Coating Processes Boost Performance of Solar Cells

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NASA Technology
◆ Solar cell technology powers most of the functions performed by NASA’s spacecraft, and improvements to the technology apply directly to its use on Earth
◆ NASA is constantly looking to improve solar cells by making them lighter, more efficient, and less expensive to manufacture

Partnership
◆ Under a Space Act Agreement with NASA, SPECMAT developed a fabrication method using room-temperature wet chemical growth (RTWCG)
◆ SPECMAT has patented and licensed RTWCG within the industry, and it can now be used for solar cell production, microelectronics, and photonic devices

Benefits
◆ RTWCG produces an antireflective layer of silicone oxide without relying on toxins or heat
◆ The coating has lower reflectance than standard coatings, and it cleans the cell’s surface contacts
◆ The resulting cells are high performance and have the lowest cost per Watt in the industry