substrate: Glass; 1.1 m width
- Non-standard cell form-factor and packaging
- System Design Approach to lower total installed cost and lower cost of photovoltaic electricity
- Market Target: low slope rooftops

Technology Co-Operations

- Recycling and Environmental Aspects (joined PV-CYCLE)
 - LCA
 - Process waste material reclamation
 - End-of-use module collection & recycling
- Raw Material Sourcing Aspects
 - Evaporation feedstock supply chain and purity (Cu, In, Ga, Se)
 - Sputter target supply and quality; rotary targets (Mo, i-ZnO, Al:ZnO)
 - Glass substrate supply, potentially Mo-coated glass
- Cd-free buffer
- TCO optimization
- IEC standards (member of IEC TC82)
 - Performance
 - Reliability
 - Safety
 - Reference cells
- Employee sourcing
 - develop university PV programs