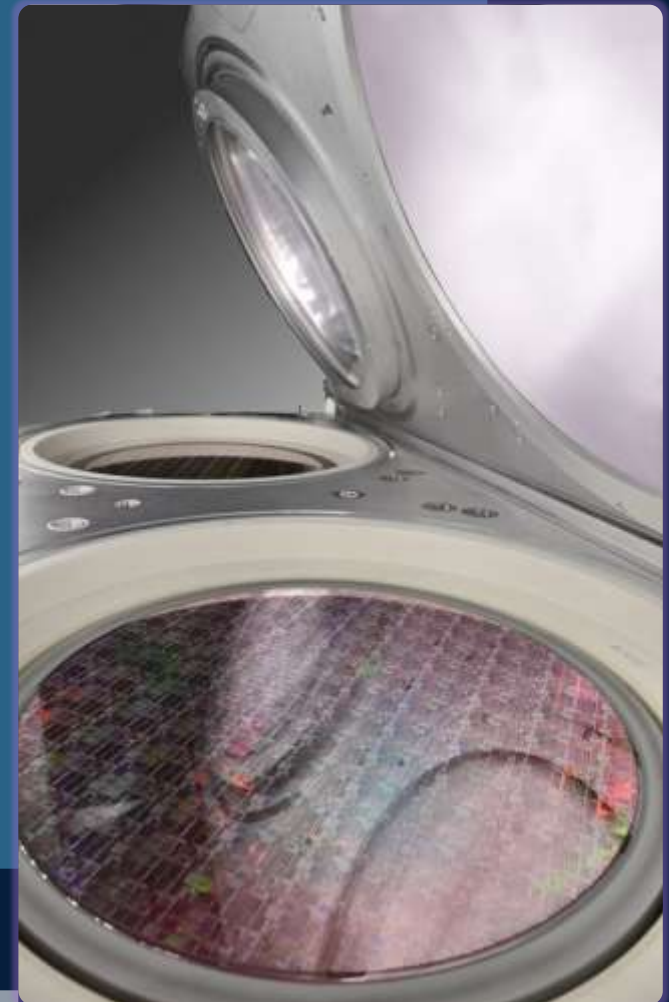




Nanocure™ 3 Ultraviolet Light Curing System

Silicon Systems Group

July 12th, 2011



Safe Harbor

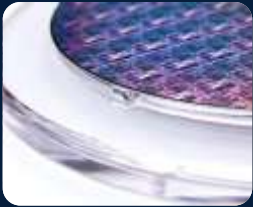
These presentations contain forward-looking statements, including those regarding market outlooks; technology roadmaps; the proposed Varian merger; and Applied's market positions, products, growth opportunities, strategies and business outlooks. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements, including but not limited to: the level of demand for Applied's products, which is subject to many factors, such as uncertain global economic and industry conditions, demand for electronic products and semiconductors, government renewable energy policies and incentives, and customers' new technology and capacity requirements; the satisfaction of conditions precedent to the proposed merger with Varian, including the ability to secure regulatory approvals in a timely manner or at all; Applied's ability to (i) develop, deliver and support a broad range of products and expand its markets, (ii) align its cost structure with business conditions, (iii) successfully execute its acquisition strategy and realize synergies, (iv) obtain and protect intellectual property rights, and (v) attract, motivate and retain key employees; and other risks described in Applied's SEC filings. All forward-looking statements are based on management's estimates, projections and assumptions as of July 12, 2011, and Applied undertakes no obligation to update any forward-looking statements.

