



Diesel Soot Particles: A Morphological Study

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Fine soot particles in exhausts of diesel engines are, according to the actual knowledge, toxicologically dubious so that in the European Community the highest limit for the particle emission in the legal norm for engine-exhaust will be drastically decreased in the next few years. This initiates a large number of efforts to optimise the combustion processes in diesel engines, to develop more efficient catalysts, to oxidise soot particles through NO₂ and so on. To this cause we investigate soot particles of EURO IV and EURO V of diesel engines. The main interests are focused on the microstructure, size-distribution and morphology, electronic state of the particle agglomerates and the surface functional groups. Results from TEM, HRTEM, EELS, EDS, XPS, UV/VIS will be presented.