

Electronic Supplementary Information (ESI) for New Journal of Chemistry

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Highly ordered mesoporous Cd_xZn_{1-x}Se ternary compound semiconductors with controlled band gap energies

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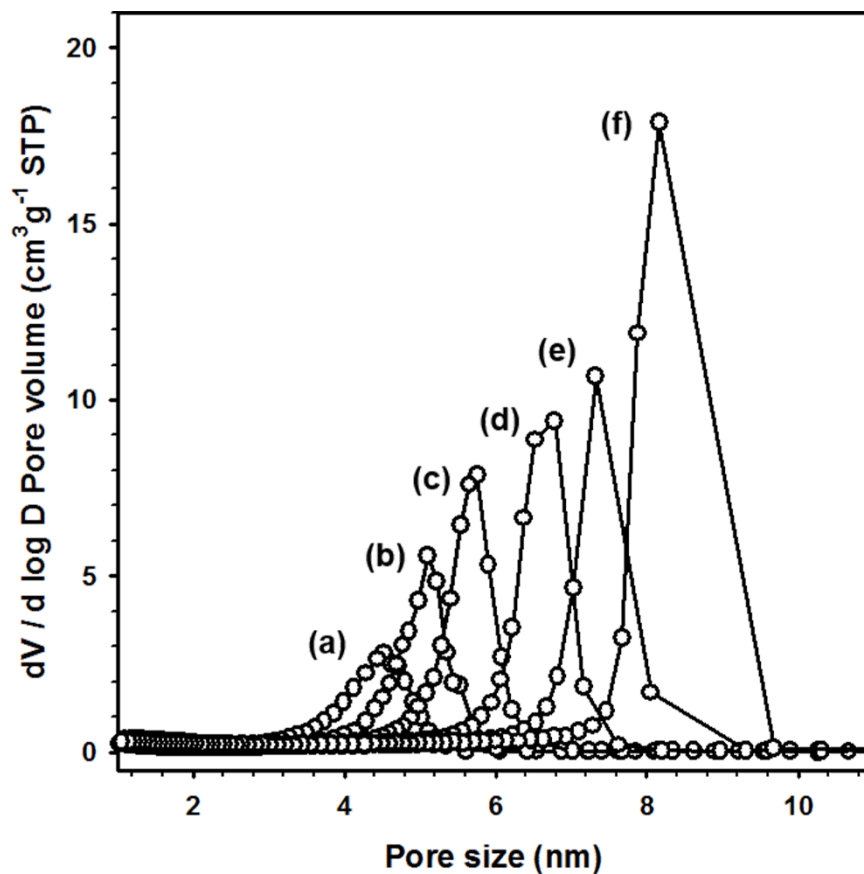


Figure S1. BJH pore size distributions of the KIT-6-*t* silica templates where hydrothermal temperature *t* is equal to (a) 40 °C ($D_p = 4.5$ nm), (b) 60 °C (5.1nm), (c) 80 °C (5.8 nm), (d) 100 °C (6.8 nm), (e) 120 °C (7.3 nm), and (f) 140 °C (8.2 nm), respectively.

