Electronic Supplementary Material (ESI) for RSC Advances.

The structured catalyst with high dispersity of Au species based on hollow SiC foam with porous wall for acetylene hydrochlorination

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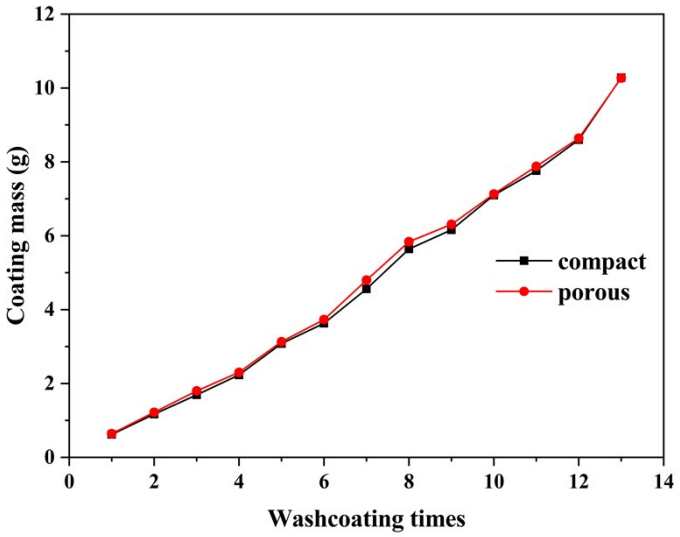

Fig. S1 Relation between coating mass and washcoating times.

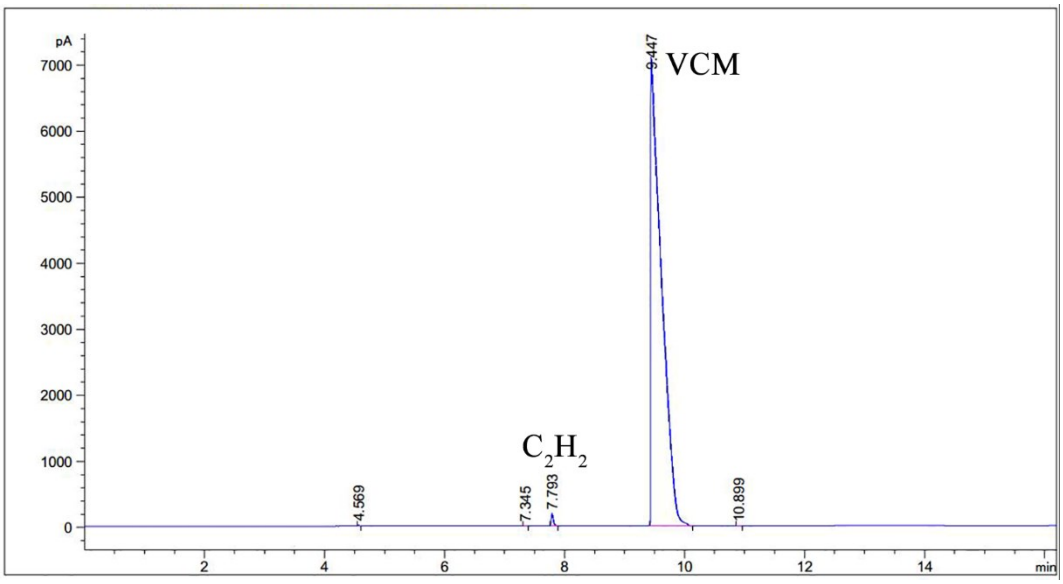

Fig. S2 Gas chromatogram spectrum of the products.

