

Your Solar Wet Process Development Partner

Let us run
Your Wafers
to prove
our process
capabilities

NAURA Akrion, Inc. has a full line of wet processing solutions to support your solar cell wet processing needs. The systems incorporate the technology and platforms that we have developed in 20 years of engineering over 1400 wet processing systems.

Our solar products include the GAMA-Solar and V3-Solar wet process systems. Our platforms adapt to a variety of applications with minimal modifications.

Our philosophy is that we partner with our customers to provide unparalleled process and equipment support. Our staff of process engineers will work with you to develop new processes, optimize your existing processes or solve problems with your existing line.

NAURA
AKRION

PROCESS DEVELOPMENT PILOT LINE

- GAMA is ideally suited to support low volume pilot production lines
- One single tool can be easily configured to address multiple process steps
- Flexible software allows for multiple recipes, multiple uses of process tanks, and process times that vary by recipe
- Recipes include processes for: alkaline texturization, isotexture (acidic texturization), and phosphorus glass (PSG) etch and clean
- Integrated chemical blending, dosing
- Bleed and feed capabilities for extending bath life
- Ability to monitor and control all key process parameters



GAMA
SOLAR

OUR STATE-OF-THE-ART APPLICATIONS LABORATORY HELPS YOU FINE TUNE YOUR PROCESS

Fully Functional GAMA System to Refine Current Processes & Develop New Applications

PhD scientists with years of wet process experience

Capable of running any size solar wafer

All chemistries are available

Advanced metrology capabilities for analyzing wafer characteristics including:

Spectrometer - measures reflectivity

Ellipsometer - measures thin film

Optical Microscope - for defect and surface topography analysis

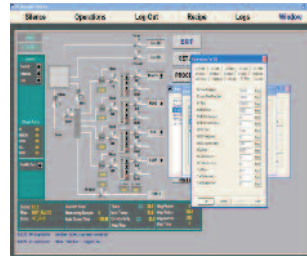
Scanning Electron Microscope - for defect and surface topography analysis

NAURA AKRION DIFFERENCE:

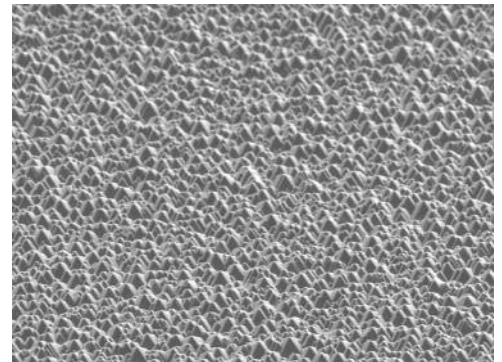
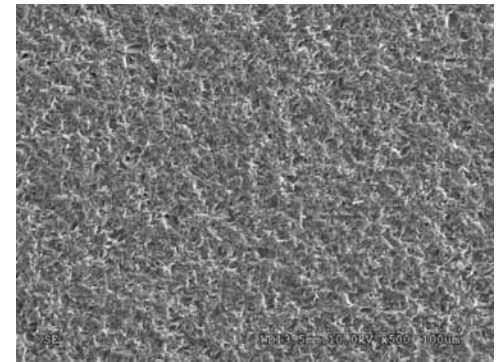
- Worldwide process support
- 24 x 7 technical support
- Experienced service staff
- Experienced management team
- ISO 9001:2000 compliant quality management

LOWER COST PROCESS DEVELOPMENT TOOL

- Our V3-Solar is an inexpensive tool to facilitate your process development needs
- System is very flexible, with a small footprint, low cost/low throughput tool to develop leading edge solar processes
- Semi-automated platform - up to 3 tanks per robot with 25 or 50 wafer lots
- Small process tanks and reduced chemical consumption with integrated chemical blending, dosing and no required external cabinets
- System is capable of running processes on any size solar wafer
- Ability to monitor and control all key process parameters
- Windows® XP™ Operating System and comprehensive SECS GEM Interface that allows key process parameter monitoring
- CE and UL Certified with reliability >1000 hours MTBF (per SEMI E10-96)
- Includes startup by NAURA Akrion process engineer



PROCESS EXPERTISE



SEM Photos showing wafer as cut (top) & after processing with GAMA-Solar monocrystalline isotexture process

Options Include:

- Integrated dryer
- Chemical monitoring and closed-loop concentration control systems
- FM compliant materials of construction
- Processes developed on the V3 Solar Platform are easily transferable to the GAMA-Solar production platform

Get Access to PhD scientists with decades of wet process experience!