

Swedish Research Multiplies the Life of Rechargeable Batteries

[Researchers at Stockholm University have developed a method](#) to multiply the lifespan of nickel-metal hydride batteries. This means that the batteries can handle a great many more charging cycles without losing capacity. The new method also means that the batteries can easily be restored once they have begun to wear out, unlike other rechargeable batteries that must be melted down for recycling.

Fish Bones Yield New Tool for Tracking Coal Ash Contamination

[A Duke University study shows that trace](#) elements in a fish's ear bones can be used to identify and track coal ash contamination in the waters where it lived. Strontium isotope ratios in the otoliths of fish collected from two lakes that received coal ash effluents matched strontium isotope ratios in contaminated pore water samples from the lakes' bottoms. These marks the first time strontium isotope ratios have been used as fingerprints to track coal ash's impacts in living organisms.

Saltier Waterways are Creating Dangerous 'Chemical Cocktails'

[A recent study led by University of Maryland researchers, found](#) that streams and rivers across the United States have become saltier and more alkaline over the past 50 years, thanks to road deicers, fertilizers and other salty compounds that humans indirectly release into waterways. The team named this effect "Freshwater Salinization Syndrome.", the need for better regulation and pollution management strategies.

Removing Toxic Mercury from Contaminated Water

[Water which has been contaminated with mercury and other toxic heavy metals is a major cause](#) of environmental damage and health problems worldwide. Researchers from Chalmers University of Technology, Sweden, present a totally new way to clean contaminated water, through an electrochemical process.

Volcanoes and Glaciers Combine as Powerful Methane Producers

[The Lancaster university-led research, which is featured in Scientific Reports,](#) is the first published field study to show methane release from glaciers on this scale. A study of Sólheimajökull glacier, which flows from the active, ice-covered volcano Katla, shows that up to 41 tonnes of methane is being released through meltwaters every day during the summer months. This is roughly equivalent to the methane produced by more than 136,000 belching cows.

Researchers Generate Plants with Enhanced Drought Resistance without Penalizing Growth

[A team led by the researcher at the Center for Research in Agricultural Genomics \(CRAG\) Ana Caño-Delgado has obtained](#) plants with increased drought resistance by modifying the signaling of the plant steroid hormones, known as brassinosteroids. The study, published in the journal Nature Communications, is the first to find to find a strategy to increase hydric stress resistance without affecting overall plant growth.