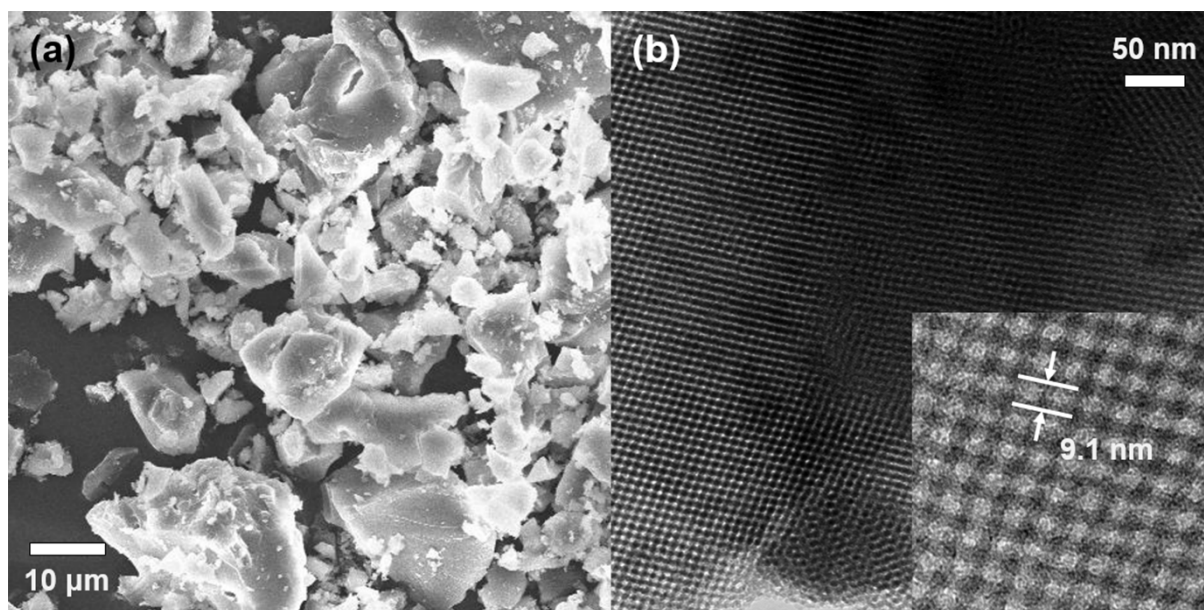


Figure S2. (a) SEM and (b) TEM images of the KIT-6-100 sample.

