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The utilization of modified alkoxide as a precursor for solvothermal synthesis of nanocrystalline titania

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## **ACCEPTED MANUSCRIPT**

Titania nanopowders were prepared by solvothermal process.

Unmodified and ethyl acetoacetate modified titanium n-butoxide were used as precursors.

Pure nanocrystalline anatase (<10 nm) was obtained at 150 °C regardless of chelation.

The chelation stabilises the anatase phase and grain size and increases the specific surface.

The bandgap is unaffected, yet the photoactivity varies due to the absorption coefficient change.

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