

IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (A1)
Interactive Presentations - IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (IP)

Author: Mr. Andrii Solomakha
Kyiv Politechnic Institute (NTUU "KPI"), Ukraine, a.solomakha@kpi.ua

Prof. Vladimir Rifert
TERMODISTILLATION, Ukraine, vgrifert@ukr.net

Mr. Petr Barabash
Kyiv Politechnic Institute (NTUU "KPI"), Ukraine, barabash_tef@ukr.net

Ms. Maryna Yaroshevych
Kyiv Politechnic Institute (NTUU "KPI"), Ukraine, a.solomakha@kpi.ua

Mr. Valerii Petrenko
Kyiv Politechnic Institute (NTUU "KPI"), Ukraine, petrko@ukr.net

CENTRIFUGAL FLASH DISTILLER FOR LIFE SUPPORT SYSTEM

Abstract

The paper presents the results of an experimental study of a single-stage centrifugal flash distiller (CFD). In comparison with the known systems, it has a significantly simpler construction. This will increase the system reliability, which is critical for deep space missions. CFD can be used to recover water from all wastewater with a performance about 1.5 litres per hour. The performance can be adjusted by changing the power of the supplied electrical energy. The test results show the possibility of water recovery up to 97%