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A way to use water to convert methane into methanol

- A team of researchers from the Paul Scherrer Institute and ETH Zurich, both in Switzerland, has developed a one-step process that uses water to convert methane to methanol.

Why to convert?

- Methane has been identified as a greenhouse gas, one that is perhaps more of a problem even than carbon dioxide because it traps more heat (some studies have suggested 25 times as much)—fortunately, not nearly as much of it is emitted by humans into the atmosphere. It makes its way into the atmosphere due to animal flatulence and some industrial processes. It is also a byproduct at gas wells, where it is generally burned.
- Methanol, on the other hand, has been considered a good alternative to gasoline for use in automobile engines.
- It is currently made using a variety of techniques and basic materials including coal, natural gas and even municipal waste.
- One approach is to use high-pressure and high-temperature oxidation of the gas, but most consider such methods too technically challenging to use in places such as drilling sites.
- In this new effort, the researchers describe a simpler way to make methanol **using water (as an oxidant instead of oxygen) and methane.**

Process:

- In their process, water is used to oxidize methane over a bed of copper containing zeolite—the unique structure of the mineral lets the water behave as an oxidant.
- The team claims the process is 97 percent efficient, emitting only methanol and hydrogen. The method, the researchers note, is simple and easy enough that it could be used at drilling sites and the resulting methanol could be used as a liquid fuel or as an ingredient in making resins or plastics.
- The hydrogen could be used in any number of ways, including in fuel cells.

MISCELLANEOUS

Japan seeks Unesco status for sacred men-only island

- A small Japanese island which refuses access to women is to be nominated by the government as a future Unesco World Heritage site.
- Okinoshima, a sacred island off the coast of southern Kyushu, is one of five sites from the area that will reportedly be included in the government's bid for 2017 World Heritage status.
- The island, which covers less than 0.3 square miles, has long been famed in Japan as home to a sacred Munakata Taisha shrine, where fishermen would visit to pray for safety as far back as the fourth century.
- Perhaps most controversially, women have never been allowed to set foot on the island, which is owned by Munakata Taisha shrine and is widely respected by locals as a sacred place where Shinto gods reside.

Scientists use satellites to count endangered birds from space

- Albatrosses, one of the most iconic but also one of the most threatened groups of birds on the planet, are difficult to study in part because they breed on some of the world's remotest and most inaccessible islands.
- Scientists have now shown that the highest resolution satellite imagery is capable of "seeing" these birds from space, allowing researchers to count their numbers on remote islands directly from satellite images without ever having to go there.
- This is the first time that satellites have been used to count individual birds from space.

India to hold festival in Egypt to mark Rabindranath Tagore's birth anniversary

(Indian Express)

- India will organise a cultural festival in Egypt to mark the 156th birth anniversary of the famous Indian poet, Rabindranath Tagore.
- Tagore Festival which is being organised by the Maulana Azad Centre for Indian Culture (MACIC), the cultural wing of the Indian Embassy in Cairo.

Rabindranath Tagore:

- Rabindranath Tagore received the Nobel Prize for Literature in 1913. He was the first non-European to win this prestigious award, in recognition for his collection of poems, 'Gitanjali'.
- Tagore is not unknown to Egypt. He visited Egypt as a young adolescent in 1878 and later as a famous poet-philosopher in 1926, when he met King Fouad and interacted with scholars in Alexandria and Cairo. His friendship with Egyptian poet Ahmed Shawki is well known and he wrote a moving eulogy on his friend's death in 1932.
- He was impressed by the strong literary trends and found great resonance in the intellectual movement in Egypt. He also wrote about the beautiful relationship between the noble Nile River and the flourishing civilization of Egyptians.
- The Tagore Festival is organised in cooperation with the Egyptian Ministry of Culture, Cairo Opera House, Cultural Production Sector, Dancers' Guild and the Indian Community Association in Egypt.