setts Amherst in 1977. Before students could begin their research in that department, they had to demonstrate graduate-level expertise in all areas of chemistry, even those seemingly unrelated to their research. Thus I also had to pass courses for inorganic and physical chemistry.

To become a PhD candidate, one then had to pass six, hours-long cumulative exams given periodically over two years. The questions depended on the specialty of the professor who set the exam. If that was photochemistry, then the questions were all about that field; likewise for physical organic chemistry, natural products, and so on. Moreover, questions were sometimes written in German; if you could not understand them, then too bad for you! Most students taking one of those exams did not receive a passing grade.

I am left to conclude either that educational standards in the physical sciences have declined considerably over the years or that Das Sarma's institution is an anomaly.

Michael McLaughlin (mmclaughlin1@cox.net) McLean, Virginia

A US physicist and the military draft

harles Day's editorial "Drafting physicists" in the January 2019 issue of PHYSICS TODAY (page 8) brought to mind my own interesting interactions with the military during my early years.

I was too young for the Korean War but still had to register for the draft at age 18. After that I had various deferments, mostly for education. My graduate schooling was supported by a National Defense Education Act fellowship, which gave priority to students who planned on becoming college professors.

I received a PhD in 1966 and accepted a position as an assistant professor of physics at the South Dakota School of Mines and Technology in Rapid City. That employment ended my educational deferment. In a few months I received notice to report for the physical, in Sioux Falls. I remember taking the long overnight bus ride from Rapid City with some of the students I'd taught at the School of Mines.

The head of the physics department was dismayed that I would have to leave my position. He encouraged me to appeal and wrote a letter for me to present to the draft board, stating how hard it was for him to recruit a college physics professor and how much the nation needed to educate upcoming physicists and engineers. Apparently, the members of the draft board were persuaded: I did not have to report for duty.

Years later, at my high school reunion for the class of 1955 in Huntley, Wyoming, I noticed others had red carnations in their buttonholes. I asked the woman at the desk about them, thinking that I might be getting one. I was told that carnations were for those who served in the armed forces. Not until then had I felt even a twinge of regret for not serving my country. It did not matter what accomplishments I may have had as a physicist; in fact, no one there knew—or cared—what those might be. Without a carnation, I was labeled.

William H. Southwell (bill@tablemountainoptics.com)
Thousand Oaks, California







Optical / Electrical / Nano surface METROLOGY SOLUTIONS



Ellipsometry • Porosimetry • C-V • I-V • Contamination • Mobility • Resistivity • AFM • Nanoindentation



