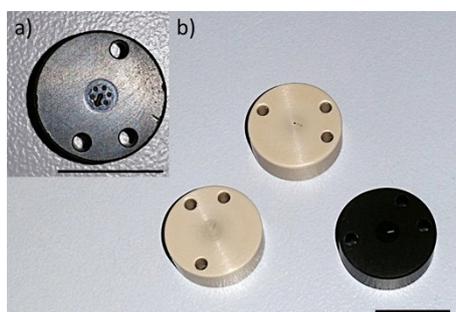


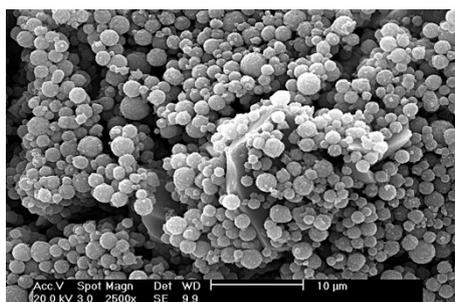
Supplement

1 Tailor-made PEEK valve rotor seals



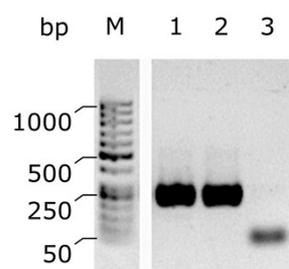
Images of the rotor seals installed inside the multiposition valves of the reactor device. **a)** Picture of a damaged polyimidic rotor seal due to long-term alkali exposure. **b)** Image of the manufactured PEEK rotor seals (in yellow) as well as an undamaged polyimidic seal (in black) – scale bar is 10 mm.

2 Electron microscopy image of the prepared particle suspension mixture



Electron microscopy image of the prepared particle suspension mixture consisting of M-PVA particles and 30 % (w/w) admixed strontium ferrite particles (surface weighted mean particle diameters: M-PVA $2.3 \pm 1.7 \mu\text{m}$; Strontium ferrite particles $22.5 \pm 14. \mu\text{m}$).

3 Replication of GAPDH PCR and subsequent agarose gel electrophoresis



Gel electrophoresis after double replication of a GAPDH PCR conducted with the same reactor device purified DNA template as used in Fig 4d lane 2. Here, lanes 1 and 2 each were loaded with 5 μl of PCR product, lane 3 was loaded with the same amount and shows the result of a negative control (PCR grade water as template).