



NIOH RESEARCH DAY – 2024

ABSTRACT SUBMISSION

Kindly refer to the guidelines below. Do not send unformatted abstracts, which have been written for other publications or purposes, such as university academic days or conferences. Such submissions will be returned, to be rewritten according to our guidelines.

E-mail your abstract to: Research.Relations@nioh.ac.za before 16th September 2024.

Indicate in your email whether you'd prefer an **oral presentation** or a **poster presentation**. Poster presentations will be in electronic format and will be have a pre-recorded voice over made available to delegates via the online platform; and a short time will be allocated in the program for you to answer questions. More details will follow after your abstract has been accepted.

Abstract Guidelines:

- Font Arial should be used.
- Single spacing
- Abstract is limited to **300 words** (this does not include the title, author's names and institutions).
- Abstract title: Font size 14 pt, bold.
- Authors: Font size 12 pt, bold+italic. Please provide authors' full first and last names, and underline the presenting author.
- Affiliations: Font size 12 pt, italic, denoted by arabic numbers in superscript (^{1, 2, 3}) after each author's last name. Please indicate your Section at NIOH.
- Please provide the email address to which all the correspondence should be addressed.
- Abstract text: Font size 12 pt; should cover a brief introduction, main objectives, methods, results and discussion.

Feel free to use the example below (copy-paste your information):

Title: Asbestos containing materials assessment: Legacy in South African samples from 2018-2022

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Abstract:

Introduction

In-line with the recommendation by the World Health Organization and International Labour Organization, mining, manufacturing and use of asbestos has been banned for decades in many countries, including South Africa in an effort to eliminate asbestos-related diseases (ARDs). However, the legacy of the mineral still remains as ARDs are still diagnosed, globally. This legacy is pervasive as thus far the ARDs aetiology and the related exposome to the silicate is beyond occupational exposure. This report describes the prevalence of asbestos containing materials in the samples analysed and stored in an in-house electronic database between 2018-2022.

Method

The National Institute for Occupational Health, Pathology Division provides scanning electron microscopy and electron dispersive spectrophotometry service for asbestos fibre identification and analysis. In the five-year period, 1012 samples consisting of bulk, soil and air filter samples were analysed. Statistical analysis of data was conducted on STATA16 software.

Results and Discussion

In total, 44% of the samples analysed contained asbestos, with 53% and 9% of the bulk and air filter samples containing the silicate, respectively. The highest asbestos positivity rate (79%) was from the administrative & support services industry. Notably, more than half of the samples from residential and real estate activities contained asbestos, suggestive of environmental exposure. Cement products which

are found in both occupational and residential settings were the most common materials to contain asbestos. Chrysotile was present in 88% of the samples that contained asbestos and a third (34%) of the samples contained the mineral as a mixture of a serpentine and an amphibole.

Conclusion

The high number of asbestos-containing samples detected from the samples from various industries in the 5-year period highlights the continued occupational and environmental exposure to asbestos of the South African population. Hence, the surveillance of asbestos-containing materials in both settings is pivotal in monitoring the elimination of exposure to the mineral in Southern Africa.