

Intimate Coupling AgI/AgIO₃ Heterojunction Photocatalysts with Excellent Visible-Light-Driven Photocatalytic Activity

Chao Zeng^{†*}, Haojia Ding[†], Linping Bao[†], Yujing Su[†], Zhipeng Wang^{†*}

[†]Institute of Advanced Materials, College of Chemistry and Chemical Engineering,
Jiangxi Normal University, 99 Ziyang Avenue, Nanchang, Jiangxi Province, 330022,
China

Address correspondence to E-mail: czeng@jxnu.edu.cn, wangzhipeng@jxnu.edu.cn

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and with different scavengers, including IPA (b), EDTA-2Na (c), and BQ (d), under irradiation of visible light ($\lambda > 420$ nm).

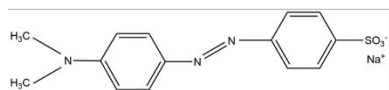
Figure S13. The proposed photocatalytic mechanism scheme over $\text{AgIO}_3@\text{X}$ composite photocatalyst under visible light ($\lambda > 420$ nm) irradiation.

Figure S14. HPLC chromatogram of initial MO solution (a) and MO solution over $\text{AgIO}_3@20\%$ sample after photocatalytic reaction for 20 min (b).

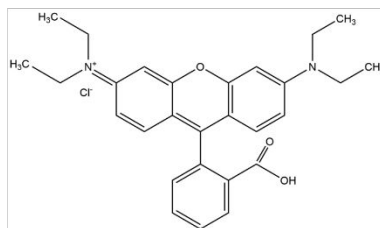
Figure S15. MS spectrum of the initial MO solution.

Figure S16. MS spectrum of HPLC peak with retention time of 1.827 min for the degradation intermediates of MO over $\text{AgIO}_3@20\%$ sample after photocatalytic reaction for 20 min.

Methyl orange (MO)



Rhodamine B (RhB)



2,4-dichlorophenol (2,4-DCP)

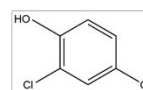


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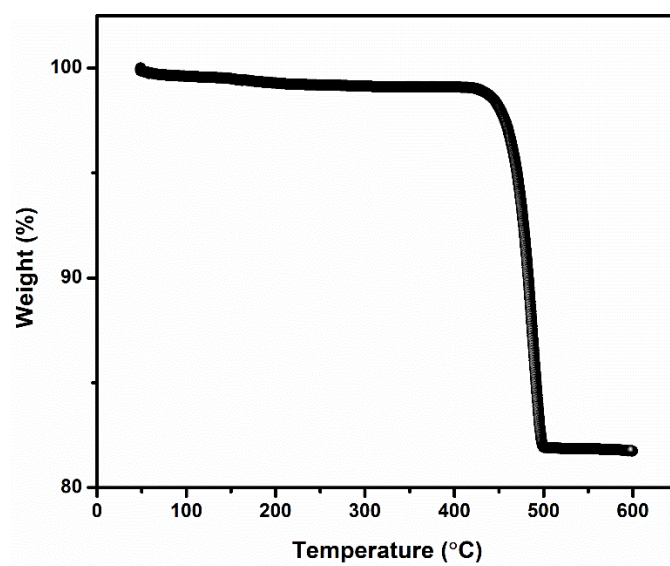


Figure S2. TG curve of AgIO_3 .

