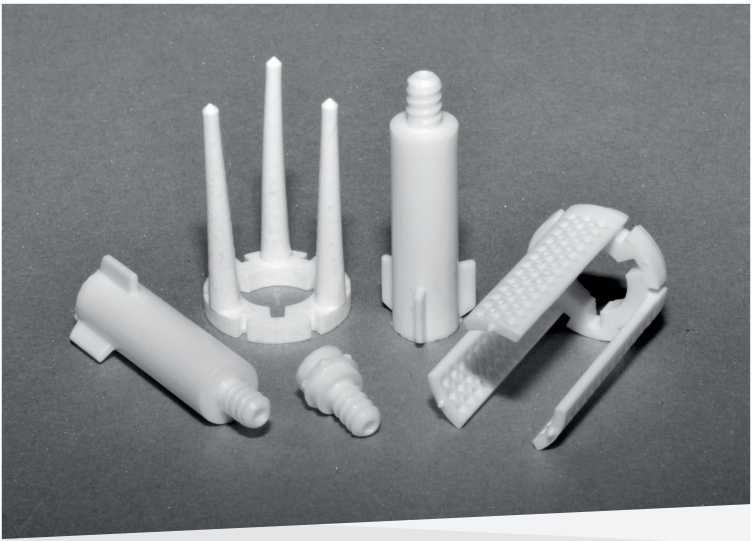

MILLI-EXTRACTION COLUMN FOR LIQUID-LIQUID PHASE SEPARATION

—

CHEMICAL PROCESS ENGINEERING

Best Practice Example created by

LAPP INSULATORS ALUMINA

technische universität dortmund
Fakultät Bio- und Chemieingenieurwesen
arbeitsgruppe apparatedesign

Additive Manufacturing has a high potential in chemical process engineering because the components are getting smaller and more complex. Additionally, they are optimized for the specific application. Especially for the efficient extraction of a material from a solvent, Additive Manufacturing can be used to develop different designs of milli-extraction columns for liquid-liquid phase separation.

Dr.-Ing. Kai Sauerzapfe:
"The LCM-technology supported us in changing the material for some reactors in the chemical process engineering from stainless steel to ceramics. It was very easy to make first demonstrations and show the advantages of ceramic materials. Due to the chemical and thermal stability of alumina, new materials can be processed and higher process temperatures can be reached."

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