



Hot and Cold

In formulating my thoughts for this piece, I was somehow reminded of the cyclical nature of science—something that Larry Faulkner referred to in his Acheson Award address (*Interface*, Winter 2000)—of how a given research field suddenly becomes “hot.” The bandwagon effect then kicks in, feeding on itself, much like an autocatalytic process in chemistry. We are currently witnessing such a trend in nanotechnology. Language and speech trends go through cyclical phases too. For example, now things are “cool” and “tight,” unlike the “groovy” and “hip” of when I was growing up! Other aspects of life in general, such as music and clothing fashions, also undergo hot and cold cycles. Perhaps these cyclical trends are a reflection of one’s ability to stay young and vibrant—to wit, a person becomes “not where it’s at” (à la Bob Dylan) when he or she goes “out of phase” with these cycles.

Turning to a more serious topic, we learn that the U.S. has rejected the terms of the Kyoto Protocol. Yet, as discussed in some depth in the preceding special issue of this magazine on global warming, newer data released every month suggest that policy makers ought to be making a concerted effort to reduce the risks from global warming, despite the attendant economic burden. As one atmospheric scientist recently pointed out, “I don’t know if my house is going to burn down, but you can safeguard against a catastrophic event by buying a little bit of insurance.”

What is cold now? You’ve guessed it! It’s the New Economy and tech stocks. There’s another cyclical trend for you. It is not too long back when dot-coms were the rage and the darlings of the venture capitalists. When is the market going to rebound? In an economist’s language, if we are currently at or near the bottom in a “U” (even a very shallow U) trend, then we are indeed in a cycle. History does suggest that, eventually, some of the tech stocks will soar again.

Speaking of history and high temperatures, the Division (High Temperature Materials) that we are featuring in this particular issue happens to be a progeny of the first formalized Division of the Society, namely, the Electrothermics Division. It changed its name to the Electrothermics and Metallurgy Division in 1954. Its name was again changed to the present one in 1982. I hope you will find the four features that we have lined up—on topics ranging from fuels cells, high temperature thermodynamic data, to materials synthesis—to be both informative and reader-friendly. Elizabeth Opila, the Guest Editor of this issue, deserves much of the credit for coordinating these contributions. Stay tuned.

Krishnan Rajeshwar
Editor

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