

# **Best of Last Week—Earth enters Anthropocene, new way to cool electronics, targeting immune cells to treat A-fib**

July 17 2023, by Bob Yirka

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Half-Heusler materials may provide a boost in cooling power density of thermoelectric devices and provide a cooling solution for next generation of high-power electronics. Credit: Wenjie Li

It was a good week for human behavior research as pair of archaeologists, one with the Israel Antiquities Authority, the other from

Bar-Ilan University, found evidence of [Roman-era necromancy practices](#) in a cave in Israel. Also, a team called the Anthropocene Working Group found evidence that due to human activity over the past half-century, [the Earth has entered what has widely come to be called the Anthropocene](#)—moving out of the Holocene, which began after the last ice age. Also, adjunct professor of physics in the Faculty of Science Rajendra Gupta at the University of Ottawa found evidence that [the universe could be twice as old as prior research has suggested](#).

In technology news, a team at Pennsylvania State University developed [a new high-power thermoelectric device](#) that could provide cooling for next-gen electronics. The breakthrough has been seen as necessary for tiny, more powerful heat-generating devices of the future. And a pair of economists at MIT conducted an experiment designed to determine if the [use of ChatGPT by college-educated professionals can make them more productive](#) by helping them to write papers more quickly. Also, a team of engineers with members from the Dutch Organization for Applied Scientific Research, Asahi Kasei Corporation, Eindhoven University of Technology and imec introduced [a transparent optical imager with near-infrared sensitivity and touchless interface](#) that allows for gesture or penlight recognition. And a team with members from across China developed [a strategy to reduce defects in inverted perovskite solar cells](#) resulting in improved performance.

In other news, a team of medical researchers at Karolinska Institutet and Danderyd Hospital, found that [protection against COVID infections is linked to mucosal IgA antibodies](#)—a finding that helps explain why current vaccines do not prevent infections. And a team of mental health specialists at the University of York found that [people with severe mental illnesses do not benefit emotionally from having pets](#)—a finding that contradicts earlier work by other groups. And finally, a team led by a group at Massachusetts General Hospital and Harvard Medical School found that [targeting immune cells may help treat atrial fibrillation](#)

because they play a major role in its development.

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