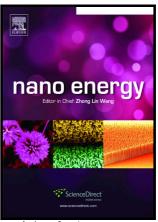
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Distinctive Defects Engineering in Graphitic Carbon Nitride For Greatly Extended Visible Light Photocatalytic Hydrogen Evolution

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ACCEPTED MANUSCRIPT

Distinctive Defects Engineering in Graphitic Carbon Nitride For Greatly Extended

Visible Light Photocatalytic Hydrogen Evolution

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Abstract

Defects modulation usually has great influence on the electronic structures and activities of photocatalysts. Here, porous structured graphitic carbon nitride materials with large amount of defects are obtained through facile 5 minutes thermal treatment in air without additional reactants. The resultant materials show remarkably extended light absorption in the visible light region. Theoretical calculations indicate that the distinctive origin of red-shifted intrinsic light absorption edge and newly occurred light

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