

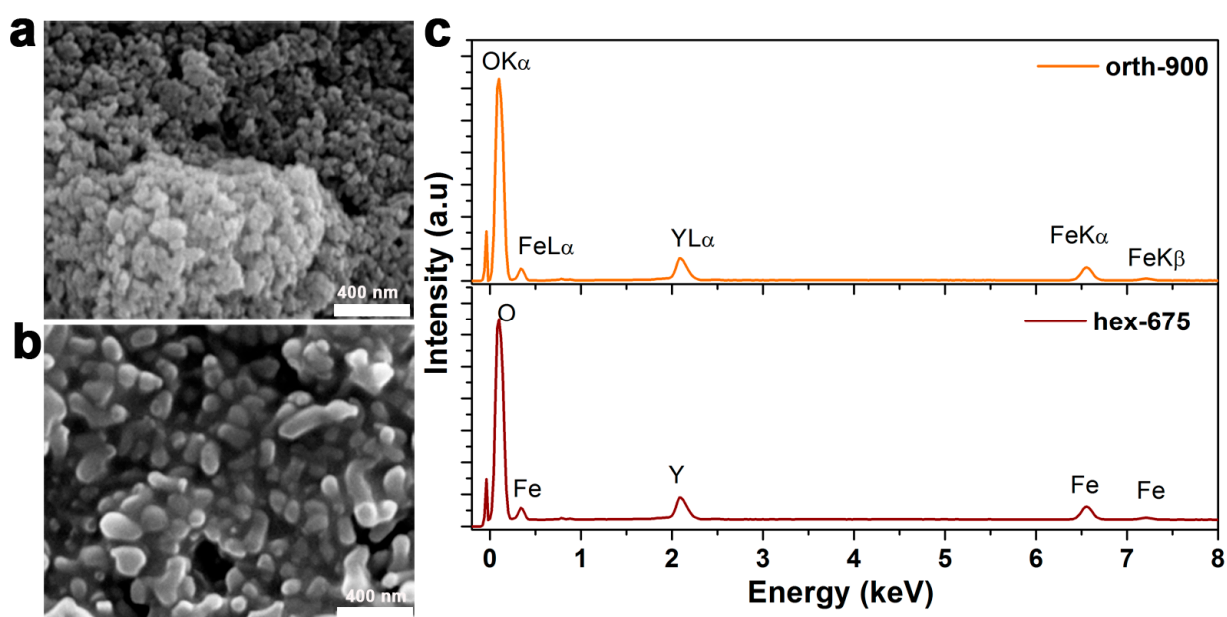
# Synthesis of Phase Pure Hexagonal YFeO<sub>3</sub> Perovskite as Efficient Visible Light Active Photocatalyst

