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This Week

AIDS Protection for Vaginal Sex? 340 Flu virus shows spring-loaded mechanism 341 Twist of orange, lavender oil stop cancer 341 Forwarding information via controlled chaos 342 Midcontinent heat may explain great quakes 342 Mysterious radio bursts hint at heliopause 343 Chlorination products linked to cancer 343 Method probes chemistry of stroke, aging

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Cover: All proteins found in nature, including enzymes, occur in a "left-handed" molecular configuration. New techniques are now enabling chemists to make the mirror images of these molecules. Scientists led by Stephen Kent at Scripps Research Institute have synthesized the "right-handed" form of HIV-1 protease, an enzyme involved in the replication of the AIDS virus. (Computer graphics by Arthur Olson, Yng Chen, and Garrett Morris/Scripps)



Departments

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Letters

Biodegradable but not benign?

The cutting board article ("Wood wins, plastic trashed for cutting meat," SN: 2/6/93, p.84) points up a serious problem. Soaps and detergents that are biodegradable do not kill germs and bacteria. Water used in hand dishwashing or laundry is not hot enough to kill them. Have we traded environmental concern for increased sickness and death?

Clarence H. Peger Cleveland, Ohio

Breaking up's not hard to do

The fact that water at high temperatures and pressures is effective for breaking apart organic compounds was no surprise ("Water, Water Everywhere: Surreptitiously converting dead matter into oil and coal," SN: 2/20/93, p.121). We use supercritical aqueous solutions to grow quartz crystals and have found that almost all organic materials are destroyed

under our operating conditions (350°C, 800 atmospheres, basic solutions). Even Teflon is usually converted into a black, carbonaceous material.

Jonathan W. Foise Research Scientist Sawyer Research Products, Inc. Eastlake, Ohio

Deploring research means to end

Killing seals to determine how many seals have been killed ("Brain lesion helps explain seal loss," SN: 2/20/93, p.126)? Could not the line justifying the killing of 28 harbor seals just as easily have been written, "Dr. Frost notes that they are either too slow or lack the current technology and funding to retrieve the beached seal carcasses before the parts they wish to study decompose. Therefore, in order to more accurately determine the number of seal fatalities, it was deemed easier and more expeditious to kill 28 of the remaining survivors of this man-made environmental holocaust"?

Was the knowledge that we humans gained from these autopsies truly worth the cost? Whether from the seals' perspective or the scientists', the conclusion is the same: Both humans and oil are lethal to seals, with humans possessing the odd predilection of adding insult to already devastating injury.

Where do I write to obtain permission for a similar project I have in mind - studying the thought processes of overzealous research scientists and inattentive, mindless bureaucrats?

> Jill Shields Parma. Ohio

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Please limit letters to 250 words. All letters subject to editing.

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