

Appendix-A

LIST OF PROJECTS

1. Development and management of production of innovation of vapor-plasma equipment for ecologically clean utilization of medical and other hazardous wastes on organic base with simultaneous producing of combustion gas, thermal and electrical energy.
2. Management of production of new generation of equipment for high efficient supersonic plasma and electric arc air-gas spraying of water-resistant, corrosion-resistant, heat-protective and special coating for application in power engineering, aerospace engineering, transport machine building, production and transportation of oil and gas.
3. Management of production of new generation of equipment for plasma-arc and induction deposition of coatings and surfacing, creation of manufacturing areas for strengthening, improvement of service life and repair of critical components of rolling stock of railway and sea transport.
4. Manufacture of equipment and implementation of technology of arc consumable nozzle welding of rail steel. Vertical arc welding with forced formation by a special electrode with insulating coating is used for joining steel parts of thickness from 16 up to 250mm, including butt welding of different-purpose rails (railway, tram, crane) in construction and repair of tracks.
5. Establishment of engineering centers for evaluation of technical state and application of technologies of restoration of large-size equipment of mining complexes, mining equipment, mental-working machine tools using welding and surfacing.
6. Implementing of plasma-arc technology and equipment for production of sparsely-alloyed high-nitrogen stainless steel with increased anti-corrosion and strength characteristics.
7. Development of technology and management of production of equipment for diffusion welding and hard-to-weld metallic materials (intermetallics, composites, dissimilar metals, etc) with producing of full-strength joints without chemical heterogeneities in the joint zone.
8. Technical and scientific supervision of the development and application of the U.S and Canada industrial energy-efficient technology and equipment micro-arc processing in rotating magnetic fields for the treatment of household and industrial wastewater.

9. Implementation in the medical practice and organization of joint production in the U.S and Canada of innovative equipment and welding technology of living tissues.