December 12, 2018

Dr. Jacqueline K. Barton, Chair  
Division of Chemistry and Chemical Engineering  
California Institute of Technology

Dr. David Reichman, Chair  
Department of Chemistry  
Colombia University

Dr. Matthew Shores, Chair  
Department of Chemistry  
Colorado State University

Dr. Brian Crane, Chair  
Department of Chemistry and Chemical Biology  
Cornell University

Dr. Stefan Lutz, Chair  
Department of Chemistry  
Emory College

Dr. Caroline Chick Jarrold, Chair  
Department of Chemistry  
Indiana University Bloomington

Dr. Charles Lieber, Chair  
Department of Chemistry and Chemical Biology  
Harvard University

Dr. David Yarkony, Chair  
Department of Chemistry  
Johns Hopkins University

Dr. Neal Woodbury, Director  
School of Molecular Sciences  
Arizona State University

Dr. Marc L. Snapper, Chair  
Chemistry Department  
Boston College

Dr. William S. Jenks, Chair  
Department of Chemistry  
Iowa State University

Dr. William Buhro, Chair  
Department of Chemistry  
Washington University in St. Louis

Dr. Katherine J. Franz, Chair  
Department of Chemistry  
Duke University

Dr. Edmond F. Bowden, Head  
Department of Chemistry  
North Carolina State University

Dr. Robert E. Maleczka, Chair  
Department of Chemistry  
Michigan State University

Dr. Steven K. Buratto, Chair  
Department of Chemistry and Biochemistry  
University of California, Santa Barbara

Dr. M.G. Finn, Chair  
School of Chemistry and Biochemistry  
Georgia Institute of Technology

Dr. Timothy F. Jamison, Head  
Department of Chemistry  
Massachusetts Institute of Technology
Dr. James Canary, Chair  
Department of Chemistry  
New York University

Dr. G. K Surya Prakash, Chair  
Department of Chemistry  
University of Southern California

Dr. Kurt Zilm, Chair  
Department of Chemistry  
Yale University

Dr. Teri W. Odom, Chair  
Department of Chemistry  
Northwestern University

Dr. Simon North, Head  
Department of Chemistry  
Texas A&M University

Dr. David W. Christianson, Chair  
Department of Chemistry  
University of Pennsylvania

Dr. W. Dean Harman, Chair  
Department of Chemistry  
University of Virginia

Dr. Sunil Saxena, Chair  
Department of Chemistry  
University of Pittsburgh

Dr. David Jonas, Chair  
Department of Chemistry  
University of Colorado Boulder

Dr. Martin Gruebele, Head  
Department of Chemistry  
University of Illinois at Urbana-Champaign

Dr. Roger L Miesfeld, Head  
Department of Chemistry and Biochemistry  
University of Arizona

Dr. Susan Olesik, Chair  
Department of Chemistry and Biochemistry  
Ohio State University

Dr. Philip Bevilacqua, Head  
Department of Chemistry  
Penn State

Dr. Jared Shaw, Chair  
Department of Chemistry  
University of California, Davis

Dr. Lisa McElwee-White, Chair  
Department of Chemistry  
University of Florida

Dr. Tom Muir, Chair  
Department of Chemistry  
Princeton University

Dr. James Nowick, Chair  
Department of Chemistry  
University of California, Irvine

Dr. Andrei Tokmakoff, Chair  
Department of Chemistry  
University of Chicago

Dr. Christine Hrycyna, Head  
Department of Chemistry  
Purdue University

Dr. Robert Kennedy, Chair  
Department of Chemistry  
University of Michigan

Dr. Matthew B. Francis, Chair  
College of Chemistry  
University of California, Berkeley

Dr. Catherine Clarke, Chair  
Department of Chemistry and Biochemistry  
University of California, Los Angeles

Dr. Janice E. Reutt-Robey, Chair  
Department of Chemistry and Biochemistry  
University of Maryland, College Park

Dr. D. Michael Heinekey, Chair  
Department of Chemistry  
University of Washington

---

National Federation of the Blind

Mark Riccobono, President | 200 East Wells Street at Jernigan Place Baltimore, MD 21230 | 410 659 9314 | www.nfb.org
Dear Chemistry Department Directors and Chairs:

I write to you on behalf of the National Federation of the Blind (NFB), the nation’s largest organization of blind people in the United States, to alert you to accessibility barriers in tests produced and distributed by the American Chemical Society Division of Chemical Education Examinations Institute (ACS Exams).

Specifically, ACS Exams does not make available in Braille all versions of its chemistry tests, to the detriment of blind students. This lack of readily available Braille versions of ACS Exams has created unnecessary obstacles between blind chemistry students and the advancement of their chemistry studies. In some cases it is the lack of access to these very tests, which are used by colleges and universities across the country for placement and subject-mastery measures, that persuade blind students to shift their majors to another academic field or to delay their chemistry studies indefinitely.

In July of this year, the National Federation of the Blind brought our concerns directly to the American Chemical Society (ACS) and ACS Exams leadership. We were informed by Kristen Murphy, Director of ACS Exams, that ACS Exams had produced a Braille version of one of its placement exams, but because no one had asked to use it, ACS Exams delayed Braille production of all other exams. This explanation was of grave concern given that earlier this year ACS Exams denied requests by the University of Northern Colorado for a Braille version of an organic chemistry placement test. Though ACS claims that it is “committed to making accessibility a reality for all . . . members and other constituents, including those with disabilities,”¹ ACS Exams’s recent rejection of requests for Braille seriously calls into question this commitment. Moreover, ACS Exams continues to produce a vast number of other chemistry exams that are not

---

¹ See [https://www.acs.org/content/acs/en/accessibility-statement.html](https://www.acs.org/content/acs/en/accessibility-statement.html).
accessible to blind students. The NFB has attempted on several occasions to discuss this matter with ACS and ACS Exams but our requests have been ignored.

When ACS Exams fails to provide Braille, tactile graphics, or other accessible formats of its tests, it puts universities such as yours at risk of violating federal law. Schools must then take necessary steps to timely emboss or remediate the exams so that students with disabilities have full and equal access to the content, as required by the Americans with Disabilities Act and Rehabilitation Act of 1973. This process of relying on Braille transcription services or university staff to translate and emboss ACS Exams’s chemistry tests for one student at a time, raises questions about the resulting test’s integrity, particularly for an entity that prides itself on its nationally normed, standardized tests.

Passing accessibility requirements onto its customer base is not a practice the National Federation of the Blind recommends to any entity. Per ACS Exams, it has the ability to distribute Braille versions of its tests, but has chosen not to do so. This is unacceptable; blind students must not be pushed out of their studies by tests that fail to measure their mastery of chemistry and instead measure their ability to see and read the inaccessible tests. Until ACS Exams demonstrates its willingness to distribute Braille versions of all of its tests, the NFB urges your chemistry department to forgo use of any ACS exam and to forgo membership in the American Chemical Society.

The NFB welcomes any questions you may have about our position on this matter. We are happy to direct you to our Science and Engineering Division for information on how to make chemistry accessible to blind students. Please contact Valerie Yingling, legal program coordinator, at vyingling@nfb.org for additional information.

Sincerely,

Mark A. Riccobono, President
National Federation of the Blind

MAR/vy

Cc: Kristen Murphy, Director, ACS Exams
    Thomas M. Connelly Jr., Executive Director and Chief Executive Officer, ACS
    Stephan Smith, Executive Director, AHEAD
    John Miller, President, Science and Engineering Division of the NFB