

pades | project 1

Adsorbens for separation of substances

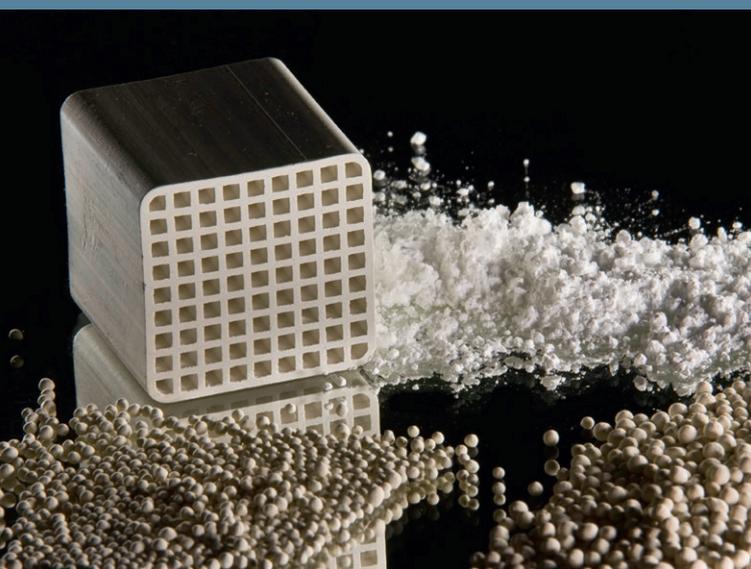
For the development of a sustainable and resource-conserving production the improvement of the selectivity of separation and reaction processes is of very high importance. One of the key tools are high selective materials like molecular sieves, especially zeolites.

Pades offers zeolite high-performance molecular sieves of significant improved performance in comparison to classical products. This is achieved by new technologies and processes of very mild conditions preventing a damage of the zeolite structure normally occur during classical processes of activation / dewatering.

Our custom-specific functionalization and surface modification in addition improves the performance and opens new applications.

So for example our surface modified zeolite particles can be used for the first time for high selective membranes for pervaporation and gas separation because zeolite particles can be seamless and in high concentrations introduced in thin polymeric matrix foils.

In formed zeolite bodies for adsorption processes like beads used as dump materials and compact bodies like honeycombs, multichannel tubes or cylinders a system of transport pores of very high porosity is generated and can be varied by the special production process. This transport pore system allows a fast absorption kinetic in practical application.



Our offer:

- Zeolite materials of custom-specific functionalization and surface modification
- Binder containing and binderless zeolite beads with a bead size distribution between 0.3 and 5 mm and compact binderless formed zeolite bodies like honeycombs and multichannel tubes
- Innovative technologies for the production and processing of zeolite material



pades | project partner

Innovation alliance adsorbens

Customer specific zeolite molecular sieves for high performance applications made as powders, beads or compact shaped bodies (honeycombs, multichannel tubes etc.) and technologies for production and processing are offered by the following partners of the alliance:

Chemiewerk Bad Köstritz GmbH (CWK) offers global costumers high selective zeolite molecular sieves for separation, purification and gas drying as well as thermo-chemical energy storage. Zeolite powder and moldings for numerous applications are synthesized based on many years of expertise.

Glatt Ingenieurtechnik GmbH is a market leader in life science systems for the production, the refinement and processing of powders. Glatt core activities are the development of perfect technological processes for the manufacture of beads and pellets from powders and liquids

IBU-tec advanced materials AG offers independent solutions, services, consulting and engineering in every aspect of materials research, product development and contract manufacturing. IBU-tec supply with two established and flexible technology platforms for this purpose: our rotary kilns and pulsation reactors.

Fraunhofer Institute for Ceramic Technologies and Systems (IKTS) is as research and technology service provider developing ultramodern high-performance materials, industrially relevant manufacturing processes, prototype components and systems in complete production lines including pilotscale production.



Learn about our services and secure a reliable supply source for materials exactly tailored to your application. Gain a competitive advantage through extraordinary functionality.

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