

## Supplementary Materials

**Title:** An experimental study of zeolite membrane reactor for reverse water gas shift

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Figure S1 shows the photographs of catalysts.

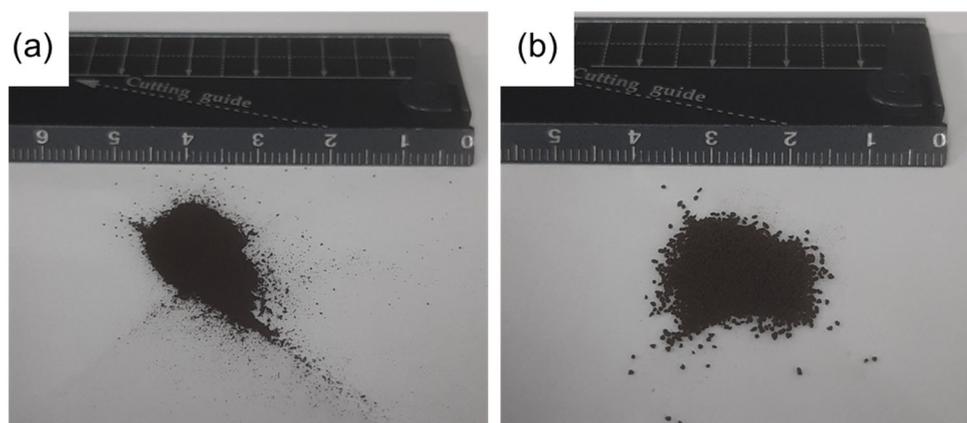


Figure S1 The photographs of catalysts. (a) as-made; (b) after granulation

Figure S2 shows the exit gas compositions of each reactor.

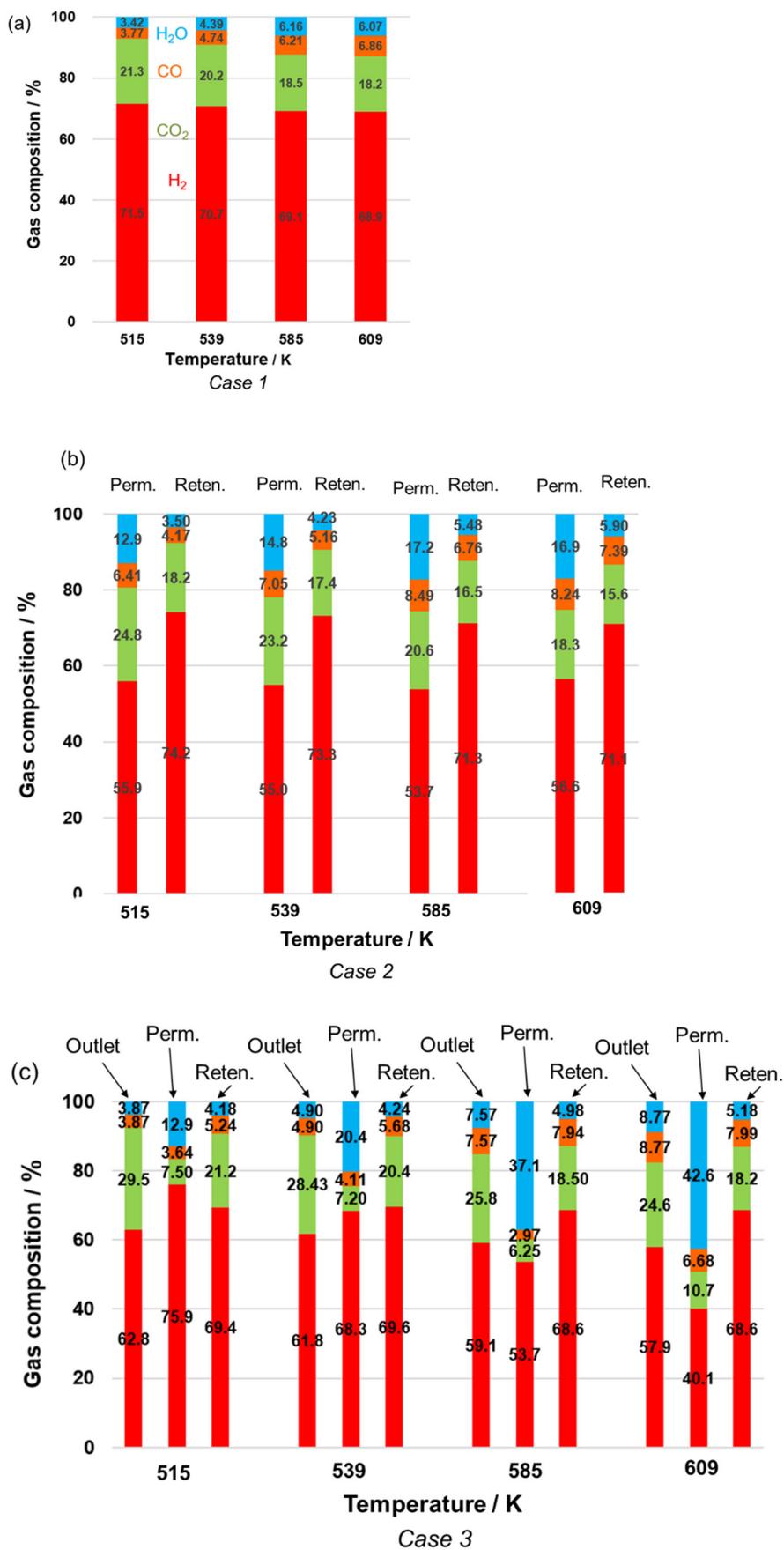


Figure S2 The exit gas compositions of each reactor. (a) Case 1; (b) Case 2; (c) Case 3.

Fig. S3 shows the time course of CO yield in *Case 3*. The CO yield was stable at each temperature at least during the test, 12 h.

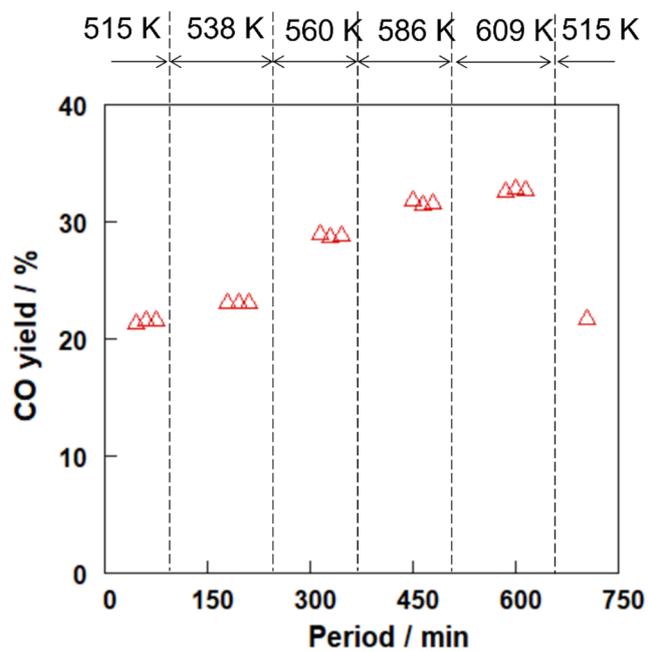


Figure S3 The time course of CO yield in *Case 3*.