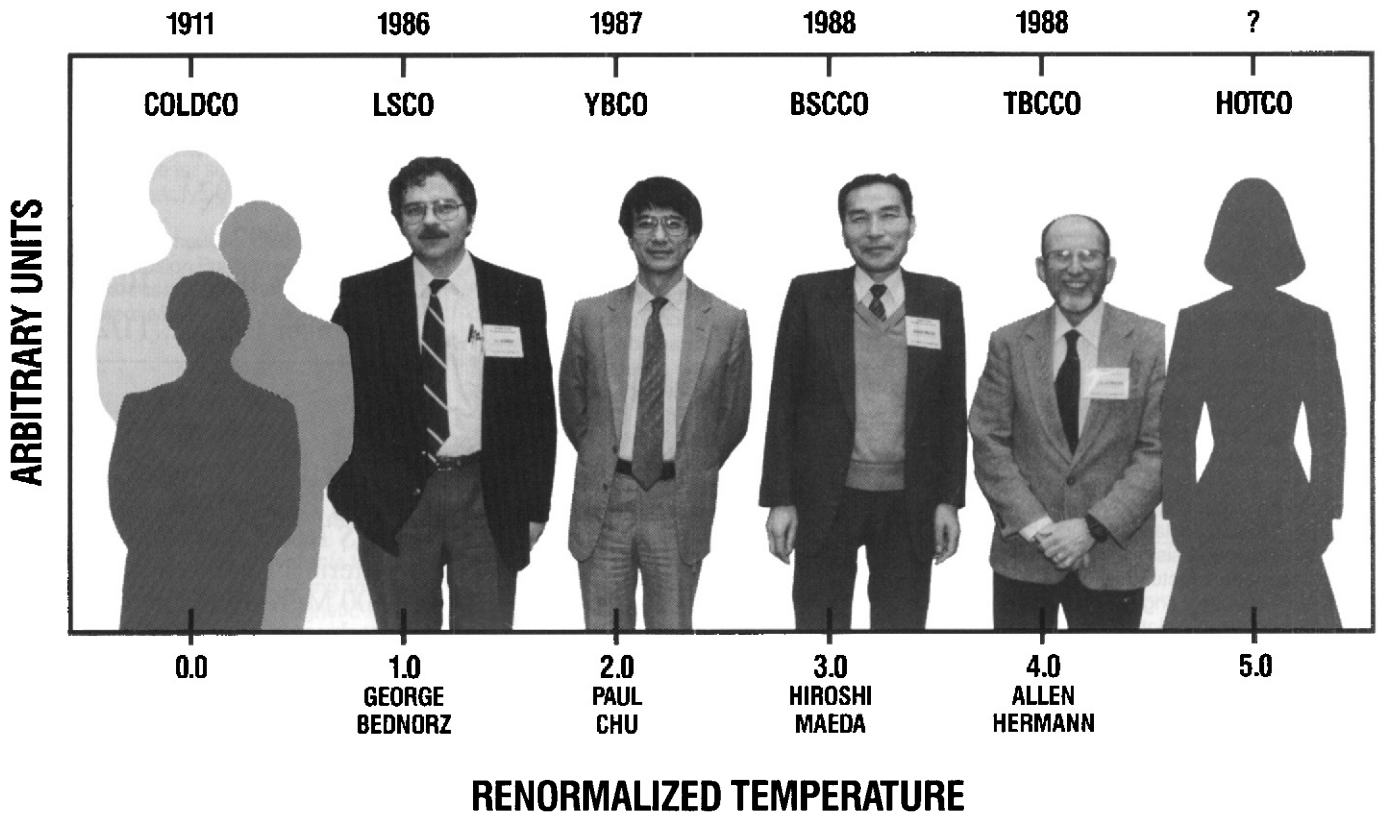


Figures appearing in the EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated 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.



Once again we illustrate the *MRS Bulletin's* editorial flexibility by ignoring our own guidelines for figures selected by EDITOR'S CHOICE. We have here an artist's embellishment of a photo taken at the March 1991 meeting of the American Physical Society in Cincinnati, Ohio, USA. Not by pure coincidence, we find the scientists whose groups are credited with milestone discoveries of new high-temperature ceramic cuprate superconductors lined up along the abscissa in order of increasing maximum critical temperature of their respective phases. Schematic extrapolations to lower and higher temperatures have been added to guide the eye. The "COs" labeling each benchmark are spelled out below. Of greater fundamental significance is that the equally spaced tick marks on the time and temperature axes define new scales (renormalized, if

you will) for those independent variables. Time scales based on astronomical phenomena and temperature scales pinned at melting and boiling points of common materials such as water are too linear and now passé. Apropos of the revolutionary character of the high T_c materials themselves, here we have the makings of revolutionary new scales of time and temperature—decidedly nonlinear with re-entrant derivatives and ingeniously coupled to each other so that they evolve in concert in an as-yet-undetermined way. (Full elucidation requires general relativistic thermodynamics and is beyond the scope of this caption.) Whereas it will likely be some time before universal adoption by the technical community, the sociological implications of this new metric for the discovery process boggle the mind.

ENK

COLDCO = Considerably-Older-Less-Dramatic-COnductors
LSCO = Lanthanum-Strontium-Copper-Oxide
YBCO = Yttrium-Barium-Copper-Oxide

BSCCO = Bismuth-Strontium-Calcium-Copper-Oxide
TBCCO = Thallium-Barium-Calcium-Copper-Oxide
HOTCO = Highly-Optimistic-Theoretical-COnduct