

---

---

# ROBERT H. PAGLIARO, JR.

6617 E. Saddleback Street  
Mesa, Arizona 85215

(480) 703-5054  
rpagliaro1126@msn.com

---

---

## SUMMARY OF QUALIFICATIONS

---

Extremely motivated and results-driven engineer and manager with exceptional leadership skills and an extensive background in the following broad-based competencies:

PROJECT MANAGEMENT

MANUFACTURE MANAGEMENT

ENGINEERING MANAGEMENT

PROCESS ENGINEERING

PRODUCT MANAGEMENT

STRATEGIC PLANNING

EQUIPMENT ENGINEERING

QUALITY IMPROVEMENT

TECHNOLOGY SOLUTIONS

- Acclaimed innovator, author of 13 internationally published papers and 11 patents with semiconductor manufacturing applications.
- Selected for recognition in “Who’s Who in America” and “Who’s Who International”, in 1987 and 2000 respectively, for outstanding professional accomplishments in engineering.
- Recognized specialist, member of prestigious professional organizations including Electrochemical Society, Institute of Electrical and Electronics Engineers and Project Management Institute.

## PROFESSIONAL EXPERIENCE

---

RP INNOVATIVE ENGINEERING SOLUTIONS, LLC - *Mesa, Arizona*

**2010- present**

***Founder /President***

Established to provide consulting services for front end silicon semiconductor processing applications as well as providing a proprietary wet cleaning equipment product line which incorporates innovative technologies and leading edge process capabilities.

ASM AMERICA – *Phoenix, Arizona*

**2005 - 2007**

***Senior Staff Engineer***

Rehired to commercialize surface preparation IP.

Responsibilities also included a role to develop enhancements which further enabled the process capabilities of the original IP.

- Sourced and qualified an equipment manufacturer (APET Co., Ltd.) to partner in the meshing of ASM’s process IP onto their existing tool platform, allowing for the commercialization of the existing and new surface preparation processes.
- Defined, procured, facilitated and fully characterized a demo tool with these processes as a marketing device for this partnership.
- Facilitated a licensing agreement which was established between ASMA and APET in September 2007.
- Submitted two patent applications in the category of surface preparation technology, one of which had been issued international patents in January 2009.

BOC EDWARDS – *Phoenix, Arizona*

**2004**

***Senior Product Manager for Component Technologies***

Positioned to develop and execute product plans for new component cleaning, surface enhancement, refurbishment and re-engineering technologies.

- Identified customer needs in terms of improvement of semiconductor tool kit performance and cost of ownership,
- Championed a Concept-to-Commercialization (C2C) team for new and existing product improvement projects to insure that all internal engineering and business requirements were established and achieved for each project.
- Developed business cases/ plans, monitored competitor activity, identified beta sites and collected/assessed the beta site results,

---

---

# ROBERT H. PAGLIARO, JR.

6617 E. Saddleback Street  
Mesa, Arizona 85215

(480) 703-5054  
rpagliario1126@msn.com

---

---

ATMI INCORPORATED – *Mesa, Arizona*

**2002 - 2003**

***Director of Engineering and Quality Improvement Processes***

Selected by the major provider of products and services to the semiconductor industry to restructure and manage Process Engineering, Customer Qualifications and Equipment Development Engineering groups. Duties entailed supervising professionals and support staff, approving new customers' qualifications, enforcing corrective action plans for established clients, implementing new equipment designs and upgrades to existing tools for quality and utilization optimization and supporting sales and operations. Implemented a new cultural environment by incorporating Project Management (PM), Knowledge Based Management (KBM) and Design for Six Sigma (DFSS) methodologies into the engineering department's day-to-day activities.

- Awarded "A-Player" recognition in March 2003 for outstanding performance.
- Restructured engineering activities which significantly increased the rate of completed development projects, customer qualifications and reduced customer complaints by approximately 90%.
- Raised monthly orders significantly by successfully executing key qualifications and improving productivity and process capabilities
- Designed and implemented a conversion kit for a multi-wafer tool from a conventional commercially available single wafer epitaxial reactor allowing for higher throughput, enhanced process capability, and at a significantly lower cost than commercially available tools.

IQE SILICON COMPOUNDS – *Cardiff, Wales, United Kingdom*

**2000 - 2002**

***Manager of Technology***

Recruited by a silicon epitaxial foundry to start up a semiconductor processing facility. Responsibilities included hiring technical staff; selecting, purchasing, installing and qualifying equipment; coordinating factory layout; implementing key technical procedures; interfacing and customers and suppliers; and supporting sales department.

