

7. Conclusions

In Russia, main R&D activity on solar HCPV with III-V-based solar cells is centered in the Ioffe Physical Technical Institute (St.-Petersburg). Basic components of the HCPV facilities are under development: 3-junction cells, panels of the Fresnel lenses, concentrator modules, sun tracking systems, and concentrator PV installations. Current stage of work assumes commercialization of the HCPV product in the near future. The Supervisory Council of the Russian Corporation of Nanotechnologies (RUSNANO) approved the project aimed at production of nanoheterostructure solar cells with the efficiency reaching 37-45%. Solar modules and new generation power plants, equipped with Fresnel lenses and sun tracking system, will also be produced under the auspices of the project. It will commercialize the outcomes of research conducted in the Ioffe Institute in the field of fundamental scientific and technical principles and technological basis for constructing the main blocks of concentrator solar photovoltaic plants. It is expected that in 2015 the projected company's revenue will exceed 130 million Euros [12].

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