New Products Released At 2011 Semicon West

TRANSISTOR-ENABLING PRODUCTS



Reflexion GT™ for Tungsten



Vantage® Vulcan™ RTP

Centura® DPN HD



Endura® Versa™ XLR W PVD

Endura® HAR Cobalt PVD

Centura® Integrated Gate Stack



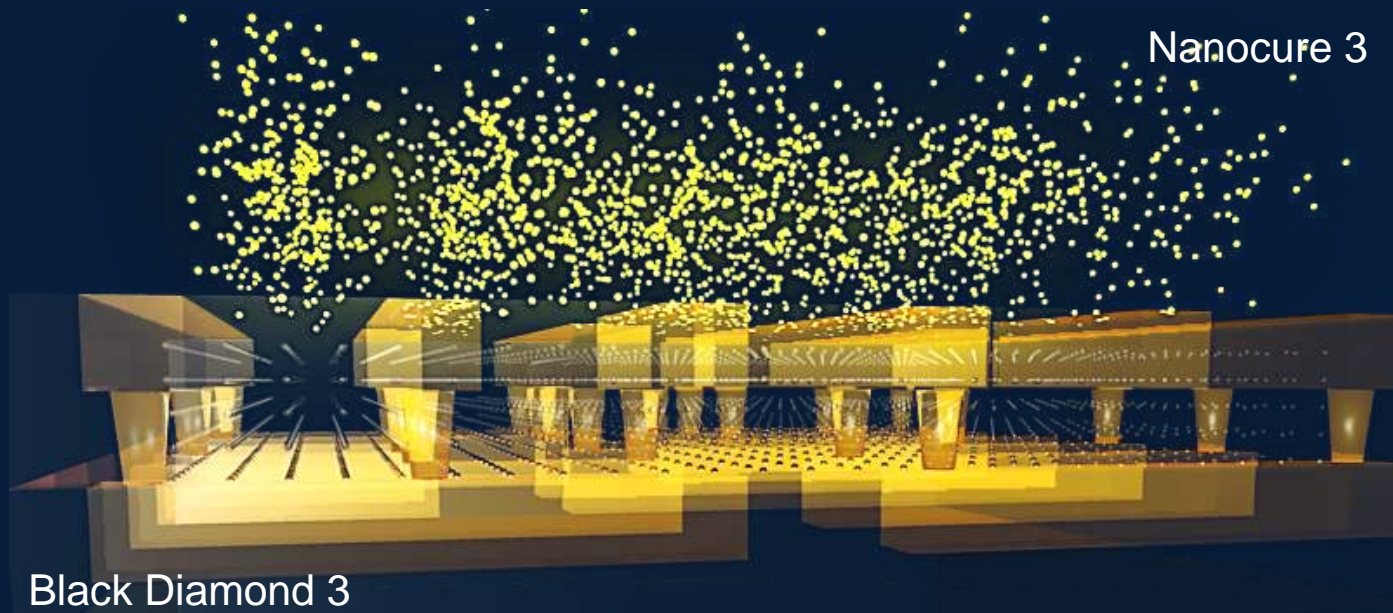
Producer® Black Diamond™ 3

Producer® Nanocure™ 3



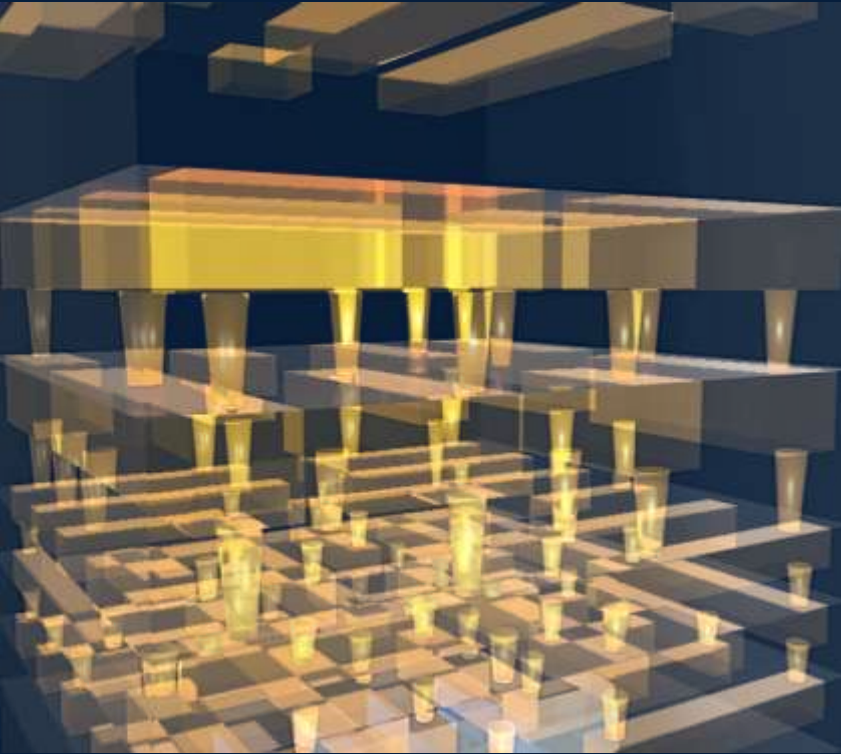
INTERCONNECT-ENABLING PRODUCTS

Nanoscale Engineering With UV Light



Ultraviolet (UV) light energy treatment introduces porosity and strengthens bond structures inside the film

