

Best of Last Week: Water as stable supercooled liquid, carbon dioxide to ethylene, COVID-19 seasonality

September 21 2020, by Bob Yirka

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It was a good week for physics as a team of researchers from India and Japan found that [the magnetic field in high-intensity lasers originates at the macroscopic scale](#) as defined by electron beam boundaries, rather

than from the small, nanometer scale in bulk plasma, as had been thought for many years. Also, a team at the U.S. Department of Energy's Pacific Northwest National Laboratory showed for the first time that [supercooled water is a stable liquid](#)—and that it is actually two liquids in one.

In technology news, a team with members from the University of Zurich and SONY AI Zurich demonstrated [a deep-learning model that achieved super-human performance playing Gran Turismo Sport](#). Also, artificial intelligence expert Prakash Shenoy at the University of Kansas School of Business proposed [a new theory for decision-making](#) when the outcomes of a choice are uncertain and the uncertainty can be described by probability theory. And a combined team from the University of Massachusetts Amherst and Baylor College of Medicine, proposed [a way to make neural networks less forgetful](#) by using the brain's memory abilities as a model. Also, a team with members from Vienna University of Technology, the University of Pisa and AMO GmbH, [demonstrated an operational amplifier that uses a 2-D semiconductor](#).

In other news, a combined team from Caltech and the UCLA Samueli School of Engineering discovered [an effective pathway to convert carbon dioxide into ethylene](#)—possibly providing a replacement for fossil fuels. Also, a team at Imperial College London found that [a rapid 90-minute COVID-19 test they developed](#) is also highly accurate. And a small team with members from Norway, Denmark, Sweden and the U.S. found evidence that showed [sea ice triggered the Little Ice Age](#) that chilled Europe from the 1300s through the mid-1800s.

And finally, if you have been hoping that scientists will develop a vaccine for protection against the SARS-CoV-2 virus to end the pandemic once and for all, you might want to check out the results of a team working at the American University of Beirut—they found evidence suggesting that [COVID-19 will become a seasonal virus](#) after

herd immunity is attained.

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