

Process-integrated cognitive monitoring systems for continuous homogeneity inspection and reliable identification of defective products in the manufacturing of filter materials – ProFiGen

(Step 1: Feasibility)

The Corona crisis has revealed that filter materials used for the production of protective masks, filter mats and block filters require much faster and more efficient production in the future. Thus, it must not be accepted that impermissible quality deviations or inhomogeneities in the filter material remain undetected up to the final inspection of the finished product. It is crucial to identify them reliably as early as possible in the production chain in order to sort out defective areas of material. If applicable, defective material can be specifically reprocessed and then returned to production. This can be achieved by comprehensive sensor-based monitoring of the entire production chain. In particular, sensor-based methods for the determination of the tightness respective the filter effect of the material and its local fluctuations are in demand. This includes the detection of i.e. leakages.



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