Unlock Full Potential Of Porous Low-k Films



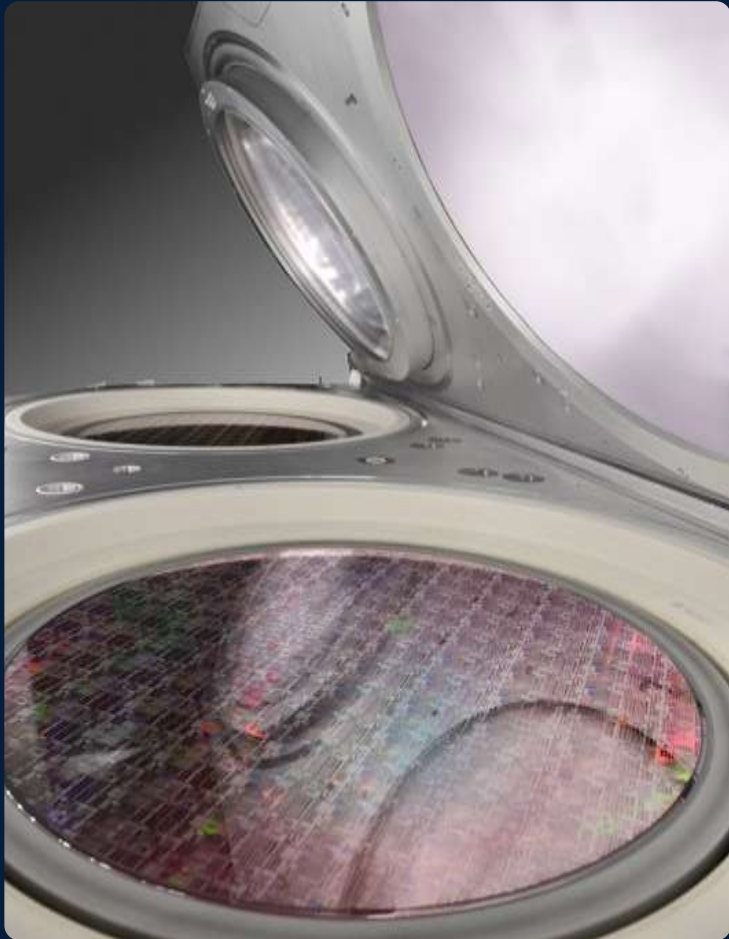
Multilevel low-k layers formed with Nanocure system