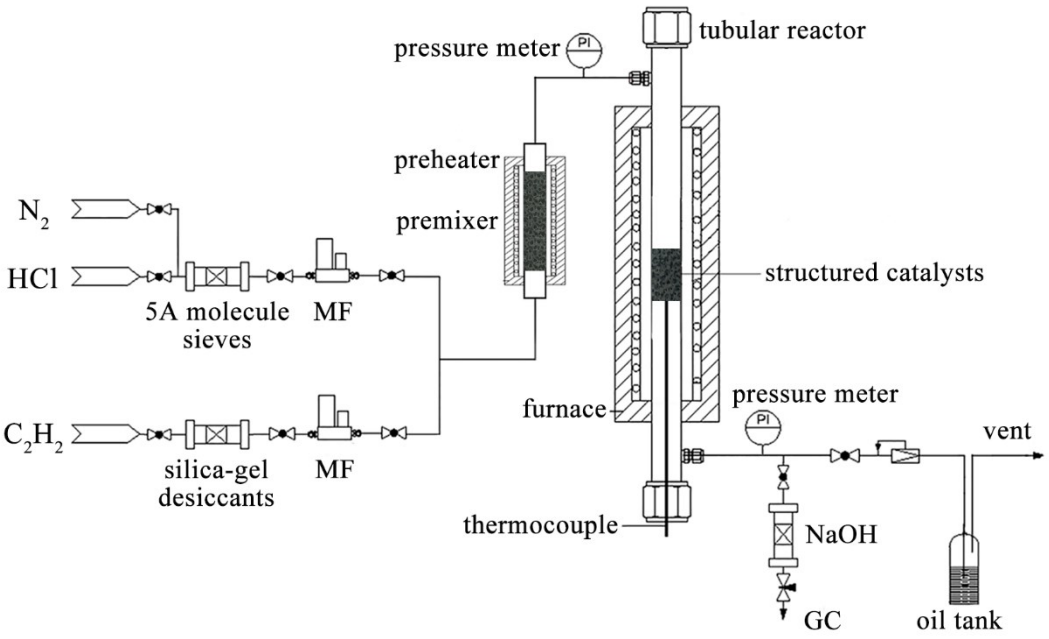

Fig. S3 Schematic diagram of experimental setup.

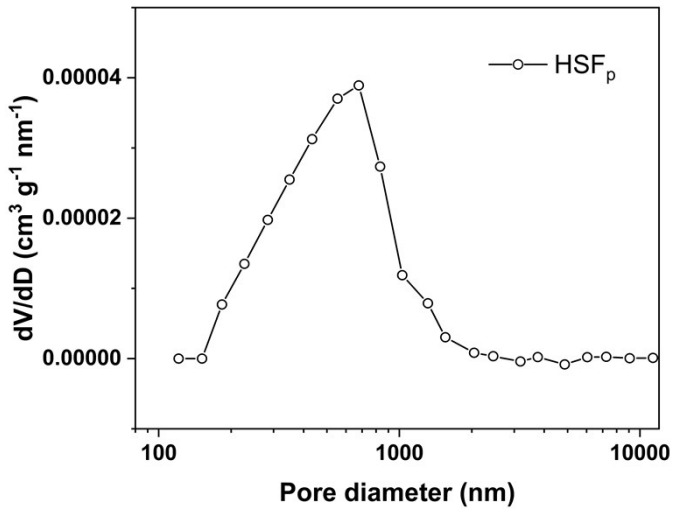

Fig. S4 The pore size distribution of HSF_p obtained by mercury intrusion porosimetry.

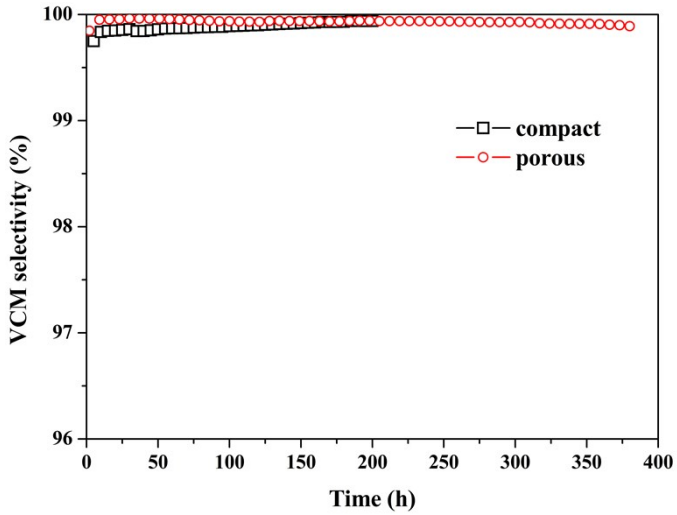

Fig. S5 VCM selectivity of structured catalysts with different structured support as a function of reaction time.

