

Fig. S1 SEM image of a porous catalyst support (ISOLITE[®]). This material is composed of 40% Al₂O₃ and 55% SiO₂ with traces of the other metal oxides, and the porosity is approximately 71%. The scale of the bulk pores was between 100 and 300 µm, while smaller scale pores were a few microns.

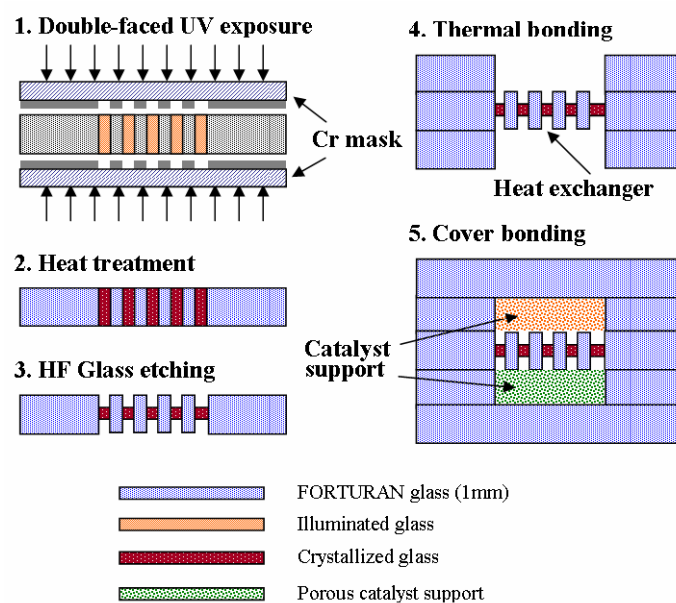


Fig. S2 Overall fabrication procedure of the methanol steam reformer. The fabrication process consists of UV exposure, heat treatment, HF etching, catalyst insertion, and fusion-bonding.

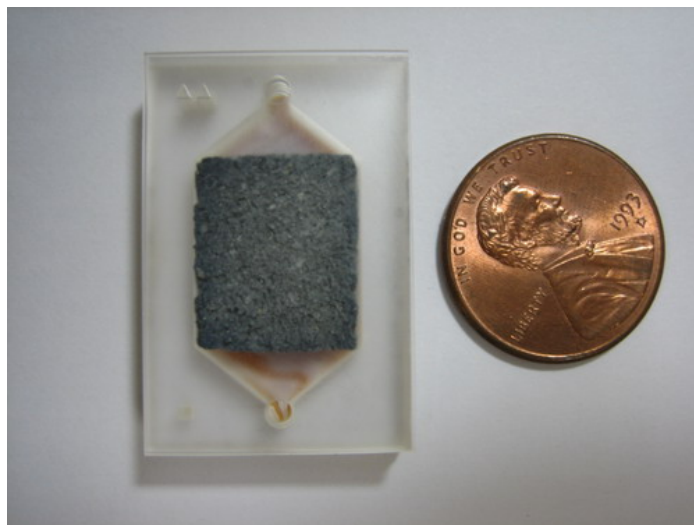


Fig. S3 The complete reformer system that is constructed by fusion-bonding the fabricated glass layers. The best fusion-bonding between glass wafers was obtained by pressing the wafers against each other at 1000 N/m^2 in a furnace held at $500 \text{ }^\circ\text{C}$.

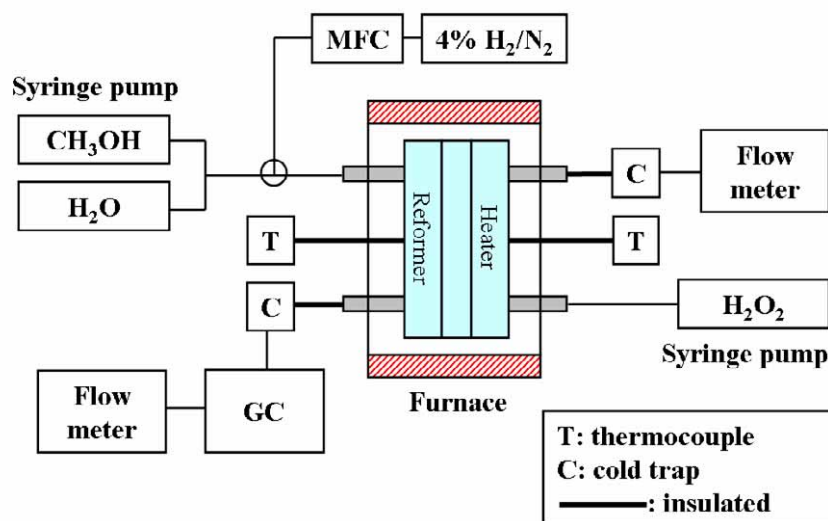


Fig. S4 Experimental setup for testing of the methanol steam reformer. The setup consists of two syringe pumps, two thermocouples, furnace, flow meter, and gas chromatography.