Photochemical properties of titania/ferroelectric heterostructures

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Basic idea

• Titania can be used to make H₂ by water photolysis.

• Ferroelectric substrates can be used to improve the properties of titania photocatalysts.

• Dipolar fields separate photogenerated electrons and holes, inhibiting recombination and increasing efficiency.

Composite effect in hydrogen synthesis

Visible light photoactivity by titania