

## Photocatalytic activity comparison of $\text{ZrO}_2$ composite with graphitic carbon nitride for hydrogen production under visible light

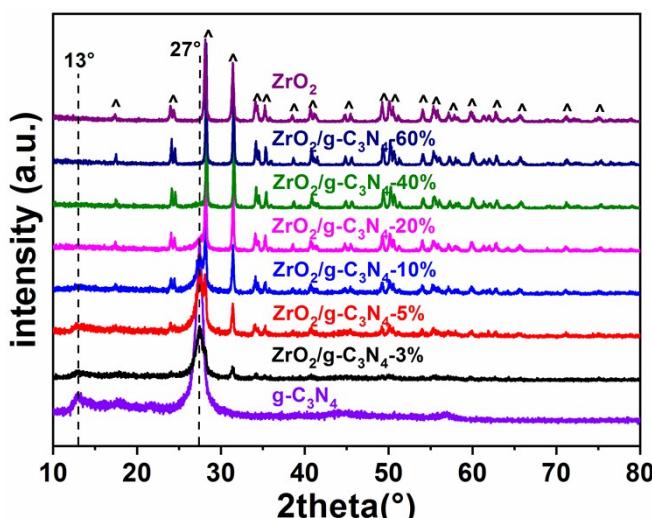
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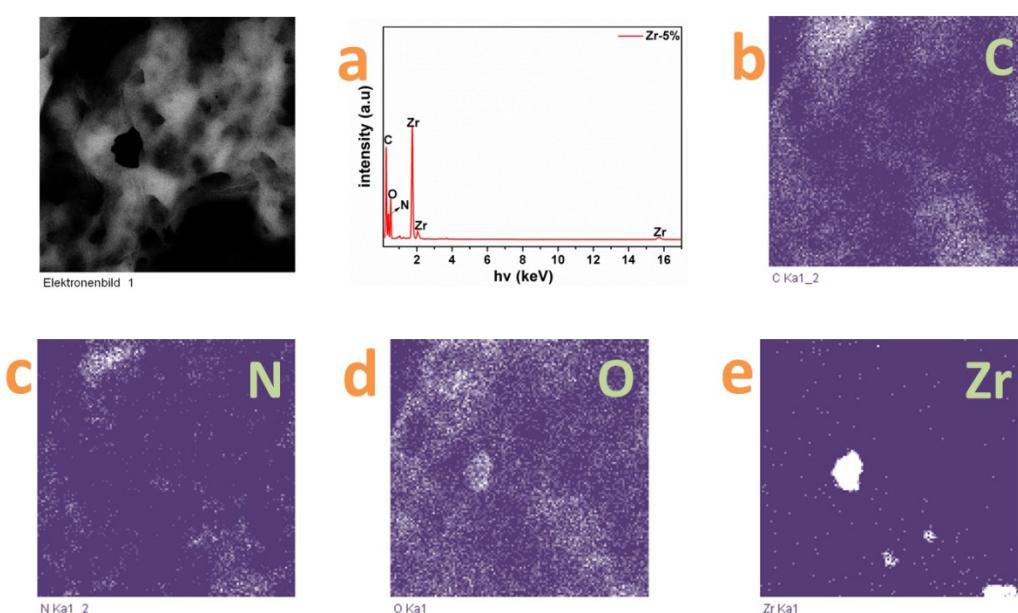
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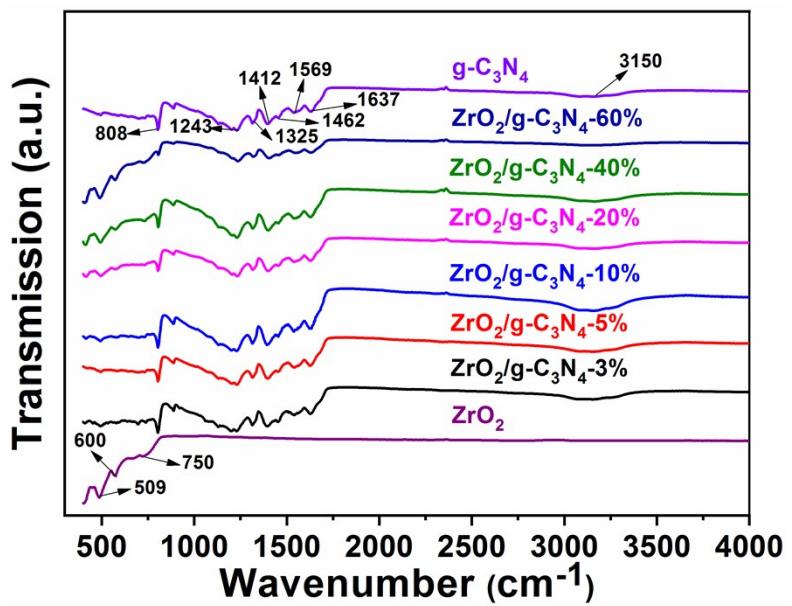
### Supporting Information (SI):



**Figure S1:** The powder XRD patterns of  $\text{g-C}_3\text{N}_4$ ,  $\text{ZrO}_2$  and  $\text{ZrO}_2/\text{g-C}_3\text{N}_4$  composites.



**Figure S2:** EDS spectrum of  $\text{ZrO}_2/\text{g-C}_3\text{N}_4$ -5% (a) and EDAX elemental mappings of  $\text{ZrO}_2/\text{g-C}_3\text{N}_4$ -5% composite from the selected area for (b) C, (c) N, (d) O and (e) Zr.



**Figure S3:** FT-IR spectra for  $\text{ZrO}_2$ ,  $\text{g-C}_3\text{N}_4$  and different  $\text{ZrO}_2/\text{g-C}_3\text{N}_4$  composites