

RAPID, EFFICIENT MICROWAVE-ASSISTED DIGESTION OF PLANT-BASED MILKS FOR TRACE METALS ANALYSIS. **Bob Lockerman**, Samuel Heckle, Marcy Harris, CEM Corporation, 3100 Smith Farm Road, Matthews, NC 28104. (Bob.Lockerman@cem.com)

Plant-based milks are becoming increasingly popular alternatives to dairy milk. While some plant-based milks, such as soy and almond, have become mainstream, more and more alternative milks, such as coconut and oat milk are also increasing in popularity. These non-dairy milks are derived from nuts, seeds, and other plant-based sources. Many plants and nut trees are effective bioaccumulators of inorganic compounds. Plants uptake metals from soils via the root and vascular system and can concentrate elements in the leaf, fruit, and flower. As these plants are processed into downstream products (such as non-dairy milks), plants grown in contaminated soil can accumulate heavy metals, increasing a consumer's heavy metal exposure. The heavy metals known as the big four (As, Pb, Cd, Hg) are of particular concern due to their potential toxicity. In this study, metal concentrations are measured and compared for plant-based milks and cow's milk. The metals are measured after microwave digestion and ICP-MS analysis of the milks.