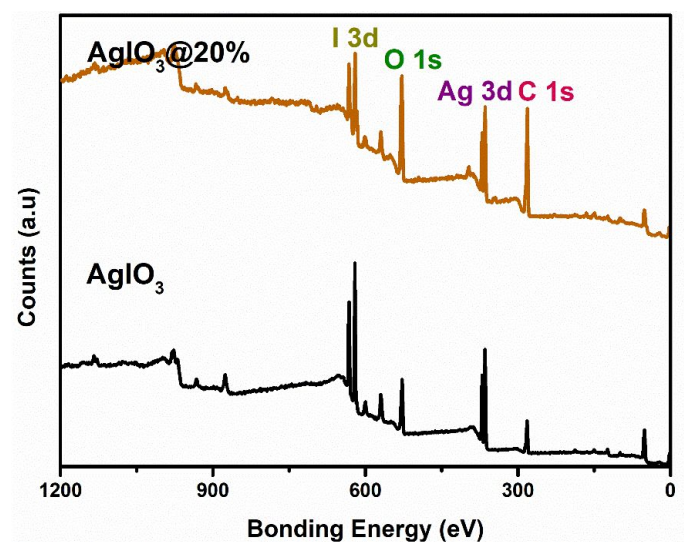


Figure S3. Typical XPS survey spectra for AgIO₃ and AgIO₃@20% samples.



Figure S4. Digital photos of suspensions for the AgIO_3 (left) and $\text{AgIO}_3@20\%$ (right) samples.

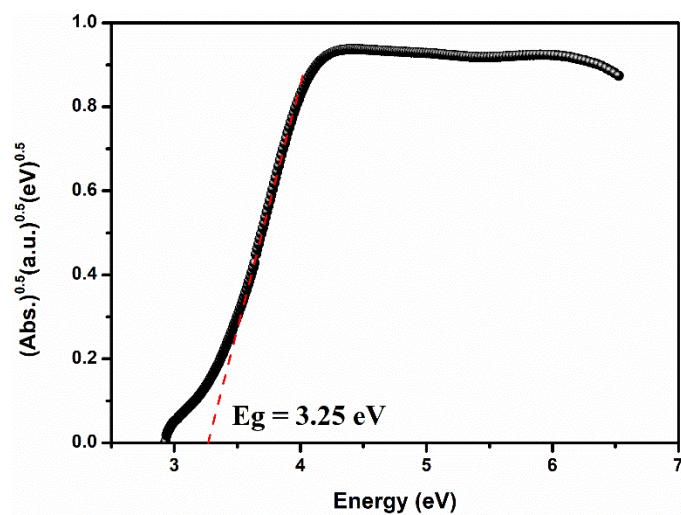


Figure S5. Band gap of AgIO_3 .

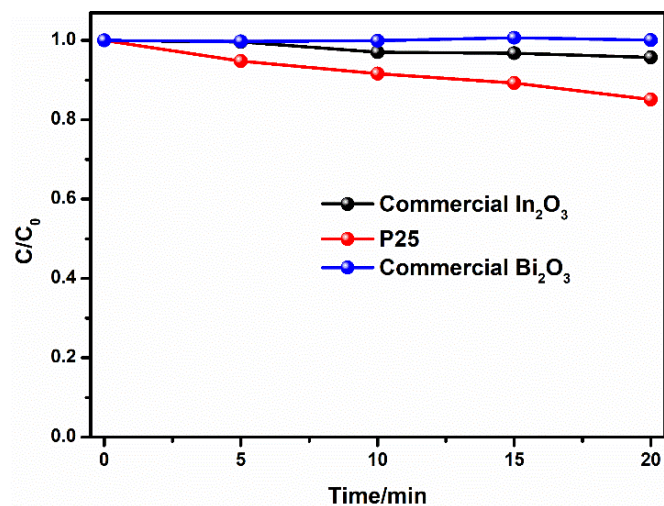


Figure S6. Photocatalytic degradation curves of MO over In_2O_3 , P25, Bi_2O_3 under visible light ($\lambda > 420$ nm) irradiation.

