

### **Scientists Dissolve Crude Oil in Water to Study Its Composition**

[Researchers from MIPT report a new approach](#) to oil composition analysis. They used high temperature and pressure to dissolve oil in water and analyze its composition. The new method is compliant with green chemistry principles as it obviates the need for environmentally hazardous solvents. The paper was published in *Analytical and Bioanalytical Chemistry*.

### **Quorn Protein Builds Muscle Better Than Milk Protein**

[A study from the University of Exeter has found](#) that mycoprotein, the protein-rich food source that is unique to Quorn products, stimulates post-exercise muscle building to a greater extent than milk protein. The results showed that mycoprotein, the main ingredient in all Quorn products, is a more effective source of protein to promote muscle growth than milk protein.

### **Environmentally Friendly Control of Common Disease Infecting Fish**

[Aquatic organisms in marine systems and freshwaters](#) are threatened by fungal and fungal-like diseases globally. These pathogens are especially dreaded in aquaculture. There are few approved chemical means for combating these pathogens, and many have unwanted side-effects. Scientists at the Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) now propose alternative biological concepts to control fungal disease in a more environmentally friendly way.

### **Engineers Boost Output of Solar Desalination System by 50%**

[Rice University's solar-powered approach for purifying salt water](#) with sunlight and nanoparticles is even more efficient than its creators first believed. Researchers in Rice's Laboratory for Nanophotonics (LANP) this week showed they could boost the efficiency of their solar-powered desalination system by more than 50% simply by adding inexpensive plastic lenses to concentrate sunlight into "hot spots." The results are available online in *the Proceedings of the National Academy of Sciences*.

### **World's Smallest MRI Performed on Single Atoms**

[Researchers at Ewha Womans University have made a major scientific breakthrough](#) by performing the world's smallest magnetic resonance imaging (MRI). Scientists used their new technique to visualize the magnetic field of single atoms. The new findings, published today in the journal *Nature Physics*, show that this process is now also possible for an individual atom on a surface.

### **New Type of Glass Inspired By Nature Is More Resistant To Impacts**

[Using the iridescent mother-of-pearl often found lining seashells](#), researchers have engineered a new composite glass with a greatly boosted resistance to impacts. The years of research the scientists conducted into nacre revealed key details they wanted to mimic in their glass, as the pattern had to be highly precise. The scientists detailed their findings in the June 28 issue of the journal *Science*.

### **Novel Material Shows High Potential For Quantum Computing**

[A joint team of scientists at the University of California, Riverside, and the Massachusetts Institute of Technology](#) is getting closer to confirming the existence of an exotic quantum particle called Majorana fermion, crucial for fault-tolerant quantum computing—the kind of quantum computing that addresses errors during its operation. Their findings appear in *Physical Review Letters*.