

The German BITUMEN Forum - Co-operation in Partnership

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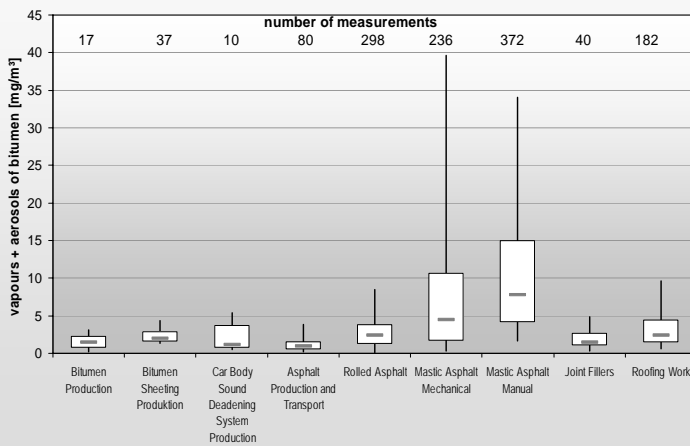
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The German Bitumen Forum was founded in 1997. All institutions, whose members are responsible for handling bitumen, are represented in the Forum.

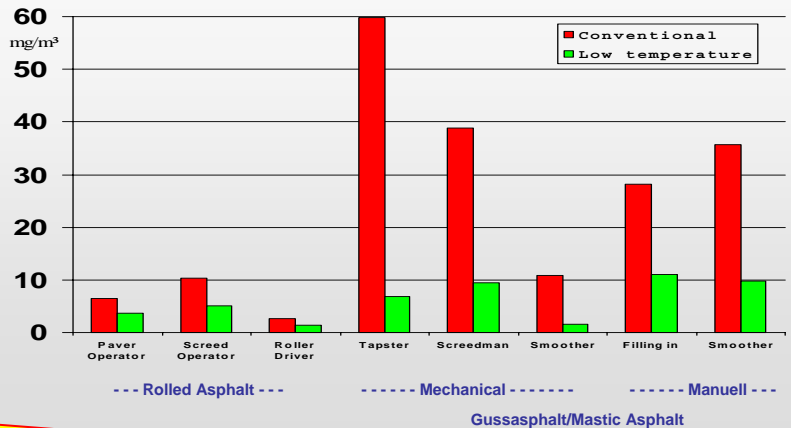
The Forum coordinates an extensive program, in order to create the best basis for the evaluation of possible health risks by bitumen (IARC-Monography Bitumen).



Measurements of Vapour and Aerosols of Bitumen



Promotion of 'Low Temperature Asphalt': Lower Exposures to Vapours and Aerosols of Bitumen



More Information
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... and many further studies:

- ▶ determination of the constituents of the different bitumen;
- ▶ supporting the German part of a European epidemiological study of the incidence of cancer in "bitumen workers";
- ▶ possible absorption through the skin of bituminous constituents when dealing with cold bituminous products;
- ▶ investigation of dermal absorption of certain constituents of vapours and aerosols released from hot bitumen;
- ▶ selective occupational health monitoring of all mastic asphalt workers in Germany;
- ▶ animal study on inhalation of vapours and aerosols of bitumen in order to determine possible carcinogenic effects.

Humanstudy Bitumen

Study Group

450 mastic and rolled asphalt workers as well as roofers
50% exposed < 10mg/m³ vapours and aerosols of bitumen; 50 % > 10 mg/m³

150 persons without exposure to vapours and aerosols of bitumen

The Humanstudy Bitumen started 2004 and will be finished in 2007

Collection of nasal lavage fluids (NALF) and induced sputum



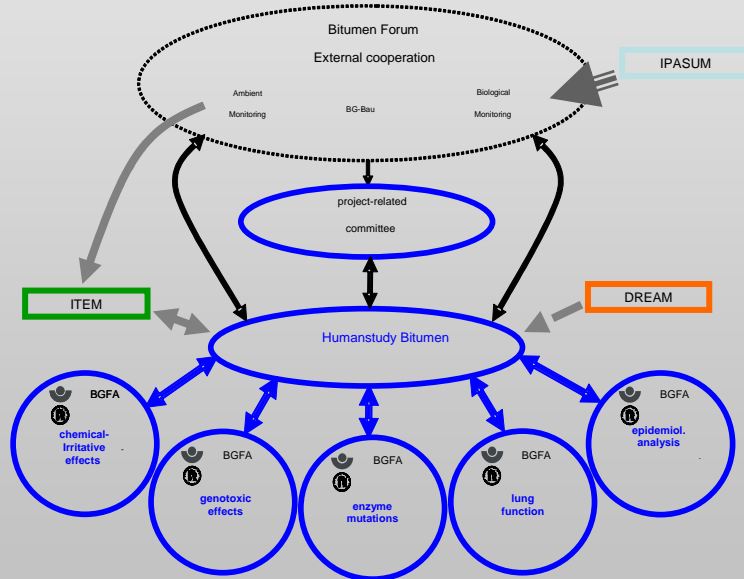
Analysis: cellular and humoral parameters (e.g. IL-8, IL-1b, TNF-a, IL-6, NO, albumin)



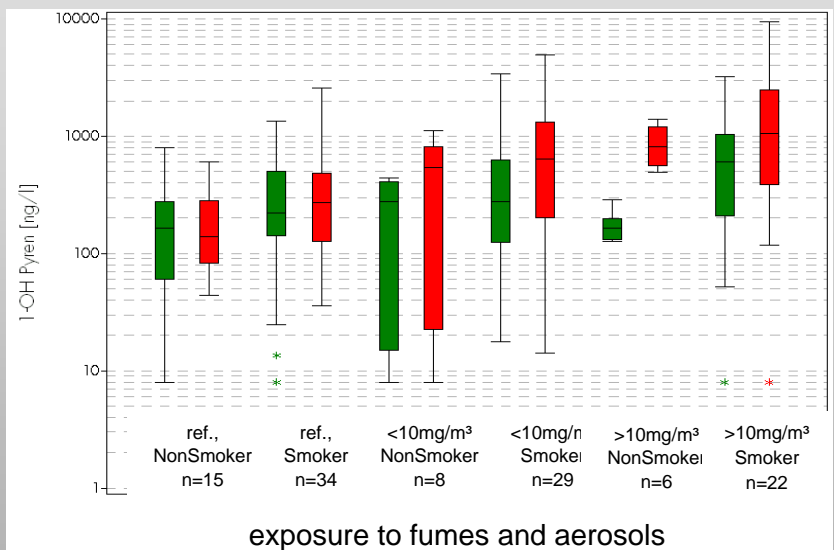
Spirometry

- forced expiratory volume in one second (FEV₁)
- forced vital capacity (FVC)

according to the guidelines of the ATS



Cross-sectional Cross-shift Design



1-OH-pyrene determination in urine depending on the exposure and the smoking status in cross-shift comparison (first results)