Deliver lower k value of film for lower power consumption

Maximize mechanical strength of the film for higher packaging yield

Provide uniform film curing to lower variability in device performance

Advancing UV Curing To 2X nm Node



Nanocure 3 System

Uniform

Revolutionary optics delivers uniform cure

Robust

Optimized UV intensity wafer to wafer

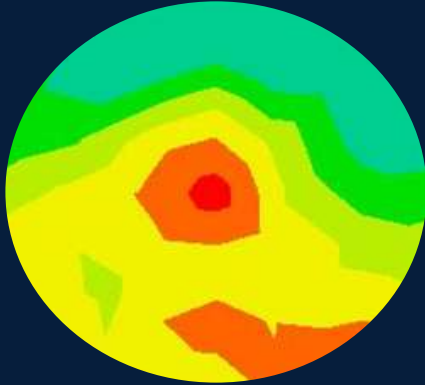

Clean

Unique ozone process for low defectivity

Fast

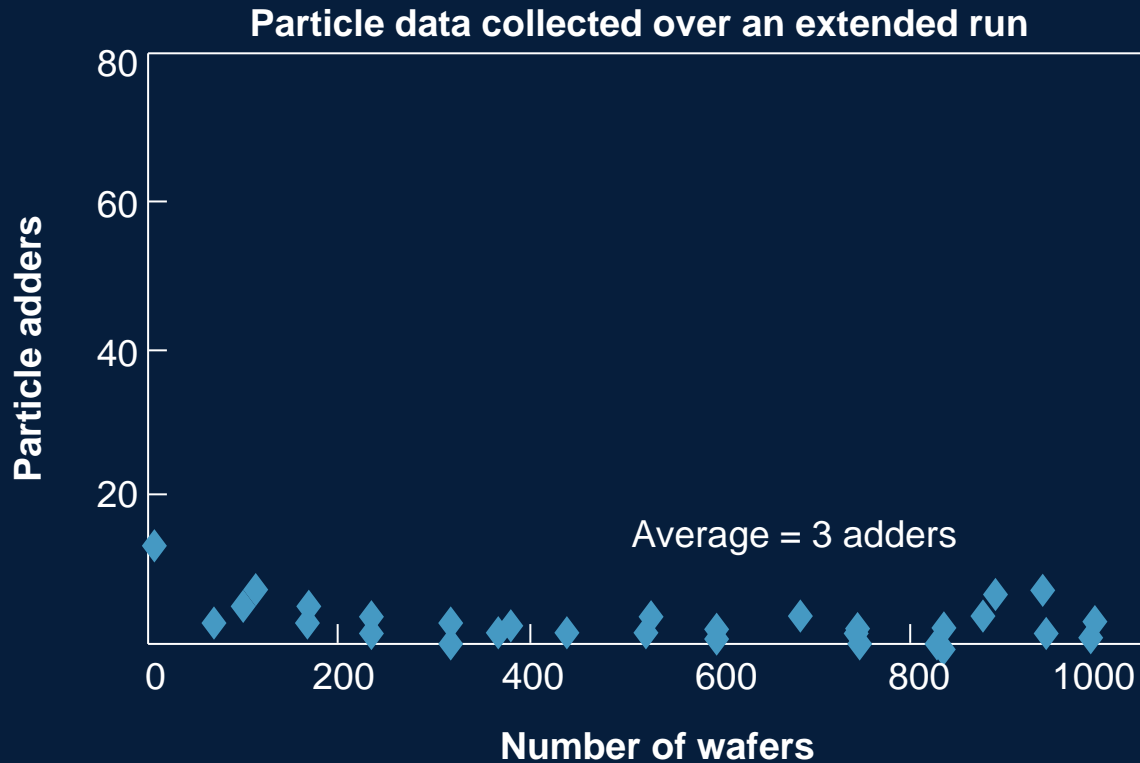
40% faster cure times than competition

New Chamber Provides Uniform Cure

Parameter	Conventional UV Cure	Nanocure 3
Shrinkage Uniformity Map		
Shrinkage Uniformity (% ,1s)	3.0	1.6
Shrinkage Range (%) (Max-Min)	1.8	1.0
E&H Uniformity (GPa) (Max-Min)	0.8 / 0.1	0.3 / 0.04

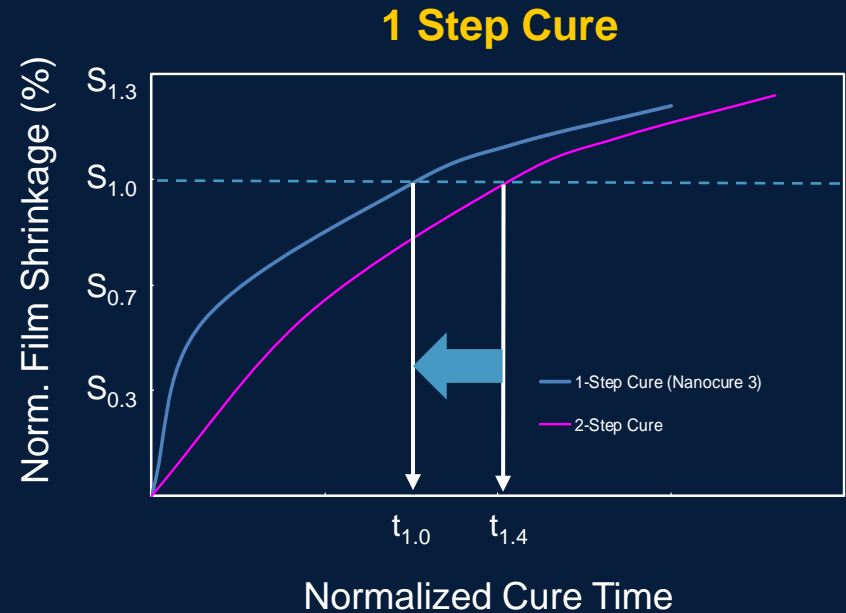
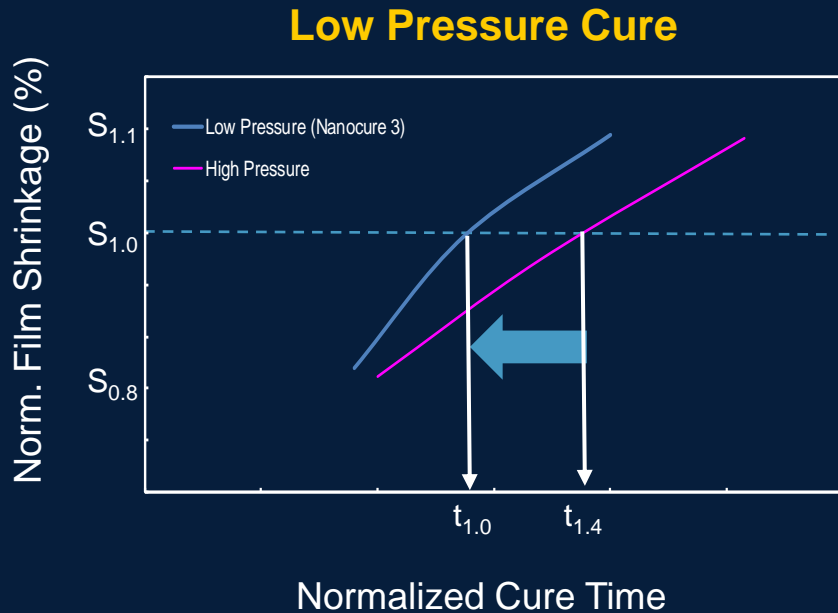
- ✓ 50% more uniform UV cure
- ✓ Tighter modulus and hardness metrics