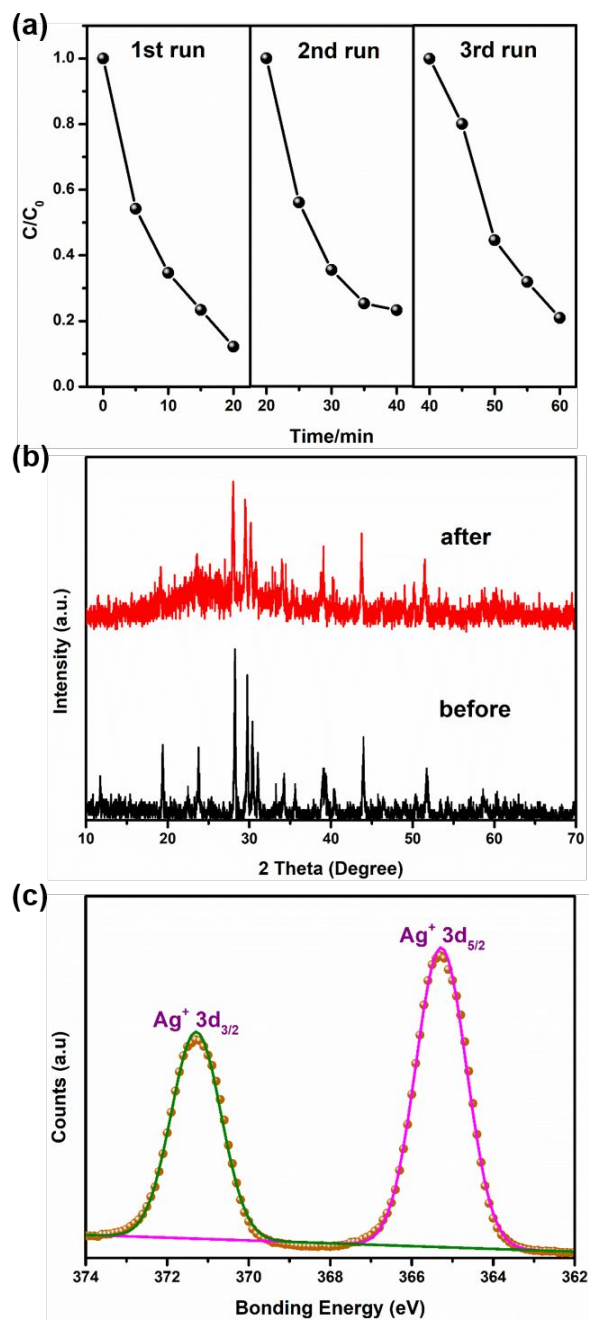


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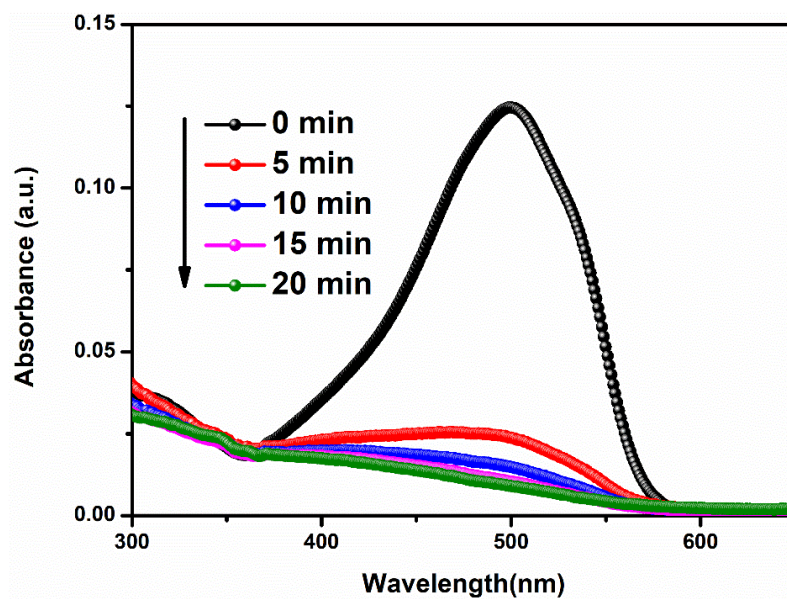


