

## Isaiah Oladeji



PI at Planar Energy

Electrical/Electronic Manufacturing

<http://www.directoryinventor.com/profile/view/zjnW7Whc>

## Experience

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### PI

#### Planar Energy

Privately Held; Renewables & Environment  
January 2010 - Present

Overseeing the transfer of SISOM's technologies for the manufacturing of large format all solid state lithium ion batteries

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### President/CTO/Founder

#### Sisom Thin Films LLC

Electrical/Electronic Manufacturing  
April 2008 - Present

Sisom Thin Films is a venture backed company that specializes in research and development of semiconductor materials for solar cell, thin film battery, LED, and sensor applications. The current company focus is development of next generation low cost thin film solar cells, and batteries.

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### President/CEO/Founder

#### SolMax Technologies LLC

Electrical/Electronic Manufacturing  
October 2006 - Present

SolMax Technologies specializes in design, development, and installation of alternative energy systems, using our wealth of understanding in theoretical and practical aspects of photovoltaics.

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### Manager Cu BEOL Intergration

#### ATMEL

Public Company; Semiconductors  
September 2003 - February 2006

Architect and manager of Cu interconnect technology development line: Selected all the Cu line tools; put the Cu/FSG process integration scheme together; took less than one year from tool acceptance to the Cu BEOL technology qualification and transfer to manufacturing; put the thick Cu inductor/BCB integration scheme together for RF devices; qualify the latter and transfer the process to manufacturing in less than 6 months. Developed MIM capacitors process for RF application.

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## Senior Integration Engineer

### CHARTERED SEMICONDUCTOR MANUFACTURING Singapore

Electrical/Electronic Manufacturing

January 2002 - October 2002

Responsible for the integration of FTEOS, Cu barrier, Cu seed, electroplated Cu, Cu CMP, cleans to the backend of 0.13 um devices. Developed an integration scheme for a new Cu ECP chemistry that increased the device yield by more than 30%. Put in place etch, Cu barrier/seed, and Cu ECP process integration scheme that improved the Cu interconnect EM performance beyond that of the qualification requirement. Developed an integration scheme that eliminated Cu galvanic and photo corrosion and improved Cu interconnect reliability and performance.

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## Member of Technical Staff

### LUCENT TECHNOLOGIES (BELL LABS)/AGERE SYSTEMS

Electrical/Electronic Manufacturing

November 1999 - January 2002

Responsible for the integration of low-k, Cu barrier, Cu seed, electroplated Cu, and packaging to the backend of 0.12/0.13 um devices. Conducted a fast track research using the manufacturing line that lead to the selection of manufacturing friendly low-k material. Studied the interaction of low-k material with Cu CMP and put in place an integration scheme that has improved the reliability and yield of our low-k based devices. Designed and put in place a pad structure scheme for low-k based devices that can withstand wire-bonding stresses. Developed a comprehensive process integration scheme for low-k device with improved EM performance.

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## Research Assistant

### Uni. of Central Florida

10,001+ employees; Educational Institution; Higher Education

January 1994 - August 1999

Grown and characterized ZnS/CdS, and CdTe thin films, and fabricated CdTe thin film solar cells. Also successfully conducted research on: Chemical bath deposition of CdS, ZnS thin films; growth of fullerene by plasma enhanced CVD; method of calibration of mass microbalances based on the deposition of Langmuir Blodgett films.

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## Teaching Assistant

### Uni. of Central Florida

10,001+ employees; Educational Institution; Higher Education

January 1994 - August 1999

Taught various undergraduate laboratory courses.

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## Fulbright Scholar

### FLORIDA SOLAR ENERGY CENTER

Electrical/Electronic Manufacturing

August 1992 - April 1993

Grew CdS window material for thin film solar cells; audited 'Photovoltaic Solar Cell Materials' class.

## Assistant Lecturer

### UNIVERSITY OF ILORIN

Electrical/Electronic Manufacturing

May 1990 - August 1992

Taught various undergraduate courses; served as student advisor, assistant project and seminar coordinator, and carried out research on bulk ZnO/CuO solar cells.

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## Education

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### University of Central Florida

Physics

1998 - Present

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### University of Ilorin

Physics

1990 - Present

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### University of Ilorin

Physics

1987 - Present

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### University of Central Florida

Physics (Experimental Condensed Matter Physics and Microelectronics)

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### Baptist High School, Saki

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## Patents (30)

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### [Method of forming a solid state cathode for high energy density secondary batteries](#)

Isaiah O Oladeji

August 19, 2014: 08808405

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### [Method of forming a solid state cathode for high energy density secondary batteries \(1 worldwide citation\)](#)

Isaiah O Oladeji

June 18, 2013: 08465556

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### [Zinc oxide film and method for making](#)

Isaiah O Oladeji

April 9, 2013: 08414971

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### [Method of forming solid state electrolyte having high lithium ion conduction and battery](#)

## **incorporating same**

Isaiah O Oladeji

February 12, 2013: 08372163

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## **Method of forming solid state electrolyte having high lithium ion conduction and battery incorporating same**

Isaiah O Oladeji

January 8, 2013: 08349498

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## **Method of forming solid state electrolyte having high lithium ion conduction and battery incorporating same**

Isaiah O Oladeji

December 20, 2012: 20120317797-A1

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## **Method for fabricating copper-containing ternary and quaternary chalcogenide thin films (1 worldwide citation)**

Isaiah O Oladeji

July 24, 2012: 08225744

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## **Method of forming a solid state cathode for high energy density secondary batteries**

Isaiah O Oladeji

June 7, 2012: 20120137508-A1

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## **Method for fabricating conducting plates for a high-Q MIM capacitor (1 worldwide citation)**

Isaiah O Oladeji, Alan Cuthbertson

September 20, 2011: 08022548

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## **Solid state electrolytes having high lithium ion conduction**

Isaiah O Oladeji

July 14, 2011: 20110171528-A1

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[View all \(30\)](#)