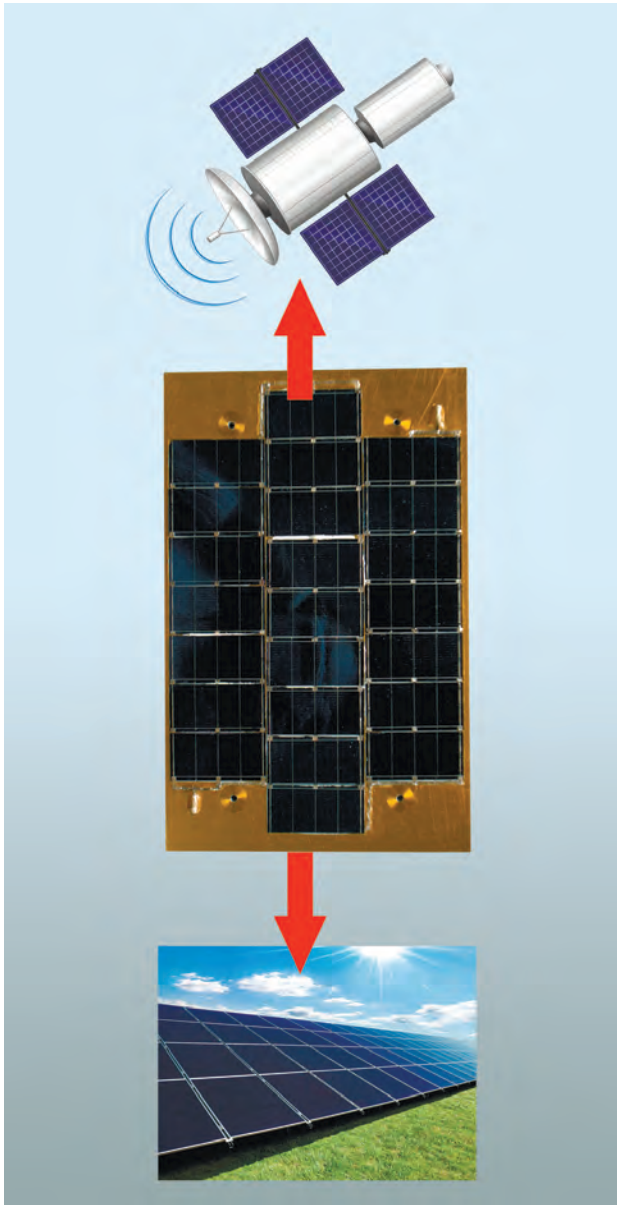
OPTICALLY-TRANSPARENT PROTECTIVE COATINGS



Photoelectric converters for solar panels

Areas of Application

For photovoltaic and optoelectronic devices

Specification

The coating:	
optical transparency, %	≥92—95
adhesion to inorganic and organic surfaces, MPa	≥45
operating temperature range, °C:	–190…+200
ultimate breaking shear stress, MPa	27.5
thermal-cycling stability (from –100 to +80 °C), cycles	1000
The photoelectric transducer with the coating:	
short-circuit current, A	1.09
open-circuit voltage, V	12.0
efficiency, %	16.4

Advantages

In comparison with domestic and foreign analogs, the proposed optically-transparent coatings have a higher adhesion to surfaces with various surface energy, a wider operating temperature range, a higher resistance to ultraviolet and radioactive radiation, with the optical properties kept, and a higher mechanical strength. The application of such coatings enables rising the efficiency of solar energy photoelectric converter, reducing its prime cost, and extending its service life more than 2 times

Stage of Development. Suggestions for Commercialization

IRL3, TRL3
Manufactured and supplied, upon request

IPR Protection

IPR3

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