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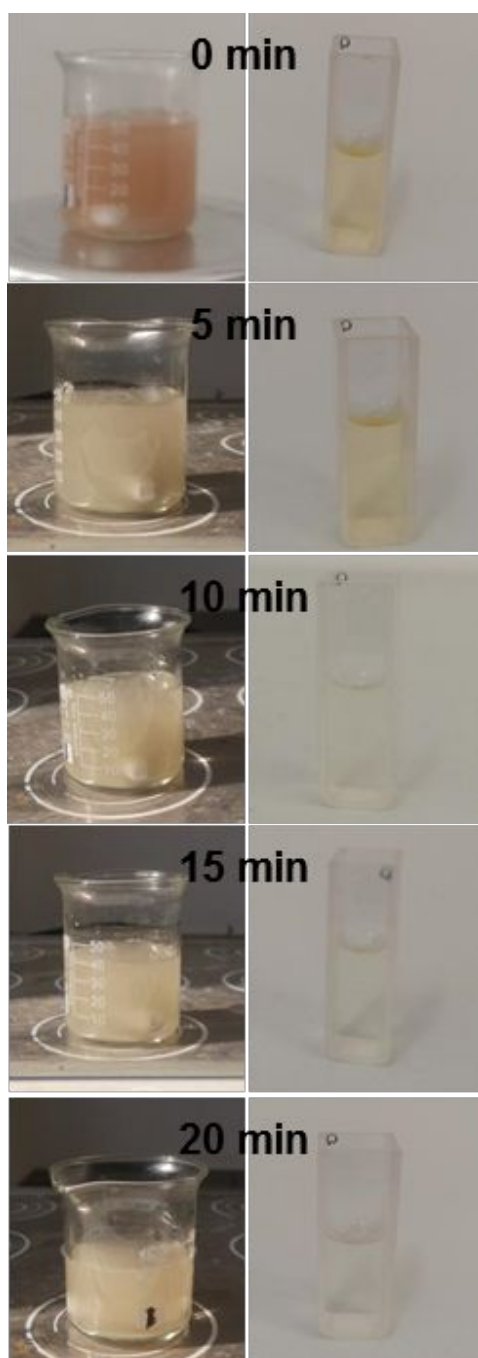


Figure S9. Color change of MO solution over $\text{AgIO}_3@20\%$ sample under sunshine illumination.

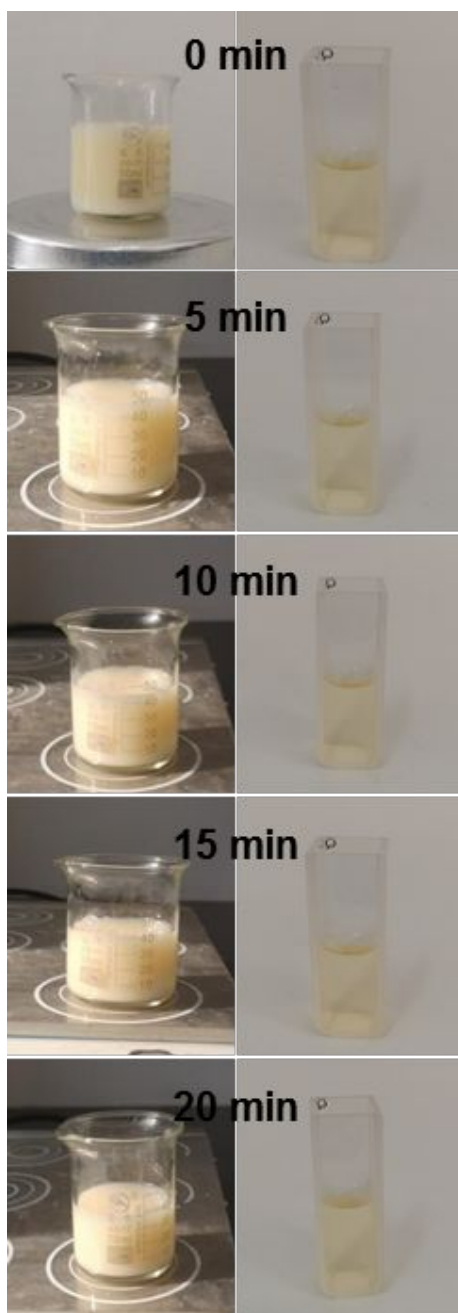


Figure S10. Color change of MO solution over P25 under sunshine illumination.

