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## Regular Article

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# Construction of fiber-shaped silver oxide/tantalum nitride $p$ - $n$ heterojunctions as highly efficient visible-light-driven photocatalysts

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## Abstract:

Constructing novel and efficient  $p$ - $n$  heterojunction photocatalysts has stimulated great interest. Herein, we report the design and synthesis of fiber-shaped  $\text{Ag}_2\text{O}/\text{Ta}_3\text{N}_5$   $p$ - $n$  heterojunctions as a kind of efficient photocatalysts.  $\text{Ta}_3\text{N}_5$  nanofibers were prepared by an electrospinning-calcination-nitridation method, and then the *in-situ* anchoring of  $\text{Ag}_2\text{O}$  on their surfaces was realized by a facile deposition method. The resulting  $\text{Ag}_2\text{O}/\text{Ta}_3\text{N}_5$  heterojunctions were comprised of porous  $\text{Ta}_3\text{N}_5$  nanofibers (diameter:  $\sim 150$  nm) and  $\text{Ag}_2\text{O}$

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