

BEST FROM SCIENCE JOURNALS: NANOFIBERS STRONGER THAN STEEL

Relevant for: Science & Technology | Topic: Science and Technology- developments and their applications and effects in everyday life

Parts of the molecules attracted to or repulsed from water, shown in purple and blue respectively, orient and guide the molecules to form a nanostructure. Credits: Peter Allen

(Subscribe to Science For All, our weekly newsletter, where we aim to take the jargon out of science and put the fun in. [Click here.](#))

[Published in Science](#)

It is well known that snakes use their venom to hunt or to kill prey. However, researchers at the U.K's Bangor University's School of Natural Sciences have found that, in one group of spitting cobras, the venom evolves as a means of protection, from their ability to spit venom to escape from their predators. The study conducted on three different lineages of cobras showed that these snakes have the ability to spit venom to a distance of up to 2.5 metres during adverse situations.

[Published in Nature Nanotechnology](#)

Researchers at the Massachusetts Institute of Technology have constructed small molecules which when added with water form nanofibers. These hard and rigid molecules become so tough that they can hold about 200 times their own weight.

[Published in eLIFE](#)

Researchers have decoded the microbial diversity in sourdough (a type of bread) and studied how microbes influence the aroma and fluffiness of the bread. "By studying interactions between microbes in the sourdough microbiome that lead to cooperation and competition, we can better understand the interactions that occur between microbes more generally — and in more complex ecosystems," says Elizabeth Landis, co-lead author of the study, in a release.

[Published in Nature Astronomy](#)

The obliquity of a planet is referred to as the angle between its equatorial plane and the orbital plane, i.e the tilt of a planet. During Saturn's formation, its obliquity was 26.7°. But recent observations have shown that it has increased to 27°. Scientists say this tilt may have been caused due to its satellites, which are moving away much faster than what researchers had estimated before. The scientists predict that in the next few billion years, the inclination of Saturn's axis could more than double.

[Published in Nature Photonics](#)

Scientists from Australia have come up with a better imaging technique that what exists now, which will now benefit researchers in a better understanding of molecular particles. "This technique allows scientists to examine cells in their natural state without previously being stained or labeled. As a result, their structure and function—and perhaps even their dynamics—can be better understood," says Professor Brian Abbey, of the La Trobe Institute for

Molecular Science, in a release.

You have reached your limit for free articles this month.

Already have an account ? [Sign in](#)

Start your 14 days free trial. [Sign Up](#)

Find mobile-friendly version of articles from the day's newspaper in one easy-to-read list.

Enjoy reading as many articles as you wish without any limitations.

A select list of articles that match your interests and tastes.

Move smoothly between articles as our pages load instantly.

A one-stop-shop for seeing the latest updates, and managing your preferences.

We brief you on the latest and most important developments, three times a day.

*Our Digital Subscription plans do not currently include the e-paper, crossword and print.

Dear reader,

We have been keeping you up-to-date with information on the developments in India and the world that have a bearing on our health and wellbeing, our lives and livelihoods, during these difficult times. To enable wide dissemination of news that is in public interest, we have increased the number of articles that can be read free, and extended free trial periods. However, we have a request for those who can afford to subscribe: please do. As we fight disinformation and misinformation, and keep apace with the happenings, we need to commit greater resources to news gathering operations. We promise to deliver quality journalism that stays away from vested interest and political propaganda.

Dear subscriber,

Thank you!

Your support for our journalism is invaluable. It's a support for truth and fairness in journalism. It has helped us keep apace with events and happenings.

The Hindu has always stood for journalism that is in the public interest. At this difficult time, it becomes even more important that we have access to information that has a bearing on our health and well-being, our lives, and livelihoods. As a subscriber, you are not only a beneficiary of our work but also its enabler.

We also reiterate here the promise that our team of reporters, copy editors, fact-checkers, designers, and photographers will deliver quality journalism that stays away from vested interest and political propaganda.

Suresh Nambath

Please enter a valid email address.

Subscribe to The Hindu now and get unlimited access.

Already have an account? [Sign In](#)

Start your 14 days free trial [Sign Up](#)

You can support quality journalism by turning off ad blocker or purchase a subscription for unlimited access to The Hindu.

[Sign up for a 30 day free trial.](#)

END

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com

CrackIAS.com