



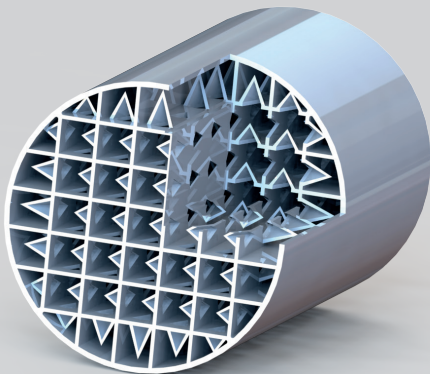
MICROREACTOR STRUCTURE



CHEMICAL ENGINEERING

Best Practice Example created by





Honeycomb structures are used for catalytic converters, but the majority of the fluid is not in contact with the walls and thus the catalytic active material. The cutouts and flow guiding elements (spoilers) in the new structure lead to a deflection of the fluid in the individual channels and therefore to an increased wall contact. Hence, the productivity and efficiency is increased so that the same conversion can be realized in a smaller volume, which leads subsequently to a miniaturization of these converters.

Dipl.-Ing. Uwe Scheithauer:

"Novel functionally optimized design is needed for the further miniaturization of chemical engineering components, but these designs cannot be produced by conventional methods. This gap is closed by the LCM-technology as an Additive Manufacturing technology for high-performance ceramic components."