

# Design and synthesis of chalcone photoinitiator

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Chalcone derivatives possess significant potential as LED-sensitive photoinitiators (PIs) due to their affordability, facile synthesis, and ability to undergo photochemical hydrogen abstraction with tertiary amines. In this report, we present a comprehensive overview of our group's efforts in the development and commercialization of chalcone PIs.<sup>1-4</sup> Additionally, we propose unexpected properties of the designed chalcones, including solid-liquid transformation,<sup>5</sup> acidichromism,<sup>6</sup> and controllable activity<sup>7,8</sup> under irradiation, which hold potential implications for chalcones being applied in the field of photo-chemistry.

## References

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