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Letters

Reader-friendly chemistry

With all the pressure to save space and avoid burdening the reader with unnecessary, complicated information, we have nearly arrived at the place where every chemical compound will be known by a few capital letters. I'm not necessarily against this policy, as long as it is used correctly and with a reasonable expectation that the reader will know exactly which chemical is represented by the letters.

But in "Chlorination: Residues cloud water safety" (SN: 6/3/89, p.342), you refer to "a chlorinated furanone known as MX." If I'm a big enough boy to know what a chlorinated furanone is, I deserve to be included in the illuminati who know what MX stands for. The same applies to that "peroxisome proliferator" encrypted as DCA. You only have to tell us once in each article, but I think we deserve that one shot at comprehension.

Pete Schermerhorn
Hinsdale, Mass.

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Cover: Researchers have developed simple computer models to investigate and elucidate the new concept of "self-organized criticality" as an explanation for physical phenomena ranging from noise in electronic devices to the pattern of energy release during earthquakes and turbulence during fluid flow. Some of these computer models suggest avalanches down sandpiles, while others mimic the behavior of forest fires. In this partial frame from a forest-fire simulation, yellow sites represent fires and green sites represent living trees. (Image: P. Bak and M. Creutz)



Departments

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In general, we spell out the formal name of a chemical compound on first reference and abbreviate it as space dictates thereafter, especially when we think that many—or even some—of our readers will recognize the chemical. We apologize for inadvertently leaving you and other inquiring minds in the dark, but in the case of MX, we felt that abbreviating its unwieldy moniker would make the story more accessible to the nonchemists in our readership.

The compound 3-chloro-4-(dichloromethyl)-5-hydroxy-2-(5H)-furanone, better known as MX, has "no known commercial purposes," according to EPA's H. Paul Ringhand. Dichloroacetic acid, or DCA, is a strong eye and skin irritant sometimes used in pharmaceuticals.

— J. Raloff

Evolution implications

In "Spider webs: Luring light may be a trap" (SN: 5/27/89, p.330), I. Wickelgren states that "UV reflectance in spider silk did not evolve for the purpose of capturing prey" (italics added). This is misleading regarding the Neodarwinian synthesis. It seems more appropriate to state that "evolution did not lead to the selection of UV reflectance in spider silk for the purpose of capturing prey." The difference is subtle, but so is the theory of evolution, which states that evolution is the nonrandom trend of species toward adaptation based on successful transmission of random mutations conferring survival.

Evolution is neither nonrandom nor random. By using an active verb, Wickelgren seems to imply that evolution has a purpose, which it has not.

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I think Bruce Bower missed the point of the letter from Irwin Taylor (Letters, SN: 6/3/89, p.339). Mr. Taylor's point is that behavioral scientists seem to misunderstand exactly how evolutionary processes (i.e., chaotic ones) work. There is no evidence that some

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