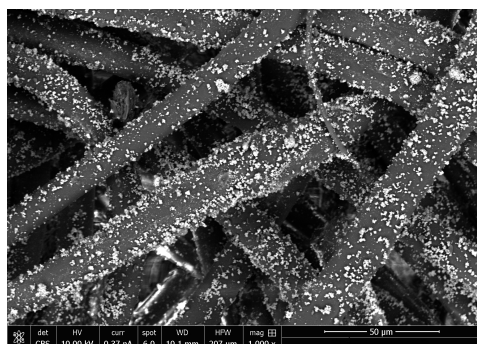


Clean Air Filters with Catalytic Properties

The aim of the project is to develop a new, low-pressure textile for industrial fine dust filters with permanently immobilized metallic and oxidic catalysts to reduce pollutants in technical plants, so that solid dusts are retained and additional pollutant components are quantitatively eliminated from the process exhaust air without negatively affecting the air permeability. Existing solutions for (downstream) exhaust air purification, on the other hand, are costly and often involve considerable conversion work and enormous space requirements. The combination of filtration and exhaust air purification envisaged here does not require any retrofitting and is energy-efficient due to the low backpressure aimed at and thus advantageous from an economic and ecological point of view. The new low-backpressure catalytic filters to be developed can therefore not only be used in the more than 6,000 German plants in the food processing industry, but also replace existing technologies, e.g. in the field of waste incineration. This would provide users with a simple and relatively inexpensive alternative to existing solutions, enabling economically viable compliance with future environmental regulations. In addition to the users mentioned above, a new market segment with new or improved products is opening up for the textile processing industry. At the same time, the project results can also be used by manufacturers of grinding plants or even catalysts, since they generate economically useful impulses for new or improved applications with simultaneously pronounced ecological characteristics. Overall, this would increase the performance and competitiveness of German SMEs. This can contribute to securing existing jobs in Germany in the long term or creating new ones.



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