

SUPPLEMENTARY INFORMATION

One-pot synthesized MoC imbedded in ordered mesoporous carbon as a catalyst for N₂H₄ decomposition

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Table S1 Physical properties of the three samples.

| Sample | Mo content ^a (Wt %) | S_{BET} ^b (m ² /g) | V_{M} ^c (cm ³ /g) | V_{T} ^d (cm ³ /g) | D_{p} ^e (nm) |
|-----------------------|-----------------------------------|--|---|---|-------------------------------------|
| OMC | 0 | 758 | 0.15 | 0.86 | 5.5 |
| MoC-OMC | 4.0 | 700 | 0.14 | 0.86 | 6.5 |
| Mo ₂ C/OMC | 3.9 | 707 | 0.15 | 0.78 | 5.6 |

^a Mo content was determined by ICP. ^b Brunauer-Emmet-Teller (BET) surface area. ^c Micropore volume determined by t-plot. ^d Total pore volume calculated as the amount of nitrogen adsorbed at a relative pressure of 0.99. ^e pore diameter calculated by the Barrett-Joyner-Halenda (BJH) method using desorption branches.

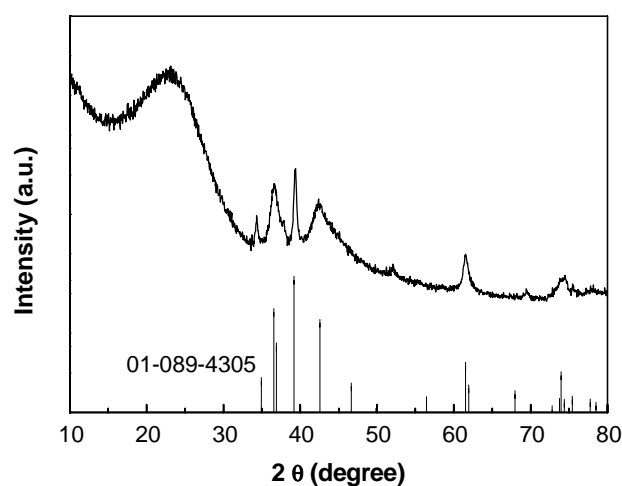


Fig.S1

Fig. S1 XRD pattern of the MoC-OMC obtained by adding 0.4 g (NH₄)₆Mo₇O₂₄·4H₂O to the reaction system.

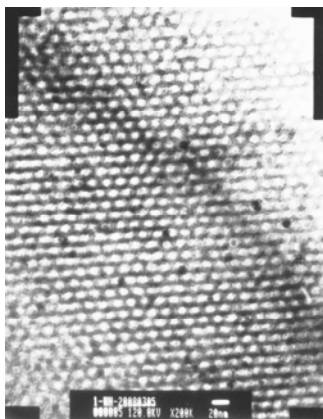


Fig.S2

Fig. S2 TEM image of the MoC-OMC viewed along [001] orientation

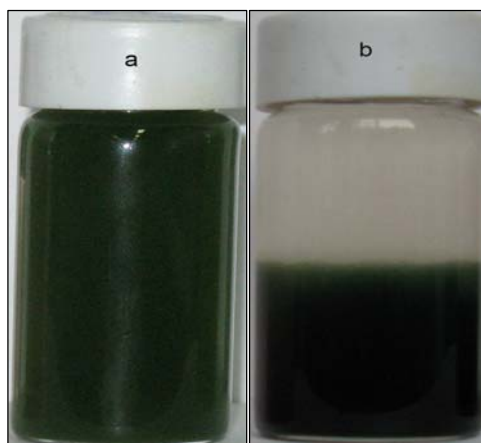


Fig.S3

Fig. S3 photographs of the reaction system (a) at the beginning of the polymerization;
(b) after standing at RT for 24 h.