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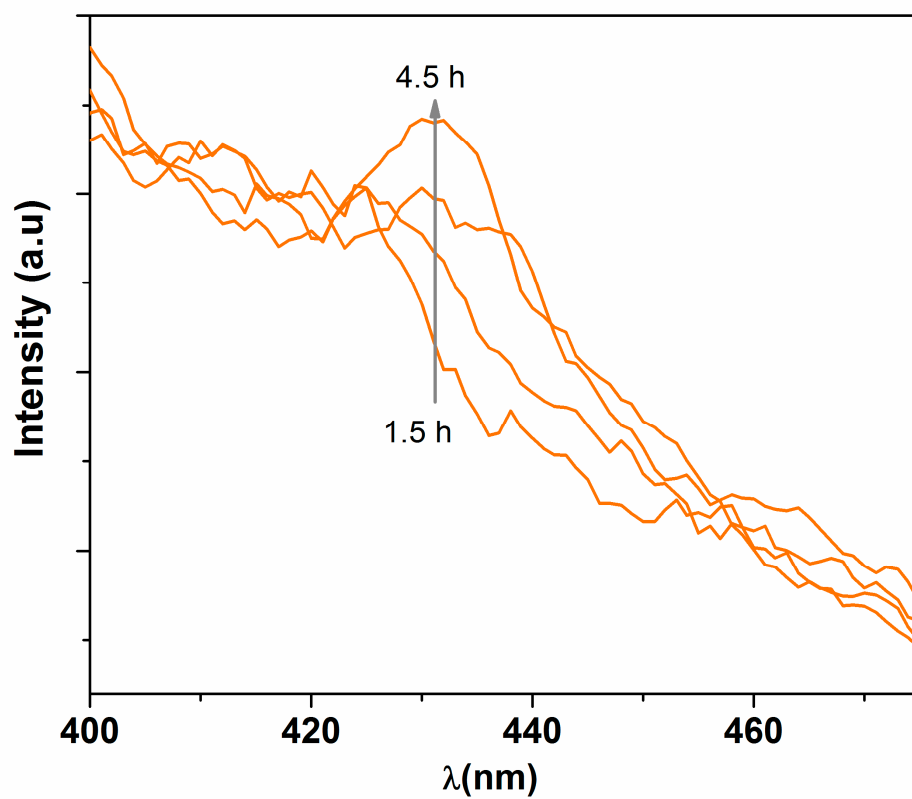
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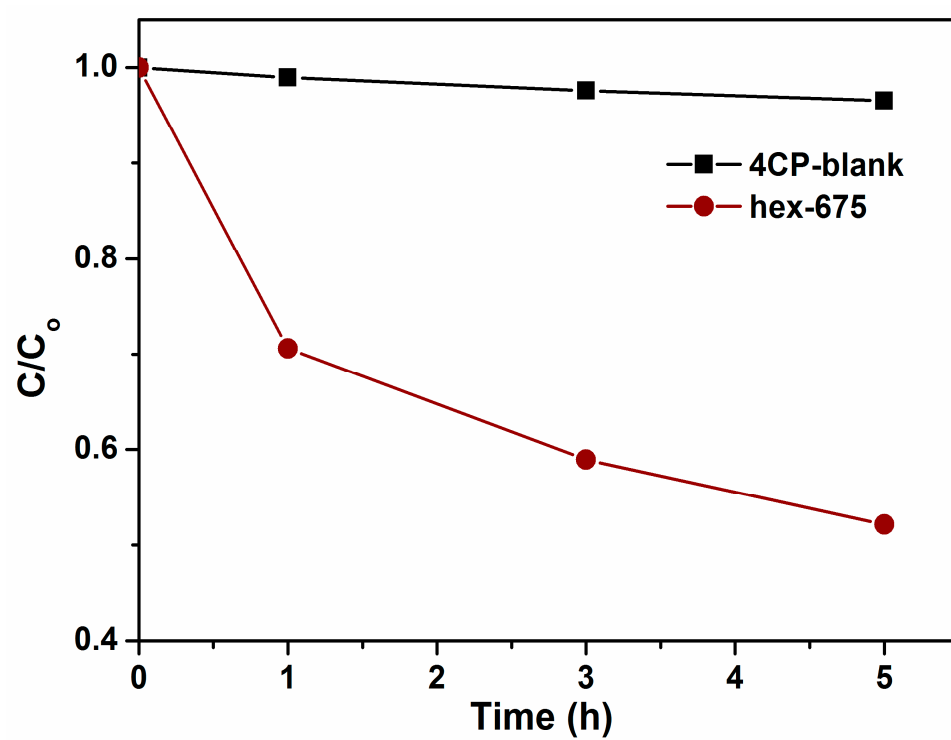
## Supporting Information (SI):



**Figure S1.** SEM micrographs of (a) hex-675 and (b) orth-900. (c) The EDXS analysis showing the elemental composition.



**Figure S2.** Fluorescence spectral changes observed during visible light illumination of hex-675 sample in terephthalic acid (TA) solution (3 mM TA /10 mM NaOH, excitation at 320 nm). The spectra were recorded at intervals of 1.5 h.



**Figure S3.** Photocatalytic degradation curves for 4-CP ( $1 \times 10^{-3}$  M) using hex-675. Light source: 150 W Xe arc lamp with cut-off filter  $\lambda > 420$  nm.