



Dear reader,
here are NEWS for measuring ultrafine particles in ambient air and related subjects.

- 1 **Urban Air Pollution - a Major Cause of Pollution-related Cancer Science for Environment Policy 9 November, 2006 Issue 42 (EN)**
- 2 **September 21, 2006 - EPA strengthens National Ambient Air Quality Standards for Particle Pollution: annual mean for PM2.5 = 15µg/m³ (EN)**
- 3 **Nanoparticle Information Library (NIL) by NIOSH (EN)**
- 4 **COST action 633: Particulate matter: Properties related to health effects – documentation available**

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**1 Urban Air Pollution - a Major Cause of Pollution-related Cancer (EN)
DG ENV; Science for Environment Policy 9 November, 2006 Issue 42 (EN)**

Overall, the available evidence suggests that of all the above-mentioned environmental pollutants, outdoor air pollution and indoor radon exposure are the greatest causes of pollution-related cancer in Europe. The results from this study highlight that air pollution continues to be a serious problem in Europe despite policy efforts. New policies aiming at controlling emissions of air pollutants may be necessary to further protect human health.

Many man-made pollutants have severe negative impacts on human health. The current evidence in Europe linking non-occupational exposure to pollutants with a risk of cancer is very limited.

A new study has reviewed the epidemiological evidence linking exposure to pollutants with a risk of cancer, and has provided a quantitative estimate of the cancer pollutants may cause in Europe. The author considered non-occupational exposure to outdoor air pollution including residence near major industrial emission sources, asbestos, passive smoking, indoor radon, and other sources of indoor air pollution, arsenic in drinking water, chlorination by-products in drinking water, dioxins and electromagnetic fields.

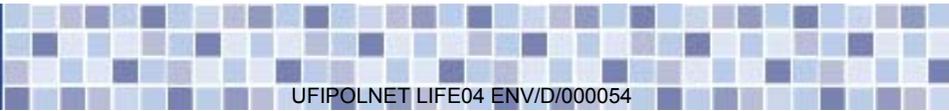
The risk of lung cancer attributable to air pollution, in particular fine particles (PM2.5), the most relevant indicator of air pollution, has been estimated to be 10.7% in Europe, corresponding to 20,942 cases in men and 6,112 cases in women annually. This figure corresponds to 1.9% of all cancer in men and 0.7% in women. Radon is another carcinogen present in indoor air, which may be responsible for 4.5% of lung cancer cases. This figure corresponds to 8,807 cases of cancer in men and 2,570 in women. The author also found that there may be an increased risk of bladder cancer due to water chlorination by-products.

The available evidence of a risk of cancer caused by exposure to other environmental pollutants such as pesticides, dioxins and electromagnetic fields is inconclusive.

Nevertheless, the author calls for great caution when interpreting the available evidence, due to different uncertainties in the components of such quantifications. For example, it is unknown whether PM2.5 represents the measure of air pollution relevant to its carcinogenic potential. They should be considered indicators of the possible order of magnitude of the risk based on current knowledge. More research is needed in order to provide more evidence of the cancer risk from certain pollutants.

Source: Paolo Boffetta (2006) « Human cancer from environmental pollutants: The epidemiological evidence », Mutation Research/Genetic Toxicology and Environmental Mutagenesis, 608(2): 157-162.

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3 Nanoparticle Information Library (NIL) by NIOSH (EN)

The National Institute for Occupational Safety and Health has build up a beta version of a database of research reports about nanoparticles. A short abstract and a picture are shown for every report. You can search by elements and/or structures.

Source: <http://www2a.cdc.gov/niosh-nil/index.asp>

To contribute go to: <http://www2a.cdc.gov/niosh-nil/contribute.asp>

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4 COST action 633: Particulate matter: Properties related to health effects – documentation available

Under COST 633 the “Workshop on Similarities and differences in airborne particulate matter, exposure and health effects over Europe” were held at Austrian Academy of Sciences, Vienna, Austria from April 3 to 5, 2006.

Final program:

http://www2.dmu.dk/atmosphericenvironment/COST633/Downloads/FinalProgrammeCOST633_V1_0602_02.pdf

A documentation is now available from:

http://www.iuta.de/Verfahrenstechnik/Cost/COST_Start.htm

Source: <http://COST633.dmu.dk>

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UFIPOLNET = Ultrafine particle size distributions in air pollution monitoring networks
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