

A High- T_c Myth and Its Real-World Meaning

William Graham (September, page 144) states that the notion that the July 1987 Federal Conference on Commercial Applications of High Temperature Superconductors did not exclude foreign participants is a "myth." I did not attend that conference, but every report I heard projected this myth as well as stating that the US would spend \$150 million for high- T_c superconductors, that this is the test of US competitiveness and that we must beat the Japanese. Whatever the facts are, I wish to point out one consequence of the myth.

In November 1987 I was invited to spend two weeks in Japan to discuss high fields and technologies because the Japanese were planning a new high-field facility that was not yet funded. I could not accept the invitation because the NSF Panel on Large Magnetic Fields planned to meet during that time, and I was a member. On 26 and 27 January 1988, J. David Litster and I led an MIT Industrial Liaison Office symposium entitled High-Temperature Superconductivity: Implications for Industry. A representative from the UK, a representative from Japan and several representatives from US industry and government were invited. Graham also was invited to participate; however, his office notified us that he was unable to attend.

At this symposium, Koichi Kitazawa of the University of Tokyo, the Japanese representative, gave an overview of Japanese efforts and projected funding. He mentioned that both a high-temperature superconducting laboratory, ISREC, and a new high-field facility at Tsukuba had been funded—the latter for about \$65 million. (It turns out that funding for the high-field laboratory is \$100 million, and the planned facilities follow the NSF large-field panel's recommendations for the US.) I asked Kitazawa how the Japanese managed to get funded so rapidly—in November funds were not available for the high-field facility. The answer was four words: "We thank your President!" I asked, "How so?" He reminded me of the July meeting in Washington, in which President Reagan participated and from which, Kitazawa said—stating the myth—foreign nationals were excluded. The Japanese scientists were asked how Japan should respond, and they suggested funding of a high-field laboratory and a high-temperature laboratory. Both were funded.

Whatever the intent of the July

meeting arrangements, they caused considerable distress to members of the scientific community who recognized that the breakthrough was made by foreign nationals and that restrictions would be counterproductive. Certainly, the reasons for not inviting foreigners to participate were not enunciated in a clear manner, and the consequences were far reaching. For the Japanese, in this case, a myth was as good as a pile (of real money).

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Some Good v 's About γ and Landau

In the article "Reminiscences of Landau" (May 1989, page 34), I. M. Khalatnikov, director of the L. D. Landau Institute for Theoretical Physics in Moscow, wrote about Lev Landau's view of the late George Gamow. Khalatnikov recalled that after seeing Gamow some time after the latter had emigrated to the West, "Landau spoke about the 'new' Gamow with regret and even some loathing."

As close friends and colleagues of Gamow from the time of World War II until his untimely death in 1968, we found this view held by Landau to be almost unbelievable, even given Landau's penchant for very strong opinions about some scientists. We found it particularly poignant since, as anyone who has read Gamow's autobiography *My World Line* will remember, Gamow's view of Landau was almost the exact opposite, most complimentary and warm. Since we had very friendly interactions with Khalatnikov some years ago, we felt it appropriate to write to him concerning this matter.

We are deeply indebted to Khalatnikov, who kindly sent us a very interesting response clarifying the mistranslation of a Russian word that he notes actually means "disapproval"; we add that at worst it can be translated as "low regard" or "censure." We quote the relevant main body of the letter below, with his permission, because it explains and softens this difficult situation, adds to the human dimensions of his article and also contains the first announcement in the United States, to our knowledge, of the happy news of Gamow's posthumous reinstatement as a corresponding member of the USSR Academy of Sciences:

"There is no need to explain to me the strengths and merits of Gamow. All my lifetime I have always held

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