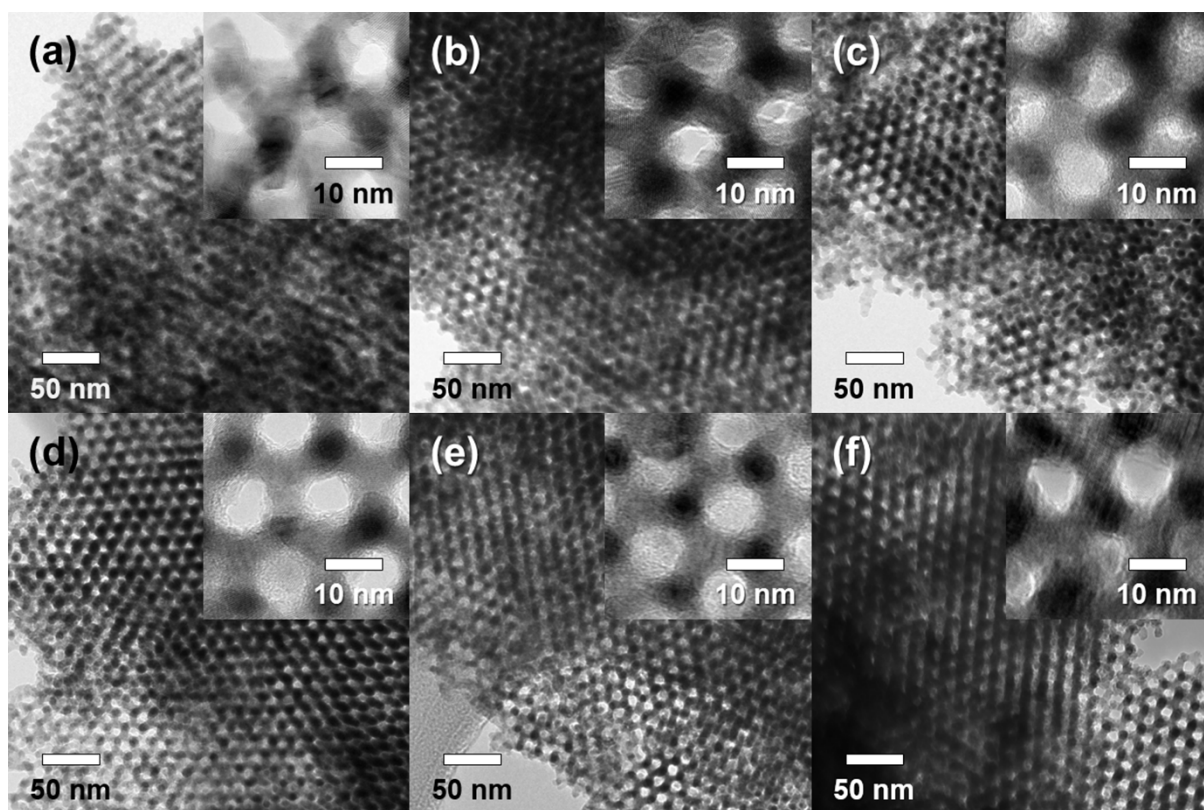


Figure S3. TEM images of the ordered mesoporous CZS-100- x materials where x is equal to (a) 1.0 (CdSe), (b) 0.9, (c) 0.7, (d) 0.3, (e) 0.1, and (f) 0.0 (ZnSe), respectively. Insets are the HR-TEM images.

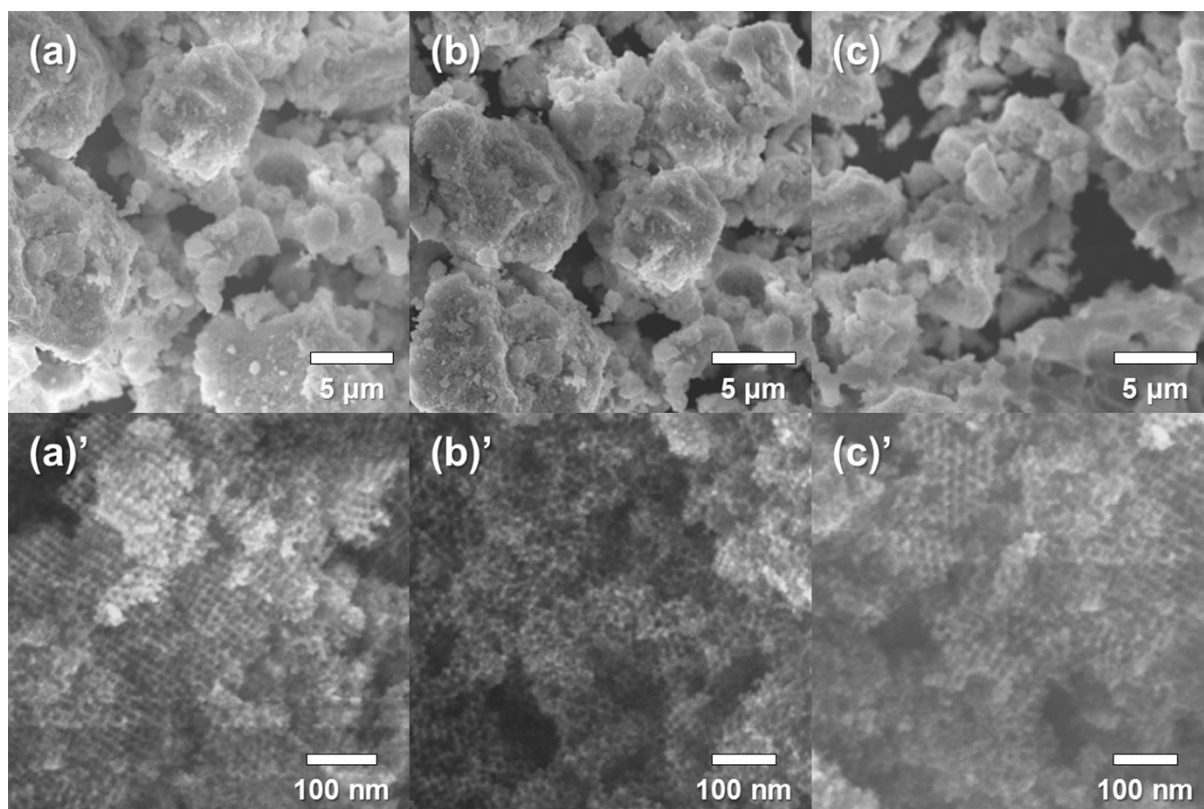


Figure S4. Low (upper) and high (lower) magnification SEM images of the replicated template-free mesoporous CZS-100- x materials where x is equal to (a) 1.0 (CdSe), (b) 0.5, and (c) 0.0 (ZnSe), respectively.