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Nanotitania crystals induced efficient photocatalytic color degradation, antimicrobial and larvicidal activity

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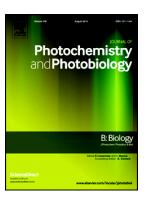
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ACCEPTED MANUSCRIPT

Nanotitania crystals induced efficient photocatalytic color degradation, antimicrobial and larvicidal activity

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Highlights

- Nanotitania crystals were synthesized using aqueous leaf extracts of *Euphorbia hirta*
- Physico-chemical properties of the titanium nanoparticles were characterized.
- Titania nanoparticles exhibited enhanced photocatalytic dye decoloration activity against 4 important textile dyes.
- The synthesized nanocrystals showed efficient antibacterial activity against gram-positive and gram negative bacteria.
- Titania nanoparticles exhibited high larvicidal activity against Aedes aegypti and Culex quinquefasciatus.

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