Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

Table S1 Reagents [a] and their source.

Reagents	Supplier
Sodium aluminate ($Al_2O_3 \geq 41$wt. %)	Sinopharm Chemical Reagent Co., Ltd.
Sodium hydroxide (NaOH ≥ 98 wt.%)	Tianjin Kaixin Chemical Industry Co., Ltd.
Tetrapropylammonium hydroxide (TPAOH, 25 wt.%)	Zhejiang Kente Catalysts Company Inc.
Fumed silica (SiO_2 > 99 wt.%)	Shenyang Chemical Reagent Co., Ltd.
Methanol	Tianjin Kemiou Chemical Reagent Co., Ltd.
Tetraethyl orthosilicate (TEOS ≥ 98 wt.%)	
Sodium metasilicate nonahydrate ($Na_2SiO_3 \cdot 9H_2O$)	Tianjin Guangfu Chemical Reagent Co., Ltd.
Tetrapropylammonium bromide (TPABr, 98%)	
Ammonium chloride (NH_4Cl)	
Boehmite ($Al_2O_3 \geq 70$ wt.%)	

[a] All of them were used without purification.

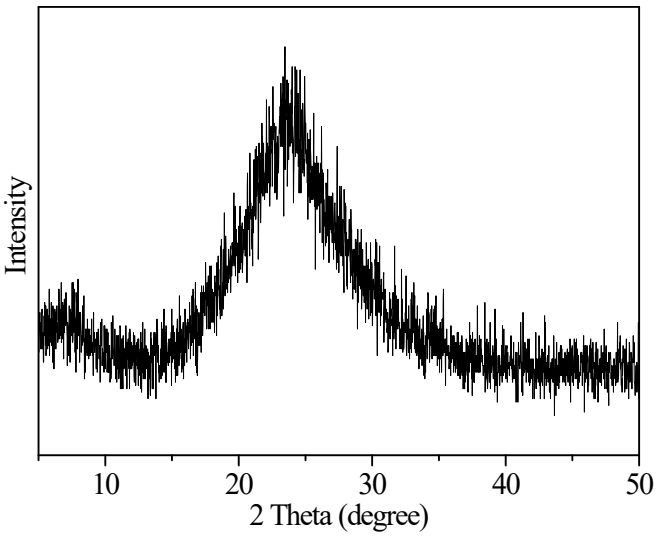

Fig. S1 XRD pattern of the sample obtained by crystallizing the mixture 20 SiO_2: 16 $Na_2SiO_3 \cdot 9H_2O$: 1.0 boehmite: 3.1 TPABr: 25.5 NH_4Cl at 90 °C for 72 h.

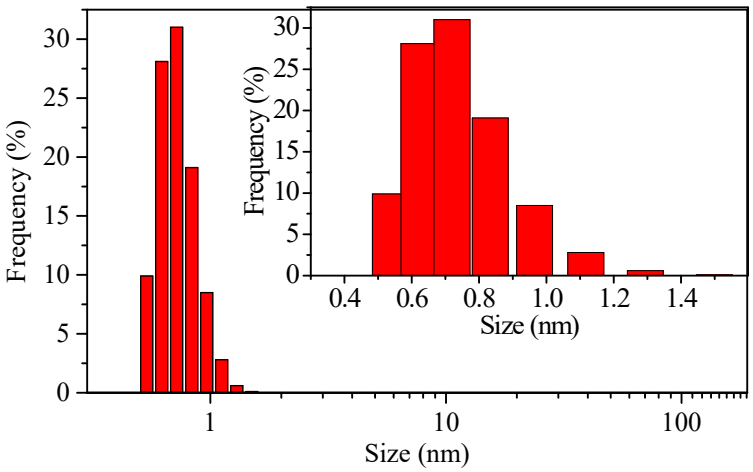

Fig. S2 The particle size distribution of liquid seed detected by DLS in logarithmic coordinate or uniform coordinate (insert).

