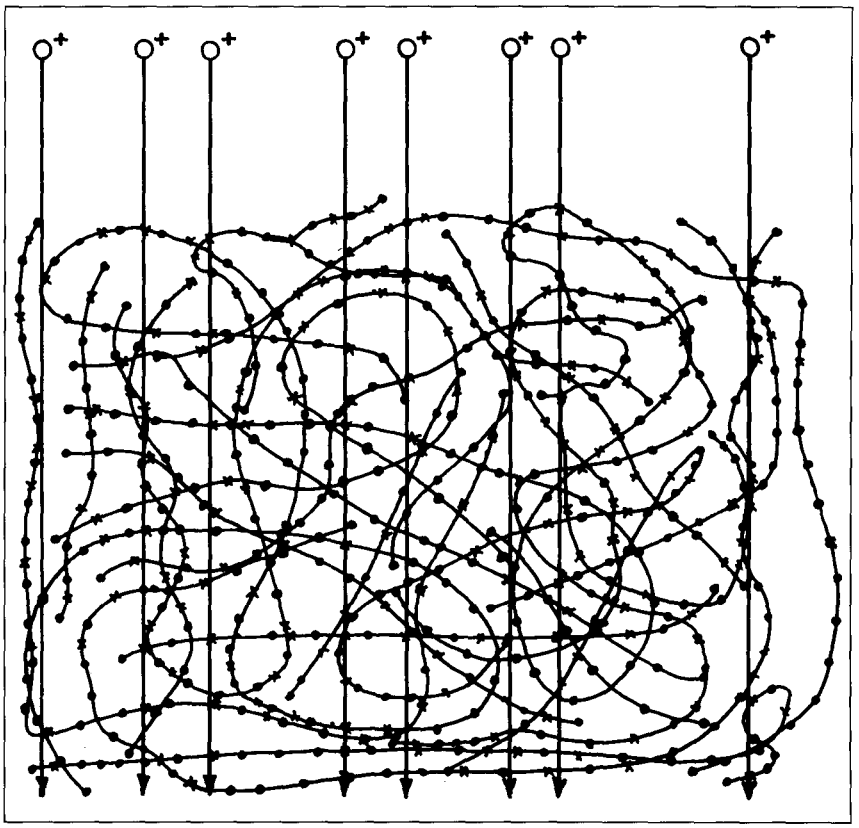
Figures appearing in the EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated to the original meaning. Submissions of candidate figures are welcome and should include a complete source citation, a photocopy of the report in which it appears (or will appear), and a reproduction-quality original drawing or photograph of the figure in question.



How often have you worried about carbon depletion under irradiation? As carbon-based life, wouldn't you think that hazard should concern us? Well, not to worry. Unless your organic molecules are genetically predisposed to being highly crystalline and well oriented with respect to directions from which radiation is likely (we could not find the precise medical term for this condition), you are pretty safe. If you are still worried, may we refer you to an article by U.K. Chaturvedi, A. Patnaik, and A.K. Nigam that appeared in *Radiation Effects* **104** (1987) p. 43–50, where the depletion of carbon in ultrahigh molecular weight polyethylene as a result of radiolysis under a 340 keV beam of deuterons was studied. The authors found experimentally that much less carbon is lost than would be expected based on the number of carbon-carbon bond scissions that occur. Two reasons advanced are that (1) unless the scissions occur rapidly and repeatedly at the same site, recombinations are likely and (2) unless the scission points are close together along a molecular chain, fragments of low enough molecular weight to leave the material quickly are not formed as often. The figure reproduced in this month's EDITOR'S CHOICE, which looks more like a barbed wire barrier than polyethylene, is how these authors schematically illustrate the random occurrence of scissions (x) between the carbon atoms (•) of amorphously disposed molecular chains as deuterons (O+) penetrate (→) the material. Hence the maxim, "Oh, what a tangled web we weave, when bending bonds ions would cleave."

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