



COETox

International Conference of Environmental and Occupational Health

ABSTRACT BOOK



iBAMTOX
Ibero-American Meeting on Toxicology and Environmental Health

2016

21-23 June | Porto



FOREWARD



On behalf of the Organising Committee, I would like to cordially welcome you to the *3rd International Conference on Occupational & Environmental Toxicology* (ICOETox 2016), which is held in Porto in conjunction with the *3rd Ibero-American Meeting on Toxicology and Environmental Health International* (IBAMTOX 2016).

This conference is co-organised by the Portuguese National Institute of Health (INSA), the Institute of Public Health- Universidade do Porto (ISPUP) and the Instituto de Ciências, Tecnologias e Agroambiente da Universidade do Porto (ICETA-UP).

The Organising Committee was successful in inviting a number of outstanding international and local speakers in order to offer you a very attractive scientific programme. The Conference covers most of the current topics of Environmental and Occupational Toxicology; we have tried to achieve a good balance between research and practice and to allow sufficient time for interaction and discussion. This meeting provides a good opportunity for divulging one's work and discussing a great variety of topics that we hope will be reflected in a fruitful interchange of experiences, knowledge and ideas. It is also a chance for renewing old contacts and making many new friends.

The city of Porto, known as *Invicta* (unvanquished) City, has an important historical legacy, although architectural images show its urban renovation process giving valuable testimony of its history and modernity. Indeed, Porto historical centre was designated World Cultural Heritage in 1996 due to the many historical buildings and urban mesh. Porto is divided between the river Douro and the Atlantic Ocean, and boasts of poetic sunsets where the eyes absorb and the soul savours. Downtown is located the busiest commercial area, where typical products are found alongside prestigious designer brands. It is also worth highlighting the world famous Porto Wine, produced exclusively in the Douro Demarcated Region and aged in cellars. And finally, our visitors should not forget to try our local cuisine, as Porto has gone beyond tradition in order to reach the best international standards.

I would like to express my sincere thanks to our collaborating institutions and all those organisations and companies which put their trust in this project and provided sponsorship for the meeting; without their effort, support and collaboration this Conference would not have been possible.

I hope that, despite the tight scientific programme, you will find some time to enjoy our landscapes, typical food, and kind people, and that this meeting will meet all your expectations from the scientific and social points of view. I wish you a productive Conference and a pleasant stay in Porto. Thank you for being here.

Bem-vindos ao Porto!

(João Paulo Teixeira)

ICOETox 2016 | IBAMTOX 2016 Scientific Committee

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P56.**ASBESTOS – IDENTIFICATION ON BULK MATERIALS**M. Proença¹, Fátima Aguiar^{1*}, N. Rosa¹

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Asbestos is the generic term for various types of natural silicates of magnesium and / or iron, which have fibrous forms. Due to its properties, asbestos has been widely used in industry, it is estimated that is present in approximately three thousand different products. It is currently known that asbestos causes, various types of diseases in exposed human beings, such as asbestosis, lung cancer and mesothelioma (cancer of the pleura or peritoneum). Although the use of asbestos is already prohibited, its extended use in the past, requires the adequate surveillance in places where it is applied in order to reduce as much as possible the risk of exposure to this agent.

The Air and Occupational Health Unit of the National Institute of Health Doutor Ricardo Jorge (INSA) identifies since 1985, the presence of asbestos fibers in materials, using the Polarised Light Microscopy, method 9002 of NIOSH, Manual of analytical methods, fourth edition. Since its ban in 2005, by the Community Directive 2003/18/EC, requests for such assessments have risen considerably (about 300%) mainly in the assessment of air surveillance in schools. Requests for asbestos identification in materials, had a very significant increase since 2014, when the government undertook to carry out a survey of “materials suspected of containing asbestos” (MCA) in buildings, facilities and public facilities provided for in Law No. 2/2011 but, to date, it had not yet been made.

This study aims to make the evaluation of the results for all material samples analyzed in INSA since 2012, with regard to asbestos detection.

Conclusions from that study demonstrate that in 75% of the analyzed materials was not detected the presence of asbestos. The majority (84%) of materials where the presence of asbestos fibers was detected corresponds to asbestos cement sheets containing asbestos chrysotile type and in older cement sheets asbestos chrysotile and crocidolite type in accordance with the expectable.