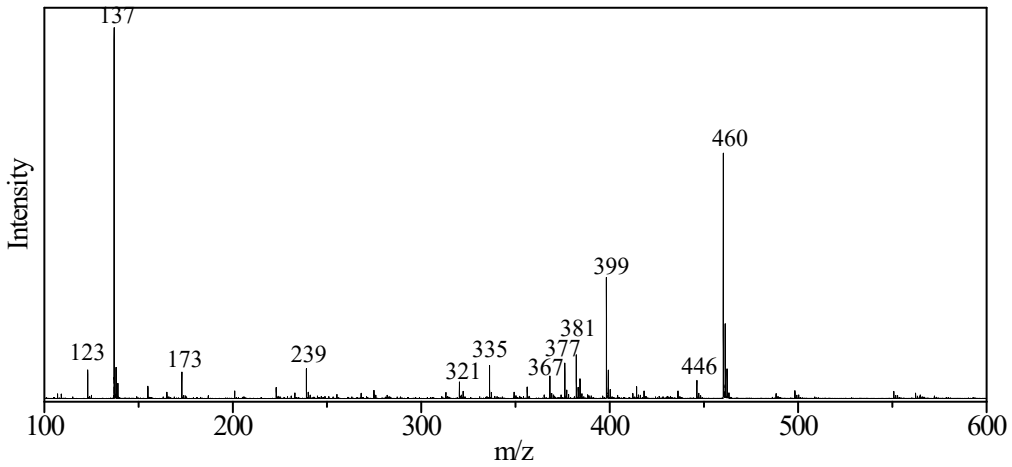

Fig. S3 ESI-MS spectrum of the liquid seed.

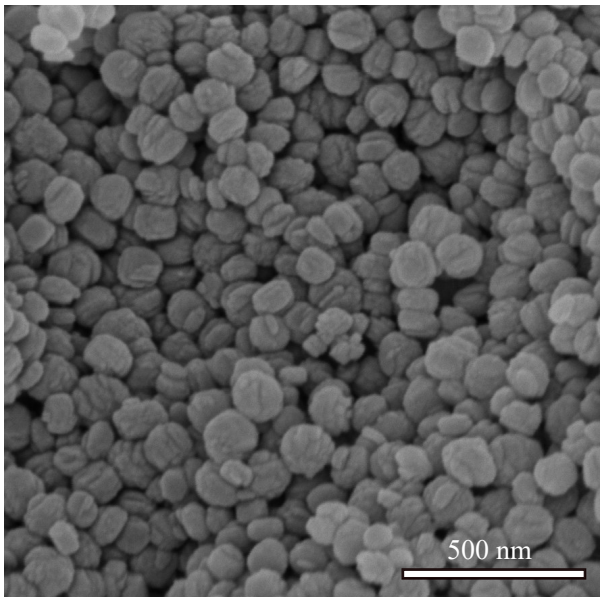

Fig. S4 SEM image of the S-1 crystals used as solid seed.

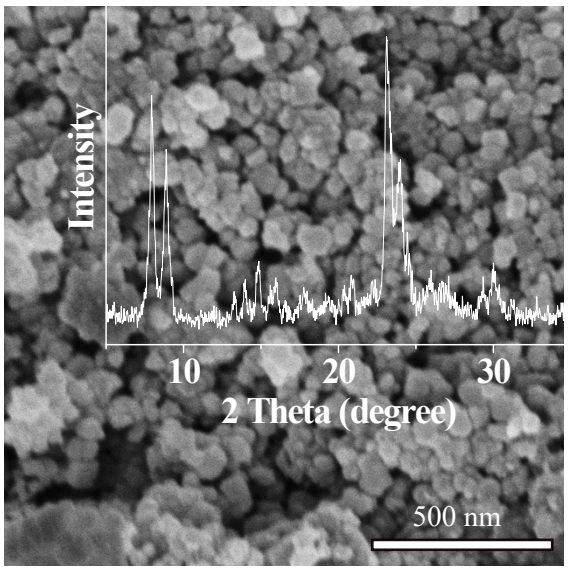

Fig. S5 XRD pattern and the crystal SEM image of the Z4-48-36.

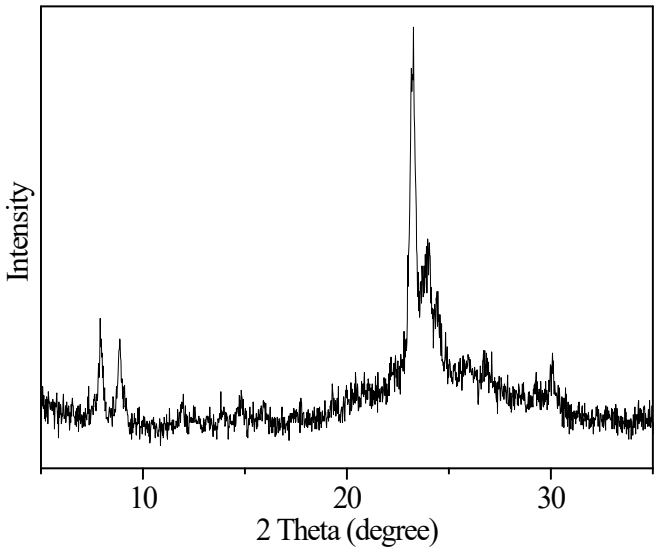

Fig. S6 XRD pattern of the Z1-120-28.