

Case study of In-depth Work Environment Measurement and Assessment in Occupational Disease Epidemiology Investigation

SYMPOSIUM

We will introduce examples of working environment measurement and assessment of the unreported workplace routes of exposure to hazardous substances or how epidemiological investigations have been conducted to identify occupational diseases for new hazardous substances. The International Cancer Research Institute (IARC) reported that Cobalt metal with tungsten carbide has limited evidence in relation to lung cancer (2006). In Presentation 1, we present the results of exposure assessment for substances associated with lung cancer that are being exposed in a cemented carbide manufacturing process. The operators of overhead traveling crane in steel mill factory perform work to transmit large electric furnace to an appropriate working process. Workers can be exposed to various dangerous substances, which are caused by high temperatures under various conditions during work, rising to the top of the plant. Therefore, the purpose of In Presentation 2, is to investigate the harmful factors exposed to crane operators. In Presentation 3, pneumoconiosis occurs during the frying pan manufacturer process in Korea. For Presentation 4, we will show what kinds of artificial marble are used as luxury materials in kitchens and toilets in new apartments. Presentation 5 presents the results of identifying, measuring, and analyzing harmful substances through various advanced equipment such as PTR-ToF MS and traditional exposure assessment techniques in the cooking environment for identifying the causes of lung cancer of non-smoking female worker.

Exposure assessment of mixing worker in a cemented carbide manufacturing process

Jungah Shin (Institute of Occupation and Environment, Korea Workers' Compensation & Welfare Service, Korea, Republic of)

Pneumoconiosis in coating workers of a frying pan manufacture

Wonsuk Cha (Institute of Occupation and Environment, Korea Workers' Compensation & Welfare Service, Korea, Republic of)

Exposure assessment of the crystalline silica of artificial marble processing worker

Eunyoung Kim (Institute of Occupation and Environment, Korea Workers' Compensation & Welfare Service, Korea, Republic of)

In-depth Work Environment Measurement in Cooking Environment

Booook Kim (Institute of Occupation and Environment, Korea Workers' Compensation & Welfare Service, Korea, Republic of)

MODERATOR



Jee Yoen Jeong

JY Jeong is a professor, Department of occupational and environmental health, Yong In in the field of occupational health required by the government and companies. university. He has extensive experience in exposure assessment for chemical and biological agents. His recent research interests are the risk assessment for semiconductor industry, aerosol and gas exposure assessment for drivers, size-selective particulate sampling, and quality control for analytical data. Also, he is working as a deliberation member for the determination of occupational diseases, and acting as a member of various advisory committees

SPEAKERS



Jungah Shin

Dr. Jungah Shin is a senior researcher at the Institute of Occupation and Environment(IOE), Korea Workers' Compensation and Welfare Service. She is a exposure assessment team manager in work related-diseases investigations, therefore she has extensive experience in a variety of work sites where occupational diseases occur. She will also present at this symposium about a valuable case she experienced during investigations.



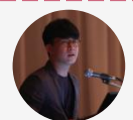
Wonsuk Cha

Wonseok Cha is conducting an epidemiological survey of workers' industrial accidents at the Institute of Occupation and Environment, Korea Workers' Compensation & Welfare Service.He is doing his PhD in the Department of Health.He is currently doing his PhD in the Department of Health. He has research experience in various manufacturing industries such assemiconductors, automobiles, and displays in graduate school. Currently, he is conducting epidemiological investigations in various fields such as cooking, casting, shipbuilding, and automobile manufacturing at work.



Eunyoung Kim

Eun Young Kim is a researcher at the Institute of Occupation and Environment, Korea Workers' Compensation&Welfare Service. She carries out a work related-diseases investigations. Therefore she has extensive experience in a variety of work sites where occupational diseases occur.



Booook Kim

Dr. Booook Kim received his doctorate in industrial health and industrial hygiene in 2011. He has been a senior researcher at the Institute of Occupation and Environment, KCOMWEL for 15 years. He is responsible for epidemiological investigations and assessments of exposure to diseases in various workplaces. He has a lot of experience and skills in measuring, analyzing, and evaluating risk factors in a wide variety of workplaces. He also published about 20 SCIE papers and 30 KCI papers.