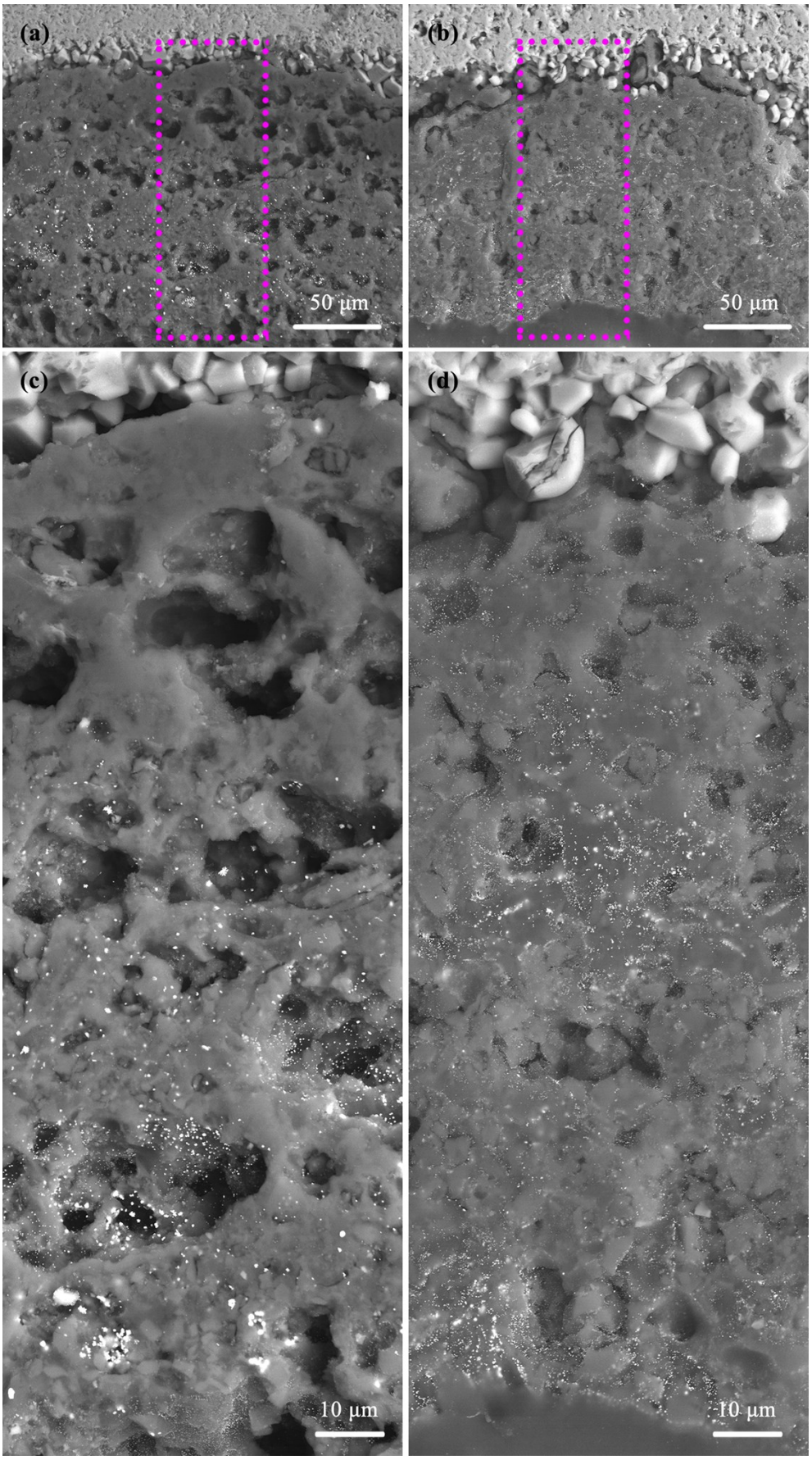

Fig. S6 BSE images of used Au/AC/SHF. (a) compact, (b) porous and (c, d) magnified of (a, b)

