PARTNER SEARCH FORM

DATE: 14.11.2010
PROJECT INFORMATION
TITLE: Hydrogen Production from H2S Rich Black Sea Water **ACRONYM:**
SUMMARY:
KEYWORDS*: energy, hydrogen production, electrical technology, ecological safety, high efficiency, renewable sources, Black Sea, pulsed power, plasma
CALL: BS-ERA.NET 2010
NAME(S) of the PARTNER(S) INVOLVED:
SCIENTIFIC AND TECHNOLOGICAL EXPERTISE OFFERED*:
PARTNER SOUGHT
SCIENTIFIC AND TECHNOLOGICAL EXPERTISE REQUESTED: The research team at the Mykolav Department of Electrical Technologies and Power Supply of the Mykolayiv State Agrarian University consists of of a group of researchers and engineers engaged in R&D and implementation of electrical technologies based on pulsed power and plasma treatment of gaseous, liquid and solid media with the special emphasis paid to the high efficiency of the material processing and environmental safety under plasma chemical reactions. Graduated from the Mykolayiv Shipbuilding Institute the members of the team are aware with the complicated problems of the marine and submarine technological equipment design and creation. We have experience in design and implementation of the electrical technological equipment based on pulsed power plasma applications that have been successfully introduced in industry of Ukraine, Russia, the United States. Several installations have been designed and are under operation in the depth up to three kilometres that exceeds the maximum value of the Black Sea depth.
EXPECTE D CONTRIBUTION TO THE PROJECT: 1) Grounding of the project idea from the position of technological and ecological safety, high efficiency, based on pulsed power and non-thermal plasma treatment application; **2) Simulation of the different stages of the electrical technology for Hydrogen Production from H2S Rich Water including the main problems:** **- extraction H_2S as gas from the water at the place of its high concentration;** **- conditions of the H2S conversion into H2 and S under pulsed plasma treatment;** **-reliable operation pulsed power technological equipment for non-thermal plasma** **3) Design of the electrical technological equipment for industrial underwater hydrogen production from H2S** **4) Manufacture of the pilot installation for the technology eligibility confirmation**
ORGANISATION TYPE*: ■ Higher Education ☐ Research Institute

☐ R&D Company	☐ SME	☐ Other
HOW MANY PARTNERS ARE REQUIRED?		
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*** mandatory fields**