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15 May 2014 — 16 May 2014   [Open University](#)

The European Lunar Symposium (ELS) is Europe's premier lunar conference, taking place at the Natural History Museum on 15-16 May 2014, chaired by Dr Mahesh Anand of the OU's Faculty of Science.

Ahead of the ELS, please see further details below on three key papers being presented by The Open University at this event on the subject of water in and on the moon:

1. The origin of water in the primitive Moon as revealed by the lunar highlands samples: Jessica Barnes, a PhD student, will report on her latest research into the source of water in the Moon and describe how the study of rocks representing the ancient lunar crust, collected during Apollo missions, revealed that the water in these ancient Moon rocks might share a common origin with that of water on Earth.

Link to research paper: <http://www.sciencedirect.com/science/article/pii/S0012821X14000247>

2. The abundance, distribution, and isotopic composition of Hydrogen in the Moon as revealed by basaltic lunar samples: Implications for the volatile inventory of the Moon: Romain Tartèse, a post-doctoral researcher in the OU's Faculty of Science, will also report on recent research findings of water in lunar samples representing the younger basaltic volcanic rocks, comprising the darker regions of the Moon, which also consistent with a common origin for water in the Earth-Moon system .

Link to research paper: <http://www.sciencedirect.com/science/article/pii/S0016703713004584>

3. Dr Simeon Barber will present a conceptual Lunar Volatile Resources Analysis Package (L-VRAP) designed to analyse water ice and other materials that may have become concentrated in cold areas of the Moon over billions of years.

L-VRAP is a miniature chemical laboratory capable of identifying and quantifying volatiles - elements and compounds with low boiling points such as nitrogen, water, carbon dioxide, ammonia, hydrogen and methane - in the Moon's soil and atmosphere.

The device could be fitted to a Lunar lander and would address key science questions about the distribution and evolution of volatiles in the Solar System and their role in the development of life. Additionally the results would help in the planning of future lunar exploration and could pave the way for an extended human presence away from the Earth.

Link to further information:

<http://www.sciencedirect.com/science/article/pii/S0032063312002516>

<https://els2014.arc.nasa.gov/welcome>

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