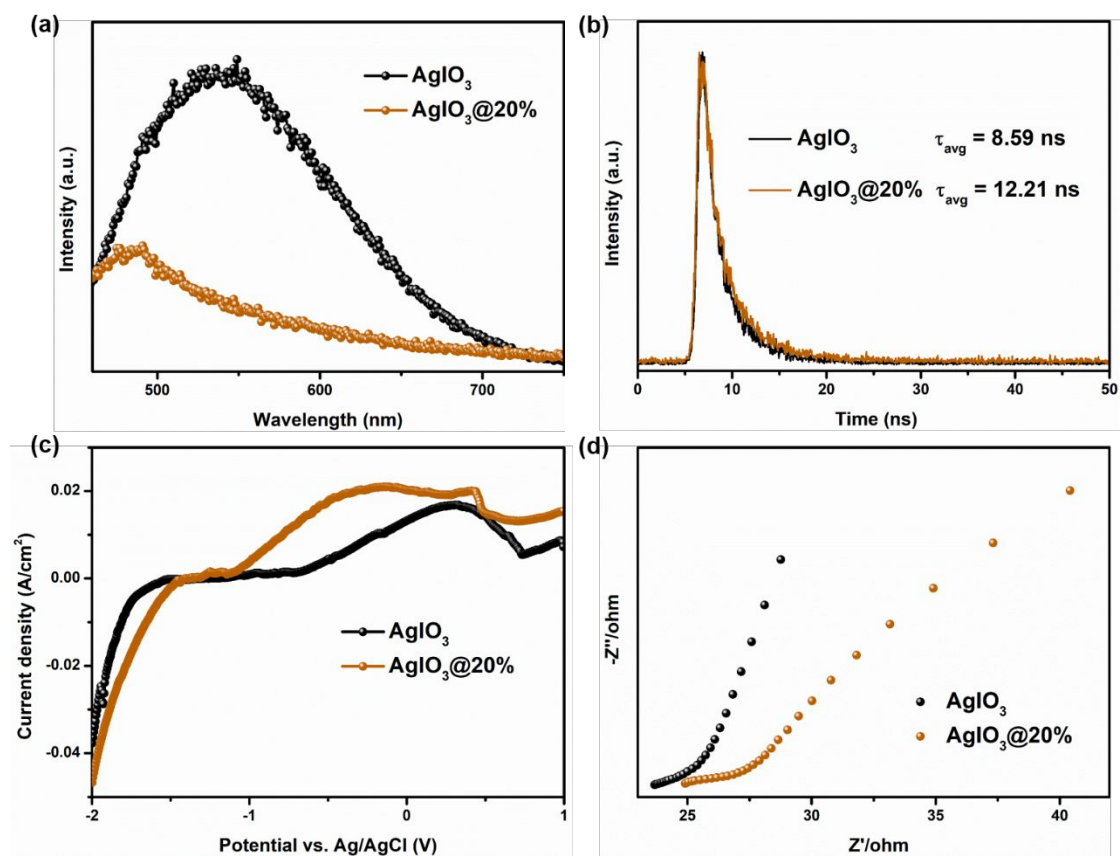


Figure S11. PL spectra with excitation wavelength of 380 nm (a), photoluminescence decay curves (b), linear sweep voltammetry (c), and EIS Nyquist plots (d) of AgIO_3 and $\text{AgIO}_3@20\%$ samples.

