

Selected References for Afternoon Session

Biomonitoring California Scientific Guidance Panel Meeting March 2, 2018

The following references are background materials for the afternoon session on “Community Exposure to Air Pollutants – A Role for Biomonitoring” at the [March 2018 Scientific Guidance Panel Meeting](#).

References related to presentation on “Transforming California's Approach to Community Air Pollution. *New Community Air Protection Program Established under AB 617.*”

California Air Resources Board (CARB) Community Air Protection Program website:
<https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617>

CARB Community Air Protection Program Framework. Concept Paper:
https://ww2.arb.ca.gov/sites/default/files/2018-02/capp_concept_paper_february_2018.pdf

Assembly Bill 617, C. Garcia, Chapter 136, Statutes of 2017:
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB617

References related to presentation on “Advances in Biomonitoring Methods for Volatile Organic Compounds.”

Alwis KU, Blount BC, Britt AS, Patel D, and Ashley DL (2012). Simultaneous analysis of 28 urinary VOC metabolites using ultra high performance liquid chromatography coupled with electrospray ionization tandem mass spectrometry (UPLC-ESI/MSMS). *Anal Chim Acta* 750:152-160. [Link to abstract](#). Full article available upon request.

Bagchi P, Geldner N, deCastro BR, De Jesús VR, Park SK, et al. (2018). Crotonaldehyde exposure in U.S. tobacco smokers and nonsmokers: NHANES 2005-2006 and 2011-2012. *Environ Res* 163:1-9. [Link to abstract](#). Full article available upon request.

Blount BC, Kobelski RJ, McElprang DO, Ashley DL, Morrow JC, et al. (2006). Quantification of 31 volatile organic compounds in whole blood using solid-phase microextraction and gas chromatography-mass spectrometry. *J Chromatogr B Analyt Technol Biomed Life Sci* 832:292-301. [Link to abstract](#). Full article available upon request.

Chambers DM, Ocariz JM, McGuirk MF, and Blount BC. (2011). Impact of cigarette smoking on volatile organic compound (VOC) blood levels in the U.S. population: NHANES 2003-2004. *Environ Int* 37:1321-1328. [Link to abstract](#). Full article available upon request.

Chambers DM, Reese CM, Thornburg LG, Sanchez E, Rafson JP, et al. (2018). Distinguishing petroleum (crude oil and fuel) from smoke exposure within populations based on the relative

blood levels of benzene, toluene, ethylbenzene, and xylenes (BTEX), styrene and 2,5-dimethylfuran by pattern recognition using artificial neural networks. Environ Sci Technol 52:308-316. [Link to abstract](#). Full article available upon request.

Jia C, Yu X, and Masiak W. (2012). Blood/air distribution of volatile organic compounds (VOCs) in a nationally representative sample. Sci Total Environ 419:225-232. [Link to abstract](#). Full article available upon request.

Kirman CR, Aylward LL, Blount BC, Pyatt DW, and Hays SM (2012). Evaluation of NHANES biomonitoring data for volatile organic chemicals in blood: application of chemical-specific screening criteria. J Expo Sci Environ Epidemiol 22:24-34. [Link to abstract](#). Full article available upon request.