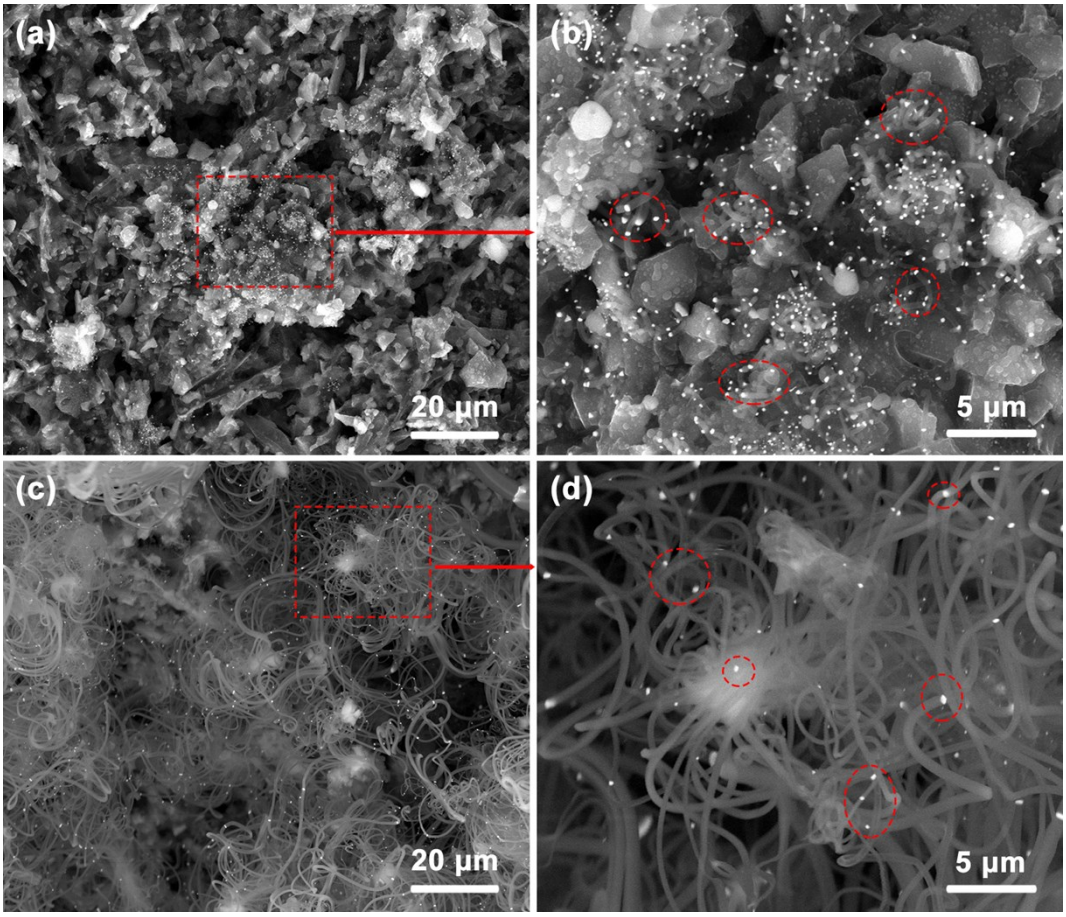

Fig. S7 SEM images of the surface of used Au/AC/HSF structured catalysts. (a-b) compact and (c-d) porous.

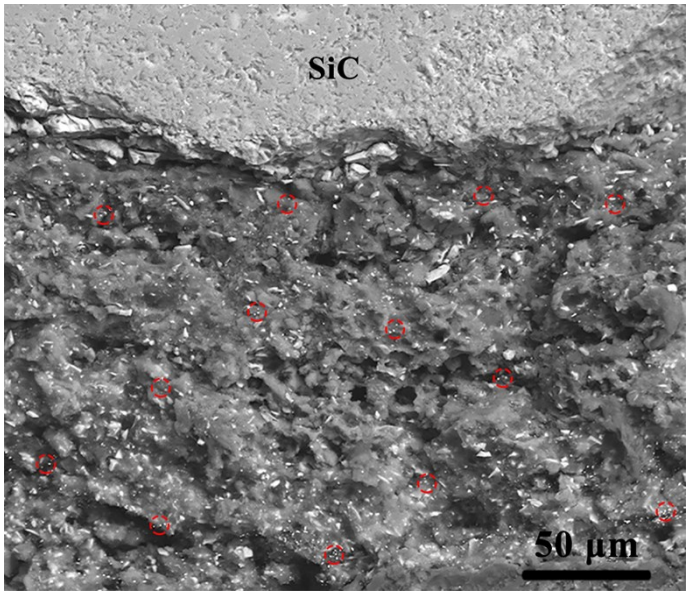

Fig. S8 BSE image of the cross-section of the used Au/AC/HSF_c structured catalyst prepared by the freeze-drying method.

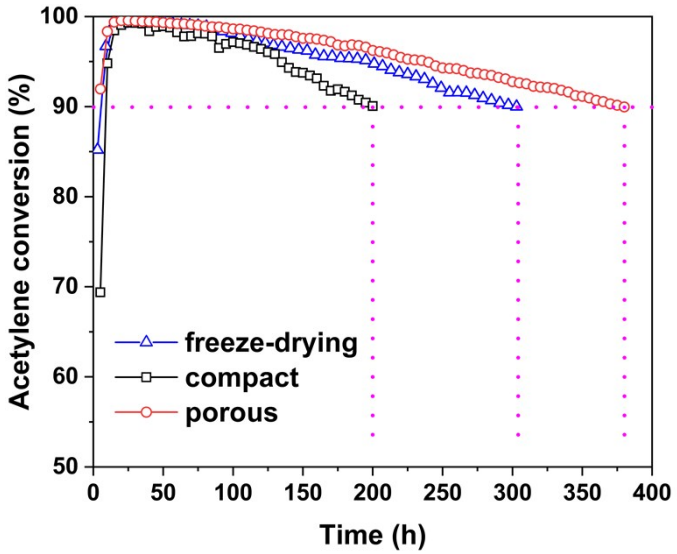

Fig. S9 Acetylene conversion of different structured catalysts as a function of reaction time. Reaction conditions: T = 170 °C, GHSV(C_2H_2) = 130 h^{-1} and HCl/C_2H_2 = 1.1.