

# AUBREY L. HELMS, JR. (Ph.D)

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## PRIMARY INTERESTS:

Technical analysis and assessment of potential investment opportunities. IP asset analysis and Mergers & Acquisitions technical due diligence. Patent application prosecution in the fields of semiconductor processing, chemistry, physics, materials science, mechanical hardware, and new business methods.

## HIGHLIGHTS/SKILLS:

- Registered Patent Agent - #56,805
- Completed drafts of >30 patent applications
- Technical due diligence for M&A
- Proven track record for technology and development management
- Broad international experience
- Thin films and diffusion technologies

## EXPERIENCE:

### Tiger Venture Analysis, Inc. Los Gatos, CA (March, 2004 - Present)

2004 - Present

President/CEO (Founder)

- Founded Consulting firm to provide technology services to VC Groups, Companies engaged in acquisitions, Start-ups, and Law firms.
- Services include. M&A Due Diligence, Technology risk assessment, Technology roadmap alignment, Project management, New Product Introduction planning, Patent application drafting, and Litigation support.

### Aviza Technology Inc. [Formerly ASML (Thermal Division)], Scotts Valley, CA (July, 1995 – March, 2004)

1997 - 2004

Vice President of Technology

1995 - 1997

Director of Technology

- Managed development of > 5 new products for ASML Thermal Division
- Implemented Product Development roadmap for ASML Thermal Division
  - Developed and implemented > 10 new furnace processes
  - Achieved leadership position in ALD technology for gate dielectrics
- Established process that generated > 94 patents in 8 years
  - Division focal point for outside counsel, IP portfolio, budget & related issues
- Technical Due Diligence during 5 Mergers & Acquisitions activities
  1. Management Team/Due Diligence Team during recent sale of ASML Thermal Division
  2. Due Diligence Team during SVG purchase of Semiconductor Equipment Group of Watkins-Johnson – Team Leader for IP issues
  3. Due Diligence Team during ASML purchase of SVG – SVG interface for IP issues
  4. Due Diligence Team during SVG attempted purchase of High Pressure product
  5. Due Diligence Team during ASML discussions with other possible acquisitions (> 4)
- Managed Applications Lab, Development programs, and cleanroom
  - 5 cleanrooms, > 25 systems, metrology, cleanroom infrastructure, etc.
- Managed Field Process Support for systems worldwide (>35 people and > 2000 systems)
- Made > 150 technical presentations to Customers worldwide
- Responsible for Engineering budget (28 of 33 straight quarters of maintaining a +3% -5% budget control)

**Varian Associates (Thin Film Systems Division), Palo Alto, CA (March 1993 - July, 1995)**

1993 - 1995

**Manager, Process Operations**

- Managed 15,000 ft<sup>2</sup> cleanroom Applications Lab with 4 capital systems, metrology and reclaim.
- Responsible for installation of > 36 new systems
- Scheduled and prioritized Customer activities
- Managed 9 Field Process Support Engineers for > 100 PVD systems worldwide
- Successfully concluded 6 Joint Development Projects with Customers
- Made > 35 technical presentations to Customers worldwide

**Lam Research (CVD Division), Fremont, CA (June 1990 - March, 1993)**

1992 - 1993

**CVD Process Manager**

1991 - 1992

**Process Supervisor**

1990 - 1991

**Senior Process Engineer**

- Managed development of new films on the Lam Integrity CVD reactor
- Scheduled and prioritized Customer Demonstrations of the technology
- Made > 50 technical presentations to Customers worldwide
- Interfaced with Sales and Marketing to write specifications and quotations
- Hands-on development and qualification of new films
- Responsible for Process Group budget

**AT&T Bell Laboratories, Princeton, NJ (November 1985 - June, 1990)**

1985 - 1990

**Member of Technical Staff**

- Materials Science research in a PVD group
- Developed diffusion barriers for use with Al metallization (TiN, TaN, WN, TiB<sub>2</sub>, etc.)
- Developed interconnection materials for use with Multi-Chip Module Technology
- Developed materials for GaAs ICs
- Made equipment selection decisions to enhance the capabilities of our group
- Made upgrades to existing equipment to improve performance

**EDUCATION:****Ph.D. Princeton University, Advisor: Dr. Steven Bernasek, Chemistry Department, Nov., 1985**

Thesis: Investigation of the Surface Defect Structures on Single Crystals of Molybdenum, Nickel, and Bismuth Induced by Pulsed Laser Irradiation: Characterization by LEED and He<sup>+</sup> Ion Channeling

**M.A. Princeton University, Advisor: Dr. Steven Bernasek, Chemistry Department, June, 1983****B.S. St. Andrews College, Chemical Physics, May, 1981****PATENTS AND PUBLICATIONS:**

- 7 Patents/Applications
- 30 Publications

**MEMBERSHIPS:**

- Member of SEMI
- Member of American Intellectual Property Law Association
- Member of VC – Private Equity Roundtable
- Member of Association for Corporate Growth – Silicon Valley Chapter
- Member of Keiretsu Forum – Silicon Valley Chapter
- Advisory Board member of 4 Early Stage companies