- Met key goals of 3 year start-up plan in less than 2-years (21 months).
- Participated as the technical component of the task force which led to the success of achieving ISO 9002 certification in six months from the start of operations on the first pass through establishing and strictly adhering to critical processes and protocols.
- Developed and implemented "world class" (patented) surface preparation methods for low temperature processing.

ASM AMERICA – *Phoenix, Arizona*

**1997 - 2000**

***Senior Program Manager of Process Development and Technical Advisor for the Defect Reduction Program***

Chosen by a leading semiconductor equipment manufacturer to oversee process and equipment development.

Position involved supporting demo laboratory, sales and marketing for achieving successful customer qualifications, consulting for defect reduction program, developing-optimizing-implementing wet cleaning processes/equipment and optimizing- implementing measurement systems for analyses of epitaxial layers and silicon surfaces.

- Initiated and led project to acquire, characterize and qualify critical metrology tools and set up analytical services lab in class 1000 cleanroom allowing ASMA to have excellent in-house wafer and layer characterization capabilities.

***Senior Manager of Process Development and Technical Advisor for the Defect Reduction Program***

- Filed two patent disclosures for an APCVD epitaxial process for suppressing auto-doping on silicon wafers and for oxide-free silicon wafer wet cleaning process. Patent issued for the wet cleaning process.
- Enhanced hydrophobic silicon surface process, improving particle removal efficiency to 95% without preliminary surface cleaning process while maintaining other characteristics.

---

---

# ROBERT H. PAGLIARO, JR.

6617 E. Saddleback Street  
Mesa, Arizona 85215

(480) 703-5054  
rpagliari1126@msn.com

---

---

MOTOROLA – *Mesa, Arizona*

1990 - 1997

***EPI Engineering Section Manager***

Advanced through a series of positions with increasingly challenging assignments that included Senior Staff Engineer and Engineering Manager to assume responsibility for continuous process and equipment improvements for the leading communications company. Duties encompassed assuring that the wafer yields and throughput met departmental goals, developing and setting up epitaxial and buried layer diffusion manufacturing processes for key device technologies, engineering and qualifying starting wafer specifications and managing test wafer utilization and reclaim program.

- Led start-up of 200 mm epitaxial processes achieving 95% first pass yield that exceeded the goal by 15% through the use of Design of Experiments for process development and optimization, and proper selection of the epitaxial tools, metrology and wafer handling equipment.
- Designed and implemented an extended heat-zone kit for 11 AMT7600 epitaxial reactors, achieving throughput increase between 33% and 100% while maintaining high quality.

CINCINNATI MILACRON – *Maineville, Ohio*

1988 - 1990

***Project Manager***

Joined one of the major suppliers of silicon wafers to manage wafer manufacturing equipment and processes. Scope of responsibility included leading a team of engineers and technicians in sustaining manufacturing, development and delivering projects with the budgets of up to \$500,000.

- Developed equipment enhancements such as an IR heating system interfaced to an inductively heated vertical epitaxial reactor that minimized thermal gradients, resulting in reduced slipped die loss from 30% to less than 1%.
- Designed, setup and qualified equipment and processes for LTO (low temperature oxide) back seal area.

RCA LABORATORIES – *Princeton, New Jersey*

1979 - 1988

***Associate Member of the Technical Staff***

Selected by a leading semiconductor company to take charge of research and development of homo- and hetero-epitaxial processes and equipment engineering.

- Awarded two patents for inventing the process associated with dielectrically isolated selective silicon and tungsten silicide.
- Co-invented five patents for selective epitaxial processes.
- Earned prestigious David Sarnoff Outstanding Achievement Award for developing and transferring of production-ready epitaxial processes into two manufacturing facilities.

---

## EDUCATION AND CERTIFICATION

RUTGERS UNIVERSITY

*New Brunswick, New Jersey*

***Masters Degree Credits in Materials Science***

THOMAS EDISON STATE COLLEGE

*Trenton, New Jersey*

***Bachelor of Science in Physics/Natural Sciences***

***Associate of Science in Electrical Engineering Technology***

PROJECT MANAGEMENT INSTITUTE

*Upper Darby, Pennsylvania*

***Project Management Professional Certification***

AIR ACADEMY ASSOCIATES

*Colorado Springs, Colorado*

***Design for Six Sigma Certification***