Best of Last Week – New type of guitar string, looking for vanadium on Mars and US teens behind those of the 70s

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A rendering of the Mars 20/20 Rover, courtesy of NASA.

(ScienceX)—It was an interesting week for Earth science as a team of geochemists with the University of Chicago conducted an analysis of titanium in ancient rocks that could create upheaval in the history of

early Earth—they found evidence of tectonic activity as far back as 3.5 billion years ago. Also, a team with members from Italy and the U.S. reported that they located a potential magma source in an Italian supervolcano, which suggests it might be close to erupting. And a professor at MIT claimed that by 2100, the oceans may hold enough carbon to launch a sixth mass extermination of species—he used math to identify "thresholds of catastrophe" in the carbon cycle.

In space news, a team of researchers in Germany reported that Hubble had discovered a unique type of object in the solar system—two asteroids orbiting one another exhibiting comet-like attributes. And an international team of researchers concluded that researchers looking for signs of life on Mars should look for the element vanadium.

In other news, Dr. Jonathan Kemp at the University of St Andrews announced that he had invented a revolutionary type of guitar string —one that allows for balancing strings by sensitivity in ways never before achievable. Also, a team at the University of Toronto found that higher levels of fluoride in pregnant woman could be linked to lower offspring intelligence. And a team at the University of Sydney reported that they have turned optical data into readable soundwaves—a critical step for the development of photonic integrated circuits. A team at the University of Manchester announced that they had created the world's first 'molecular robot' capable of building molecules. The robots are a millionth of a millimeter in size, but can be programmed to build things such as molecules from atoms.

And finally, if you have children of a certain age, you might be interested in a study conducted by a pair of researchers, one at San Diego State University and the other Bryn Mawr College—they found that today's U.S. teens are about three years behind the '70s generation in starting to have sex, drink alcohol and work for pay.