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Cover: In a contest held in June, university groups converted cars such as the 1995 Chrysler Neon to run on both gas and electricity. Many people believe that these hybrid electric vehicles may hold one solution to the world's growing air pollution problem. (Photo: The Reynolds Communication Group; photo illustration by Mark Gilvey/Design Imaging)
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Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

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Letters

Prions still likely villain

"Another round in the prion debate" (SN: 6/17/95, p.383) suggests a viral cause for Creutzfeldt-Jacob disease because prion proteins that were isolated from diseased tissue were not "significantly infectious," while proteins bound to nucleic acids "remained highly infectious." These results are interesting, but they do not require a viral explanation.

Prion function is dependent on tertiary structure, which means that any change in the three-dimensional shape of the protein

will affect its performance. The prions in the study were isolated by a series of chemical manipulations that could easily damage the folding pattern of a naked protein. The presence of the nucleic acid in the protein-nucleic acid complex, however, may prevent the denaturing of its protein during the separation process.

Once inside a cell, enzymes could remove the nucleic acid, thereby releasing an intact, infectious prion.

Without the demonstrated presence of a virus, prions remain the best explanation of Creutzfeldt-Jacob disease.

Nicholas Gomez
Toronto, Ontario

Water's uncertain freezing point

"Viewing frost heave on a microscopic scale" (SN: 7/1/95, p.4) contains several references to water's "freezing point." Water, particularly water containing undefined quantities of dissolved material, as would be

the case in a frost heave situation, does not have a known, much less a normal, freezing point.

Pure water can freeze at any temperature between 0 and -41°C. In contrast, ice cannot exist (in a normal range of pressures) at temperatures in excess of 0°C and thus has a well-defined melting point.

This distinction is not trivial when one is trying to understand processes dependent upon the phase state of water.

Christopher A. Bilotto
Salt Lake City, Utah

CORRECTIONS

Masahiro Ishiura, now at the University of Nagoya in Japan, is part of the collaboration studying cyanobacteria ("Lighting Up Biological Clocks," SN: 8/12/95, p.108).

The labels on the images in "Quest for condensate turns up another find" (SN: 9/9/95, p.164) were accidentally switched.

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