



Home	News Flash	Bhopal	Madhya Pradesh	Nation	Business	World
Editorial	Sports	Weather	Astrology	Open Forum	Matrimonial	Entertainment
Pictures	Your Voice					

Tuesday, October 06, 2009

Site Menu

[Archives](#)

[E-mail to Editor](#)

[Book Classified Ads](#)

[Book Display Ads](#)

[View Classified Ads](#)

[View Display Ads](#)

Opinion Poll...

Should international reputed athletes be high-headed?

No

Yes

[Vote](#)

[Results](#)

Search in News :

[Search](#)

[Hydrogen Fuel Cell Plates](#)

Fuel Cell Plates Cut to Your Specs Fast! No minimum quantities. Call.

[Moon Phase Calendars](#)

Find Great Bargains on Moon Phase Calendars & Watches. Save Big Now!

Ads by Google

Water on Moon

Category » **Editorial** Posted On Thursday, October 01, 2009

In a technology governed life, every body expects that technology may one day take their life style towards prosperity but it is an irony that after so much technological advances, most of the people all over the world are still far away from its advantages and for most of them it does not cater to their daily requirements. India's Chandrayaan-I space mission though came to an abrupt end (before schedule) but is said to be successful from country's technological feat and now with one more discovery to its credit i.e., finding water on moon, which space missions of countries like USA , USSR and others could not do, though, most of the instruments of Chandrayaan-I were imported ones. In the past, researchers have found signs of ice in the moon's polar region, located in deep craters that have never seen sunlight, but the latest findings indicate water on its surface. Credit should be given to Indian scientists to make the probe land in particular areas where water was available or to the advancement in technology of instruments which could capture it and analyze.

Sending space missions to moon and then thinking of harvesting its resources or to utilize the technology in further exploration of space does not give much sense to country like India which needs much more to be concentrated on improving the life style of its poor citizens, due to which reason only, America had abandoned its moon programme way back in 1972. NASA on Thursday revealed that India's maiden lunar mission Chandrayaan-I had traced water molecules on the moon's surface. It also thanked" ISRO for making the discovery possible. Appreciation by US with regard to these discoveries is nothing more than to encourage other countries to indulge in unwanted superiority race which will ultimately help US only to sell her scientific ideas and technology as now we will see more money being invested in moon missions and there might be manned moon missions.

Moon till now was thought to be a very dry surface with lot of rocks. Water ice on the moon has been something of a holy grail for lunar scientists for a very long time. Instruments aboard three separate spacecrafts, one of them the Moon Mineralogy Mapper (M3), a NASA instrument onboard Chandrayaan-I revealed water molecules in amounts that are greater than predicted, but still relatively small. From its perch in lunar orbit, M3's state-of-the-art spectrometer measured light reflecting off the moon's surface at infrared wavelengths, splitting the spectral colours of the lunar surface into small enough bits to reveal a new level of detail in surface composition. When the M3 science team analysed data from the instrument, they found the wavelengths of light being absorbed were consistent with the absorption patterns for water molecules and hydroxyl. Data from the spacecraft also suggests water is still being formed on the moon.

Scientists added that by 'water on the moon,' they did not mean lakes, oceans or even puddles. Water on the moon means molecules of water and hydroxyl that interact with molecules of rock and dust specifically in the top millimeters of the moon's surface. While the abundances are not precisely known, as much as 1,000 water molecule parts-per-million could be in the lunar soil. To put that into perspective, if you harvested one ton of the top layer of the moon's surface, you could get as much as 32 ounces of water. NASA said the M3 team found water molecules and hydroxyl at diverse areas of the sunlit region of the moon's surface, but the water signature appeared stronger at the moon's higher latitudes. Data from other instruments also contributed to confirmation of the finding. We know water is the basic component required for the survival of life and can be used as a source of oxygen and hydrogen which can act as a source of energy.

Water-ice formation on Moon hypothesis : A schematic showing the stream of charged hydrogen

Click here to download Rank & Bolt Forms

Ads by Google

[How to make electricity](#)

A shocking new homeowner's kit the electric co's hope u will never own
www.Power4Home.com

[Gas Detection For Life](#)

Portable and fixed gas detectors
Combustibles,O2,H2S,(
www.rkiinstruments.com/

[Make Your Own Hydrogen](#)

We've Found The Best Hydrogen Guide Find Out What We Know And Save Now!
LearnHHO.com

[Short Films by Honda](#)

What is

transportation's future? Honda asks today's great thinkers.

www.honda.com

[Moon Phase Calendars](#)

Find Great Bargains on Moon Phase Calendars & Watches. Save Big Now!

www.NexTag.com/Moon-Phas



ions carried from the sun by the solar wind. One possible scenario to explain hydration of the lunar surface is that during the daytime, when the moon is exposed to the solar wind, hydrogen ions liberate oxygen from lunar minerals to form hydroxyl and water, which are then weakly held to the surface. At high temperatures (red-yellow), more molecules are released than adsorbed. When the temperature decreases (green-blue), hydroxyl and water accumulate. While the formation of an earth-like, liquid reservoir on the moon is impossible because of the weak atmosphere on Earth's only natural satellite, there are chances of fresh and bigger chunks of water-ice forming over several years on the lunar surface.

Scientific Expectations:

- * Discovery of water will help to find any trace of life on moon.
- * The discovery will pave the way for growing vegetation in moon surface in five or 10 years from now," renowned scientist Y S Raja
- * Water on Moon surface in any form is necessary to set up a base-both to exploit the moon's resources such as helium-3, a clean nuclear fuel, and setting up a transit point for possible exploration of planets beyond, such as Mars.
- * Even if there is no water in its complete H2O format, still those going to moon can combine the molecule and get water
- * Water can be extract at moon surface and bottled to Earth in case of water crisis
- * Scientists can break H2O molecules and get oxygen for breathing and hydrogen for energy
- * The finding is a boost for India's ambitions for deep space exploration. The Indian Space Research Organisation (Isro) will follow up by landing a rover on the moon by 2013 and send probes to asteroids and Mars in the future amid a renewed burst of global interest in exploring outer space.
- * India is targeting a human spaceflight by 2016 and eventually landing a man on the moon in the 2020s.
- * 'If the water molecules are as mobile as we think they are - even a fraction of them - they provide a mechanism for getting water to those permanently shadowed craters.
- * Scientists are expected to use this information to answer questions about moon's origin and development and the evolution of terrestrial planets in the early solar system.

Dr SS Verma

Dept of Physics; SLIET, Longowal

[Print](#) | [Mail it](#)

[About](#) | [Advertise](#) | [Contact](#)

