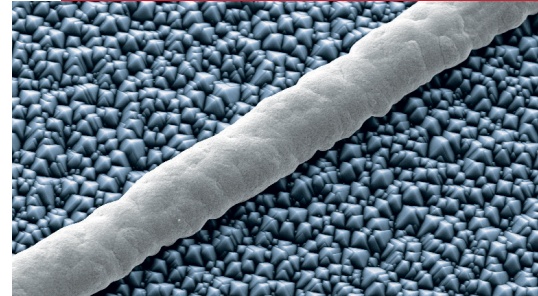
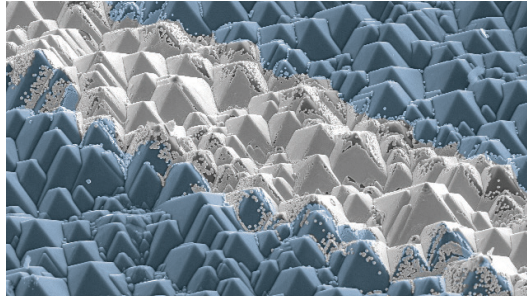
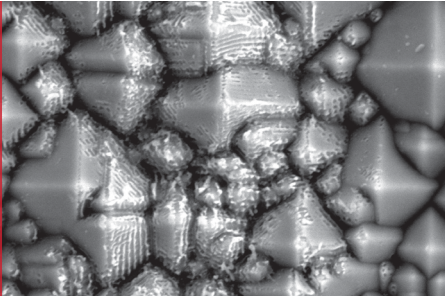




MacDermid Enthone



PHOTOVOLTAICS PRODUCT SELECTOR CHART

MacDermid Enthone and our experienced integration partners deliver a complete metallization system including specialty chemistry, laser patterning tools, and high speed automated plating and annealing equipment. Join the leaders in PV efficiency by adopting copper technology – the whole system is engineered and ready for you.

PATTERN: Laser or resist

SEED LAYER PLATING: Sputtered nickel or copper

NICKEL BARRIER LAYER AND COPPER CONDUCTOR:

Copper in line, automatic

SURFACE FINISH: Immersion silver, tin, OSP



MacDermid Alpha
ELECTRONICS SOLUTIONS



macdermidalpha.com

CIRCUITRY SOLUTIONS

	p-Type PoSi (Al BSF, PERC, PERT)	SHJ	n-Type Bi-facial	IBC
Metallization - LIP and EP				
LIP Ni	Helios® 610			
EP Ni		Helios® 610	Helios® 610	
LIP Cu	Helios® 620			
EP Cu		Helios® 620, HELIOFAB® 320C, HELIOFAB® 330R	Helios® 620, HELIOFAB® 320C, HELIOFAB® 330R	
LIP Ag	HELIOFAB® 340			
EP Ag		HELIOFAB® 340	HELIOFAB® 340	HELIOFAB® 340
I-Ag (with pre-dip)	Helios® 452		Helios® 452	Helios® 452
EP Sn		Helios® 410, HELIOFAB® 380	Helios® 410, HELIOFAB® 380	Helios® 410, HELIOFAB® 380
OSP	ENTEK® PLUS HT	ENTEK® PLUS HT	ENTEK® PLUS HT	ENTEK® PLUS HT
Cell Surface Clean				
Si deox/Clean	Helios® 914			
Cu Pre-Clean w/ Resist	Helios® 924	Helios® 924	Helios® 924	Helios® 924
Ni/NiV Pre-Clean		Helios® 918	Helios® 918	
Al Sputter		SolarClean 32A		
TCO		SolarClean TCO		
Sputter Metal Etch				
TiW/Cu on ITO		Helios® 915		
Cu on ITO		Helios® 915, Helios® 904, ENTEK® ME 1020		
Al/TiW/Cu				COBRA ETCH® II
CdTe/CdS				
Cr				
CdSe/CdTe				
Resist Strip				
Dry Film		Helios® DFS 011	Helios® DFS 011	Helios® DFS 011
Belt Strip				
Belt Strip - Cu		HELIOFAB® 848C	HELIOFAB® 848C	HELIOFAB® 848C
Belt Strip - Ag		HELIOFAB® Ag 06	HELIOFAB® Ag 06	HELIOFAB® Ag 06
Jig Strip				
Jig Strip - SN		Helios® JSS 021	Helios® JSS 021	Helios® JSS 021
Jig Strip - Cu		Helios® JSC 022	Helios® JSC 022	Helios® JSC 022
Jig Strip - Cu (RC)		HELIOFAB® 848C	HELIOFAB® 848C	HELIOFAB® 848C

