

Michael D. Besket

(805) 208-0510 • Michael.Besket@gmail.com

Linked In profile: www.linkedin.com/pub/michael-besket/22/9ba/356/

SUMMARY OF SKILLS:

A manufacturing process engineer with experience in microelectronics fabrication A hands-on approach to process and equipment engineering in high vacuum and laser processing A results-oriented leader, mentor, and trainer

COMPETENCIES:

High Vacuum:

Evaporation
Sputtering
Ion sources
Equipment troubleshoot & repair
Equipment maintenance

Plasma etching:

Isotropic polyimide etching
RIE polyimide etching
Plasma cleaning
Equipment troubleshoot & repair
Equipment maintenance

Software:

AutoCAD
Minitab
esiCAM
Microsoft Office
Lotus Notes

Laser processing:

Microvia drill: thin flex circuits
Micromachining: thin flex circuits (UV, CO2)
Program generation
Equipment maintenance
Equipment troubleshoot & repair

Other skills:

Documentation
Training
Project leadership
Capital equipment selection/procurement
Equipment installation
Mentor

EXPERIENCE:

Manufacturing Engineer, Laser & High Vacuum Processes
3M Company, Canoga Park, CA

1/2006-3/2014

Accomplishments:

Lean Six Sigma Green Belt training

Equipment Specification and Installation:

- Conveyorized spray cleaning process for copper foil cleaning
- Research and specified new UV Laser micro-machining system.
- CO₂ laser micro-machining system: developed processes for multiple copper foil types and multiple polyimide thickness
- Oversaw the installation/refurbishment of re-located UV laser system
- RIE style plasma etcher for flexible PCB production
- Developed etching and cleaning processes for new RIE plasma etcher

Implemented process techniques to reduce particulate contamination (sputtering) working cooperatively with production department

Developed training requirements with documentation and qualification tests for laser operators

Created training documentation for copper etch process (for a fellow process engineer's process area)

Responsibilities:

- **Define** and **document** fabrication processes
- **Optimize** multiple manufacturing processes
- **Investigate/resolve** process issues as they arise
- **Develop** and document equipment maintenance procedures and schedule maintenance for least disruptive impact on production
- **Research, specify, recommend, and acquire** budget approval for new capital equipment purchases and oversee all aspects of installation and validation
- **Train** technicians and supervisors on new equipment and processes

Michael D. Besket (page2 of 2)

Michael.Besket@gmail.com

Process Engineer
Siemens Ultrasound, Canoga Park, CA

11/2000-12/2005

Accomplishments:

Maintained operation of obsolete CO₂ laser system to enable production to continue
Researched, specified, acquired budget approval for two **UV laser systems** and oversaw installation and implementation
Developed process and documentation for **UV laser micro-machining (trained operators)**
Established procedures and documents for laser programming using AutoCAD and esiCAM

Responsibilities:

Sustaining engineering of sputtering, plasma etching, and laser processes
Equipment troubleshooting and repair of sputtering system, plasma etcher, **UV and CO₂ lasers**

Process Engineer (promoted from Prototype Technician)
Acuson Corporation, Canoga Park, CA

2/1992-10/2000

Accomplishments:

Installed CO₂ laser system: developed, documented process and procedures (**trained operators**)
Researched and selected sputtering system vendor, secured capital budget approval, installed equipment, and developed sputtering processes (**interviewed, selected and trained operators**)
Used designed experiments to develop low-Fluorine plasma etching and cleaning processes

Responsibilities:

Sustaining Engineering: sputtering, plasma etcher, CO₂ laser
Equipment troubleshooting and repair of: sputtering system, plasma etcher, CO₂ laser system
Expedited prototype flexible printed circuits for medical ultrasound (prototype tech)
Ensured flex circuit prototypes moved smoothly through pilot production phases (finding and correcting issues)(tech)

PREVIOUS EXPERIENCE:

GaAs wafer fabrication:

Process development and sustaining
Metal and "cermet" sputtering
High vacuum metal evaporation
PECVD deposited SiO₂ and Si₃N₄ thin films

Process equipment repair and maintenance:

E-beam evaporation
Magnetron DC and RF sputtering
PECVD system

Thin film processing and vacuum PVD system repair and maintenance

Rebuilt two high vacuum systems

Production Supervisor

Development of prototype optical data storage media

Bipolar silicon wafer fab experience

EDUCATION & PROFESSIONAL DEVELOPMENT COURSES:

Undergraduate courses in math & science at Moorpark College

American Vacuum Society Short Courses:

Evaporation
Sputtering
Plasma Processes
Ion Sources
Reducing Contamination in High Vacuum Systems

Emergency response team training (40 hour course)
CPR and first aid
ESI Laser Applications Course