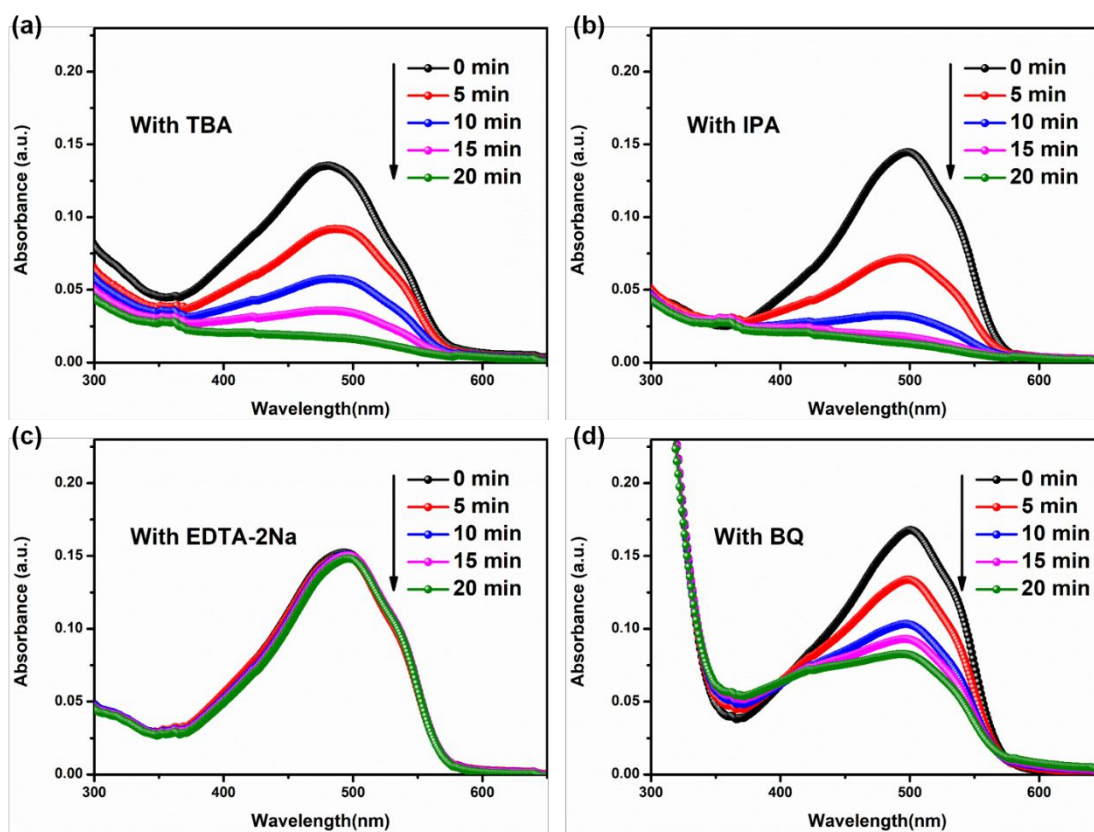


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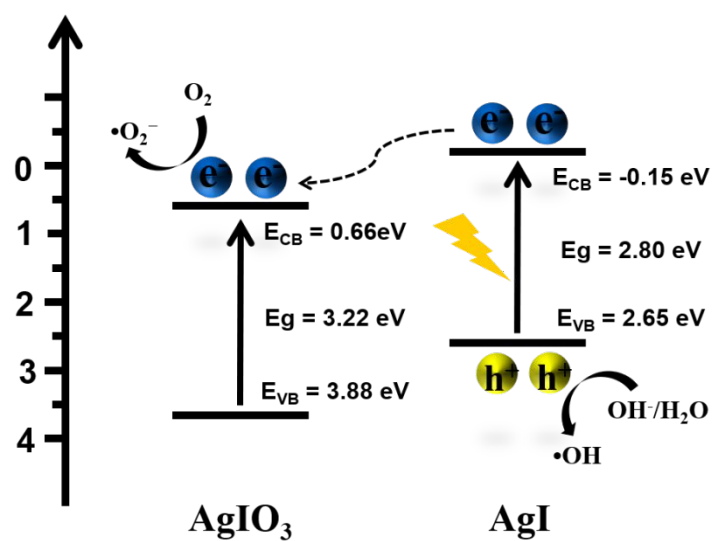


