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## Letters

### Cold fusion, continued

"Cold ConFusion" (SN: 6/22/91, p.392) will go a long way toward helping the open-minded see where we stand in this field. However, it is too bad that residual skepticism requires that so much time and so many words be spent defending the field rather than getting on with understanding this extraordinary phenomenon.

An increasing number of scientists have now accepted cold fusion as real and are investigating it in a normal scientific manner. Their work will result in useful insights, in spite of the skeptics. But because of the skeptics, the advantages gained by this discovery will not be as readily available to the United States as they will be to Japan and India, for example. We will then have another example of an important discovery being made in the United States and developed elsewhere.

*Edmund Storms  
Materials Scientist  
Los Alamos National Laboratory  
Los Alamos, N.M.*

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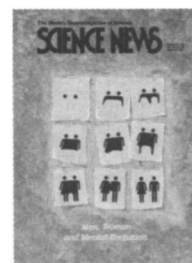
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Cover: In an increasing number of often-controversial studies, researchers are attempting to uncover mental rules of thumb that have evolved in the human species, such as patterns of jealousy and mate selection in men and women, widely shared ideals of facial beauty, and the built-in capacity for language. (Illustration: Randy Fletcher)



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**My research into related phenomena suggests that one of the primary ingredients necessary to obtain the desired results in cold fusion experiments is a direct current pulsed at a very high frequency. As Thomas N. Claytor points out, current is more important than voltage.**

I suspect that what is happening in studies such as those conducted by Liebert and Liaw is that the materials in the experiment tend to pulse the current by alternating between being very conductive and resistive. The pulsing current jolts the materials into a state of disequilibrium. As a result, orbiting electrons are stripped off atoms and release a large amount of energy.

If this is true, then the unpredictability of the results stems from the extreme difficulty of creating the right conditions for obtaining a stable, pulsed current at high frequencies by relying on the properties of the materials being used in the experiment.

The results should be much more predictable if a very high-frequency pulsed DC input current were used. It may be necessary to vary

the frequency somewhat from test to test because of variations in test materials used.

*Al Leedahl  
Mechanical Engineer  
Engineering Design Concepts  
Benson, Minn.*

### Fire in the greenhouse

John Travis' article on potential climatic impacts of the Kuwaiti oil fires ("A Legacy of War," SN: 7/13/91, p.24) apparently overlooked a key factor: carbon dioxide emissions. According to a report by the British Parliamentary Office of Science and Technology, assuming that 6 million barrels a day are burned in the first year and 3 million in the second, CO<sub>2</sub> emissions over Kuwait could reach 170 and 57 million tons over the same respective periods. These amounts, which correspond to about 3 percent and 1 percent, respectively, of global CO<sub>2</sub> emissions, will undermine — if not nullify — all efforts to curb greenhouse-induced climate change.

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