Ozone Technology Offers Clean Cure



- ✓ Novel **UV assisted Ozone clean** technology
- ✓ Leading edge solution for lower defects at small device nodes

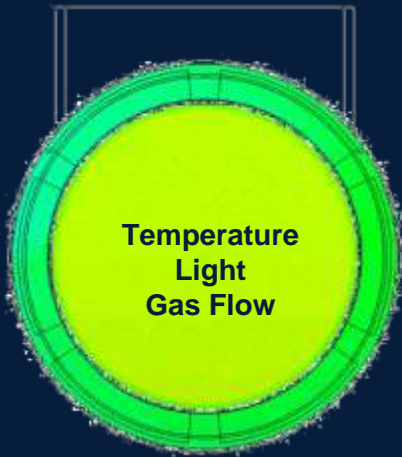
Process Innovations Enable Fast Cure



- ✓ Up To 40% faster curing times over conventional cure approach
- ✓ Market leading cure speed

Technology Leadership in Nanocure

Uniformity

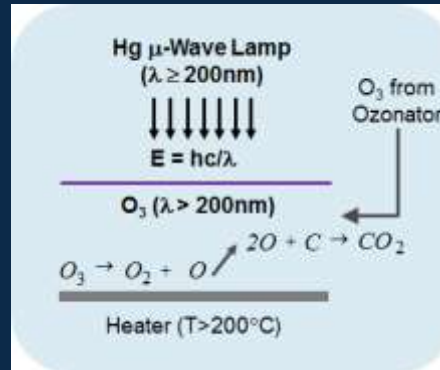


Revolutionary optics provides uniform light distribution on wafer

Innovative chamber design offers uniform gas flow

Leading on-wafer uniformity

Defectivity

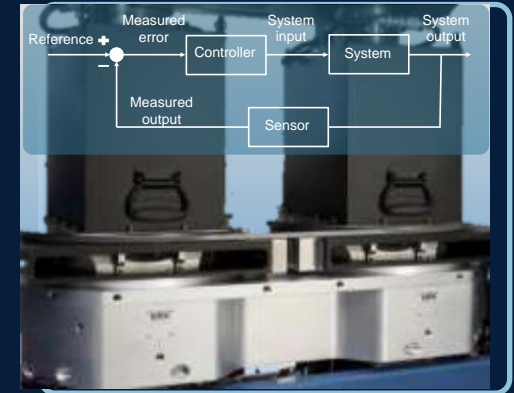


Novel UV-assisted Ozone clean

Most Efficient clean with low defects

Radical UV cleaning solution

Dynamic Control



Closed loop monitoring and power adjustment for consistent curing

Low variability wafer to wafer

Only provider of real time control

Nanocure 3 UV Curing

Expanding Applied Leadership in Low κ Dielectrics



Advanced UV curing technology unlocks full potential of porous low-k films

Delivers lower k value and maximizes mechanical strength

Uniform and robust process offers lower variability in device performance



Turning innovations
into industries.™