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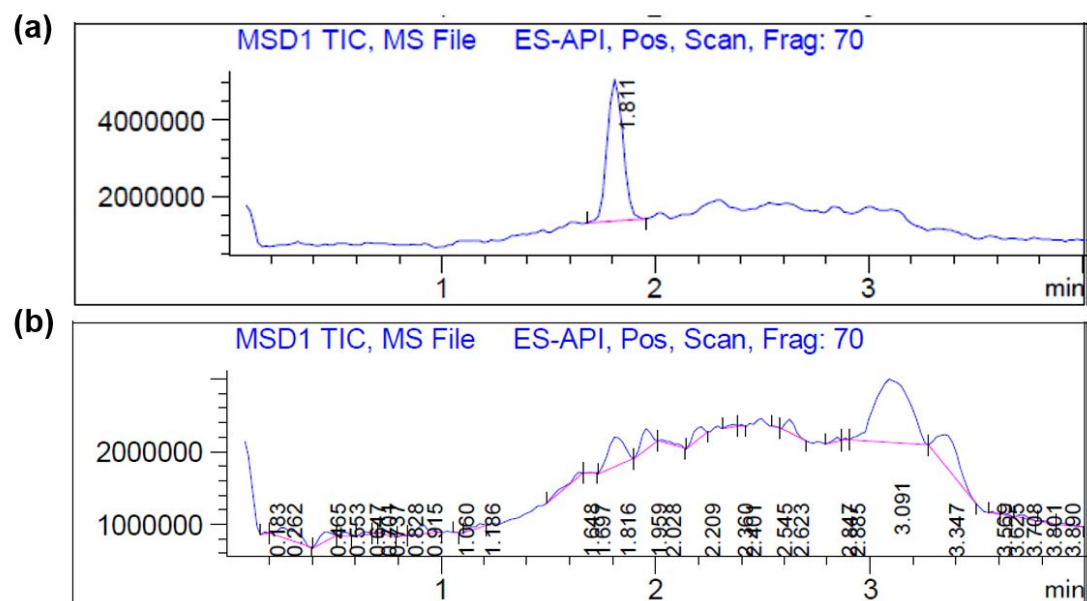


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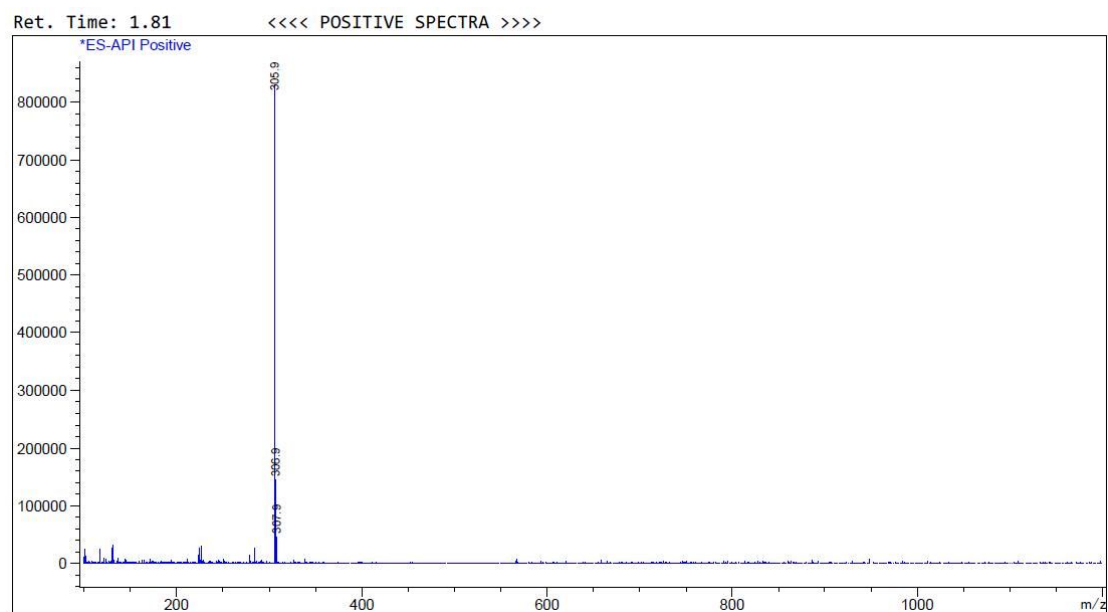


