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Supporting information

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Formation of superconducting yttrium barium copper oxide using sulphur-containing templates

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SI Figure S1. The major phases present in the high-ratio sample with indexed selected area electron diffraction and EDXA, along with the corresponding TEM micrograph. a)-c) $BaSO_4$; d)-f) $Y_2Cu_2O_5$; and g)-i) CuO.



SI Figure S2. Temperature study of the phases formed in high-ratio samples. Phases are marked as $BaCuO_2(\bullet)$, $BaSO_4(\circ)$, $CuO(\Box)$, $BaCO_3(\downarrow)$ and $Ba(NO_3)_2(+)$.



SI Figure S3. a) TEM micrograph with corresponding indexed selected area electron diffraction, (b), and EDXA, (c), of the Y123 phase present in the low-ratio sample, showing the Y123 phase.



SI Figure S4. The major phases present in the control sample: TEM micrographs and corresponding indexed selected area electron diffraction and EDXA. a)-c) BaCuO₂; d)-f) Y₂BaCuO₅; and g)-i) YBa₂Cu₃O_{6.9}.



SI Figure S5. a) TEM micrograph with corresponding indexed selected area electron diffraction, (b), and EDXA, (c), of the Y123 phase present in the MRCP-templated sample, showing the Y123 phase.