

CURRICULUM VITAE

ARNO S. BOMMER - PRINCIPAL CONSULTANT

Collaboration in Science and Technology Inc.
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Birth Date: 25 February 1960

Birth Place: Salem, MA

Citizenship: U.S.

PROFESSIONAL REGISTRATION

Board Certified by the Institute of Noise Control Engineering (INCE)

EDUCATION

Massachusetts Institute of Technology, B.S., Architectural Design, 1982

PROFESSIONAL EXPERIENCE

MIT Energy Lab, Programmer/Researcher, 1978-1980

MIT Dept. of Architecture, Renovator, 1981

Hoover Keith & Bruce Inc., Consultant, 1982-1987

Collaboration in Science and Technology Inc., Supervisory Consultant,
1987-Present

HONORS AND SOCIETIES

Former President, MIT Alumni Club of South Texas

Member, Acoustical Society of America

Former Board Member, Institute of Noise Control Engineering

Past Chairman, Houston Chapter of Acoustical Society of America

PROFESSIONAL RESPONSIBILITIES AND PROJECTS

At Collaboration in Science and Technology Inc. (CSTI), Mr. Bommer has worked on a variety of acoustical projects, from equipment noise tests to micro-chip manufacturing plant vibration studies.

In the field of industrial noise and vibration control, Mr. Bommer has worked in power plants, petrochemical plants, materials-processing plants,

electronics manufacturing plants, offshore platforms, and aircraft manufacturing facilities. He has worked on existing facilities and facilities in the design stage.

For offices, residential buildings, worship spaces, and exercise facilities, Mr. Bommer has designed walls and ceilings to improve noise isolation and/or speech privacy and has measured STC and IIC for apartment buildings. Mr. Bommer has specified room shaping and surface materials to improve speech intelligibility and music presentation in churches, theaters, conference rooms, museums, and auditoria. He has also designed noise control treatments for mechanical equipment including computers, transformers, elevators, HVAC systems, chillers, compressors, pumps, and cooling towers.

Mr. Bommer has conducted noise modeling and made noise and vibration measurements. He has designed treatments to reduce in-plant and community noise by reducing the sound power of the sound source, limiting the effectiveness of the sound transmission path, and isolating the sound receiver.

Mr. Bommer has consulted with research facilities housing rodents for medical research. He has analyzed the propagation of structure borne sound due to construction through the facility to determine the potential impact on both humans and rodents. This work has been performed in both Houston and Los Angeles.

On legal cases, Mr. Bommer has made sound measurements, conducted modeling and acoustical calculations, and provided expert-witness testimony.

CHAPTERS IN BOOKS

A House Call from Space, Booklet for Children of Parents With End Stage Renal Disease, with R. Smith, R.D. Bruce, and L.M. Bruce, 1986.

"Noise, Vibration, and Ultrasound," Chapter 20, The Occupational Environment: Its Evaluation and Control, with R.D. Bruce and C.T. Moritz, Salvatore R. DiNardi (ed.), AIHA, Fairfax, VA, 1997.

"Noise, Vibration, and Ultrasound," Chapter 20, The Occupational Environment: Its Evaluation and Control 2nd Edition, with R.D. Bruce and C.T. Moritz, Salvatore R. DiNardi (ed.), AIHA, Fairfax, VA, 2003.

"Sound Power Level Predictions for Industrial Machinery," Chapter, Handbook of Noise and Vibration, with R.D. Bruce and C.T. Moritz, Malcolm Crocker (ed.), John Wiley & Sons, Inc., New York, NY, 2005.

OTHER PUBLICATIONS

"Cogeneration noise sources and control," with R.D. Bruce, *The Journal of the Acoustical Society of America*, Vol. 90, No. 4, Pt. 2, October 1991, p. 2242.

"Long-Term Ambient Sound Monitoring in National Parks," Sound and Vibration, with R.D. Bruce, February 1992, pp. 16-18.

"Special Concerns of Noise Control on Offshore Platforms," J. Acoust. Soc. Am., with R.D. Bruce, Vol. 92, No. 4, Pt. 2, October 1992, p. 2381.

"Cogeneration Plant Noise Analysis and Control," with R.D. Bruce and G.R. Hepler, presented at the Power-Gen Americas '93, Dallas, TX, November 1993.

"Sound isolation of an audiometric test room," with C.T. Moritz, *The Journal of the Acoustical Society of America*, Vol. 96, No. 5, Pt. 2, November 1994, p. 3267.

"The Occupational Noise Book," with R.D. Bruce, NIOSH, (in review) 2004.

"The presence of infrasound in our everyday life," with R.D. Bruce and K.A. Lefkowitz, *The Journal of the Acoustical Society of America*, Vol. 124, No. 4, Pt. 2, October 2008, p. 2450.

"A New Approach to Noise Control in the Workplace," with R.D. Bruce, K.A. Lefkowitz, and B. Levesque, *Inter-Noise 2009*, Ottawa, ON, Canada, Aug. 2009.

"Ultrasound in the Home and Workplace," with R.D. Bruce and K. Lefkowitz, *Inter-Noise 2009*, Ottawa, ON, Canada, Aug. 2009

"Making shop noise tests under difficult circumstances," with R.D. Bruce, *Inter-Noise 2009*, Ottawa, ON, Canada, Aug. 2009

"Safe Lifetime Occupational Noise Exposure—1 LONE," Sound and Vibration, with R.D. Bruce, N. W. Hart, and K.A. Riegel, June 2011, pp. 8-11

"Solving AIV problems in the design stage" with R.D. Bruce and T.E. LePage, Inter-Noise 2012, New York City, NY, Aug. 2012

"Industrial Motor Noise Control History, Cost & Benefits," with R.D. Bruce, Chris Barnobi, and Adam Young, National Academy of Engineering, Fall 2015.

"What Causes Quiet Products to Come to Market?" with Edgar Olvera, R.D. Bruce, Adam Young, and Isaac Harwell, ASA Meeting, 2016.

"Modeling and measurements of aircraft noise for single-family houses to meet local ordinance" with Christopher Barnobi, Mike Greene, Adam Young, R.D. Bruce, and Isaac Harwell. PROCEEDINGS of the 22nd International Congress on Acoustics, Buenos Aires, September 2016.

"The Use of Background Noise to Mask Objectionable Sounds to Rodents" with R.D. Bruce, Isaac Harwell, and Adam Young, Acoustical Society of America 175th Meeting, Minneapolis, MN, May 2018

"A review of offshore noise levels" with R.D. Bruce and Adam S. Young, Inter-Noise 2018, Chicago, IL, August 2018.

"Acoustically induced vibration questionnaire" with Isaac D. Harwell, R.D. Bruce, and Adam S. Young, Inter-Noise 2018, Chicago, IL, August 2018.