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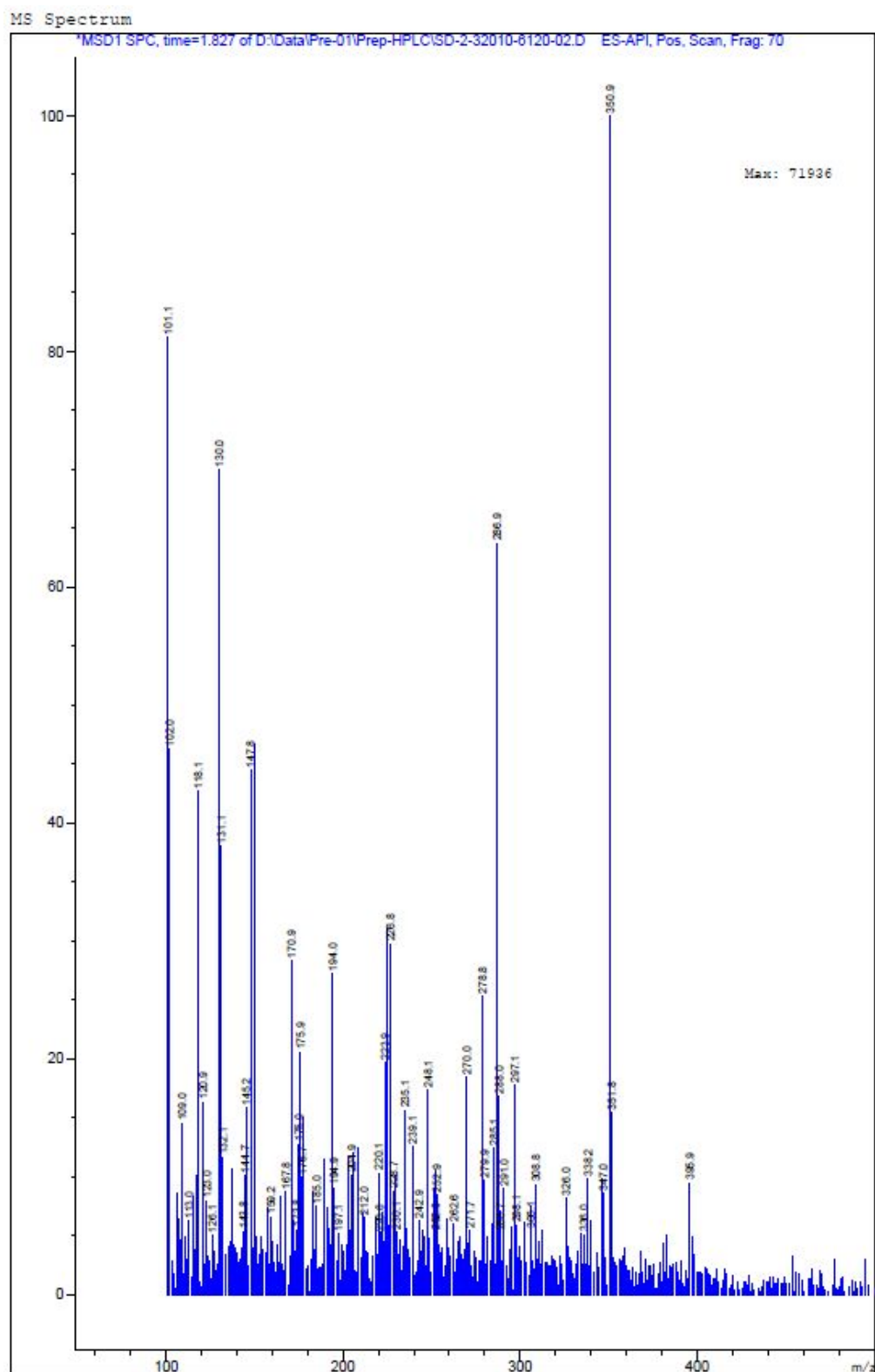


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