NASA teams up with Centauri for the development of selenium interlayer solar cells

SAN FRANCISCO, CALIFORNIA, UNITED STATES, June 17, 2024 /EINPresswire.com/ -- Centauri, a USA based solar research and development firm, has recently announced that they have been granted a license by NASA for the development of next generation solar cells. These advanced solar cells will have applications both on Earth and in outer space, marking a significant milestone for the company and the solar industry as a whole.

As a subsidiary of Energy America, a leading USA based solar module manufacturer and EPC contractor, Centauri has a strong track record in designing and building Next-GEN solar cells for power generation applications mainly for American market and other parts of the globe. With this new license from NASA, the company is poised to take their expertise to new heights and revolutionize the solar industry.

The new technology that could significantly improve the efficiency of multijunction solar cells. The team has successfully incorporated a selenium interlayer into the design of these solar cells, resulting in a 20% increase in their overall efficiency. Selenium is a unique semiconductor in that its transparent to light at photon energies below the band gap (infrared), enabling light to pass from the multi-junction top cell to the silicon-based bottom cell. The innovation allows a multijunction solar cell to be developed without the constraint of lattice matching, and with a low-cost, robust silicon wafer as the supporting
bottom substrate and bottom cell. This approach enables a cell that is simultaneously lower in cost, more rugged, and more efficient than
existing space-based photovoltaic cells. This high-efficiency solar technology takes advantage of inexpensive silicon wafers and provides a
more robust design for next-generation solar cells in space. For terrestrial applications, it can provide unprecedented efficiencies for auxiliary power
units in vehicles, solar roof tiles, power plants, and smart grid systems.

The license from NASA will allow Centauri to develop and commercialize advanced solar cells that are specifically designed for terrestrial and extra-terrestrial applications. This includes powering space missions and satellites, as well as providing renewable energy solutions for Earth-based power plants. The development of these next generation solar cells will not only benefit the company, but also contribute to the advancement of clean energy technology.

"We are thrilled to have received this license from NASA, which is a testament to our expertise

and dedication in the solar industry," said Jack Stone (Acting), CEO of Centauri. "This partnership will allow us to push the boundaries of solar technology and bring sustainable energy solutions to both Earth and outer space. We are excited to see the impact that these next generation solar cells will have on the industry and the world."

With this new license, Centauri is set to make a significant impact in the solar industry and beyond. The company is committed to driving innovation and sustainability, and this partnership with NASA is a major step towards achieving their goals. Stay tuned for more updates on the development and commercialization of these advanced solar cells from Centauri

ABOUT CENTAURI

Centauri, a leading company in the field of advanced solar cell technology, is proud to announce its focus on designing and developing cutting-edge solar cells for both space exploration and terrestrial applications. With a team of highly skilled engineers and scientists, Centauri is dedicated to pushing the boundaries of solar cell technology and revolutionizing the way we harness solar energy.

As space exploration continues to expand and evolve, the need for reliable and efficient power sources becomes increasingly crucial. Centauri recognizes this demand and has made it their mission to develop solar cells that can withstand the harsh conditions of space and provide a sustainable source of energy for spacecraft and satellites. Their innovative designs and materials have already been successfully tested in simulated space environments, proving their potential for use in future space missions.

In addition to their focus on space exploration, Centauri is also committed to developing solar cells for terrestrial applications. With the growing global demand for renewable energy sources, Centauri's advanced solar cells have the potential to make a significant impact in the renewable energy market. Their technology has already shown promising results in various field tests and has the potential to provide clean and sustainable energy to communities around the world.

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