SPACE PROPULSION SYMPOSIUM (C4)
Joint Session on Nuclear Propulsion and Power (7-C3.5)

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STEP-BY-STEP REALIZATION OF THE INTERNATIONAL NUCLEAR POWER AND PROPULSION SYSTEM (INPPS) MISSION

Abstract

The European Commission (EC) funded project DEMOCRITOS (2015-2017, see under democritos.esf.org)

will be primary focused to test benches of ground, core and space demonstrators as well as the design and assembly of the mega-watt class International Nuclear Power and Propulsion System (INPPS). Insofar - by means of EC DEMOCRITOS project - it is already started the implementations of INPPS in the 2020-2030+ timeframe. DEMOCRITOS consortium members are from Europe, Russia and Brazil as a guest observer. In addition programmatic, organizational and funding aspects for international cooperation related to INPPS realization are included in DEMOCRITOS project. INPPS is comparable with Apollo and ISS. Therefore workshops invitations to international partners for participation on INPPS flagship for worldwide economic and technology growth as well as for peaceful space exploration of mankind are elucidated. Moreover DEMOCRITOS project is based on EC funded MEGAHIT (2013-2014) and DiPoP (2011-2013) projects related to nuclear electric propulsion. Because of these project results - accepted by EC -, the MEGAHIT high power roadmap (www.megahit-eu.org) and the low power nuclear DiPoP (www.DiPoP.eu) – including nuclear electric propulsion missions to Moon, Mars, Europa or Apophis - will be sketched too.