

Supplementary Materials

Novel mechanism and kinetics of tetramethrin degradation using an indigenous *Gordonia cholesterolivorans* A16

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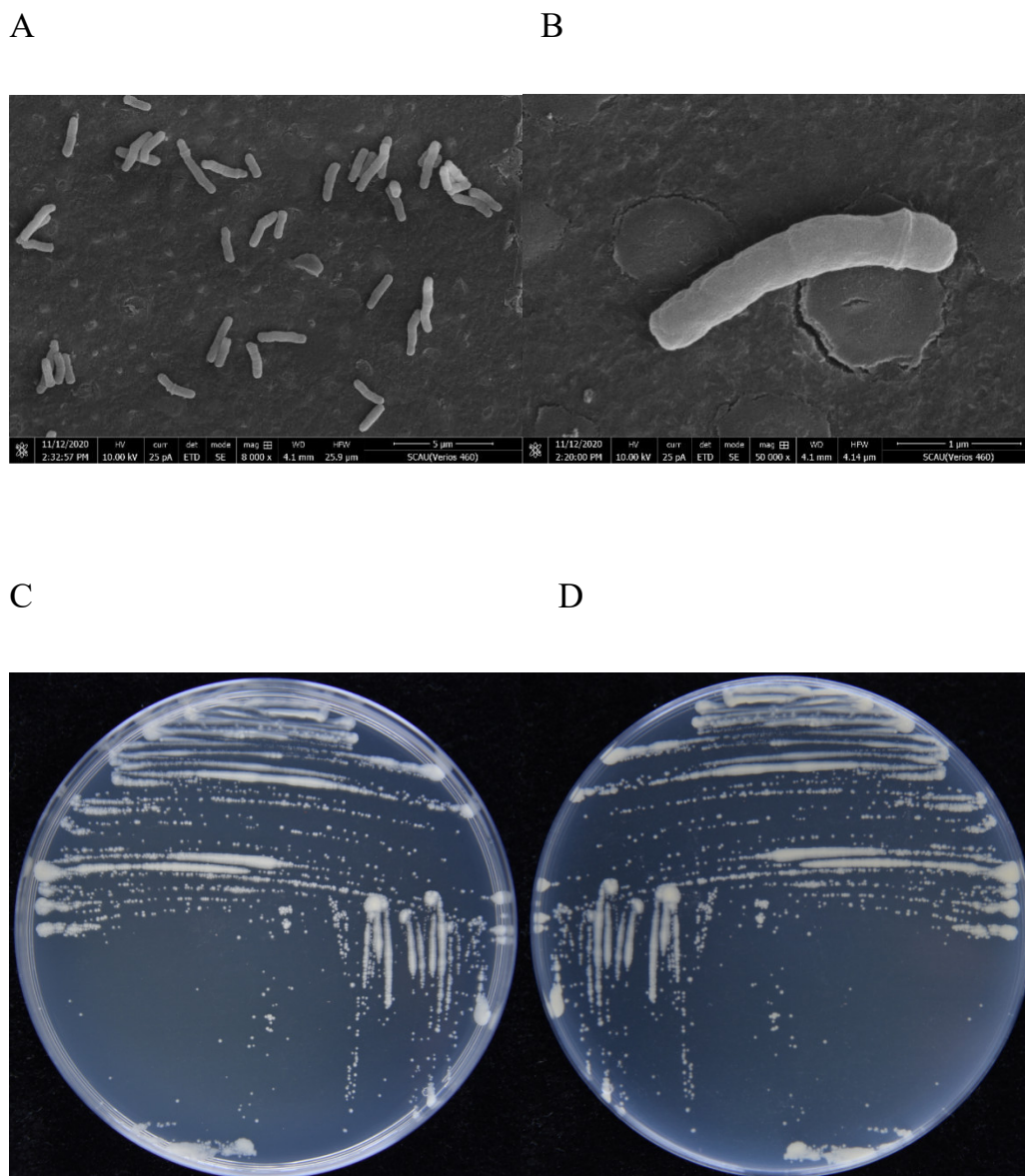


Figure S1. Morphological characteristics of *Gordonia cholesterolivorans* strain A16.

Pictures A (1000×) and B (5000×) are scanning electron micrographs. Pictures C and D are front and back sides of strain A16 grown on LB agar plates.

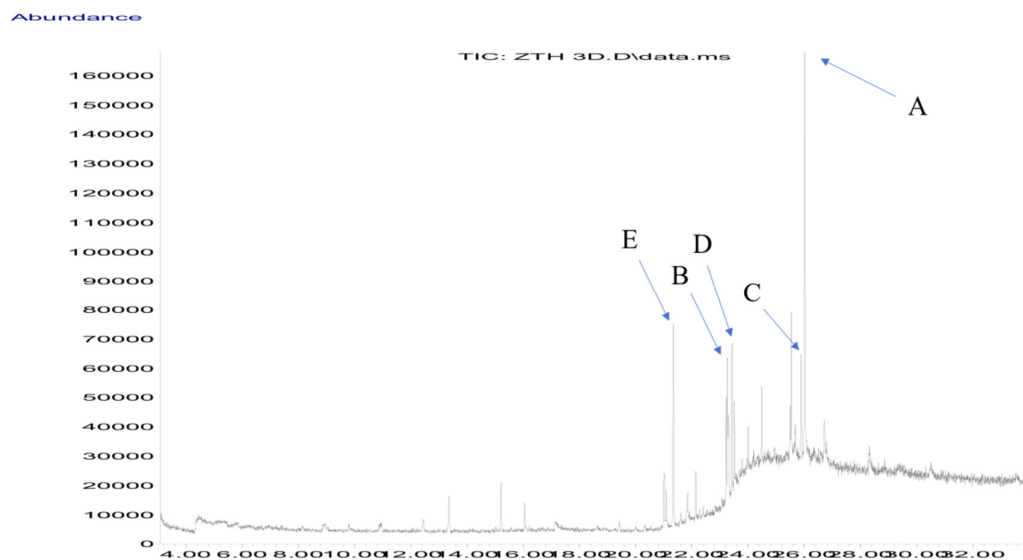
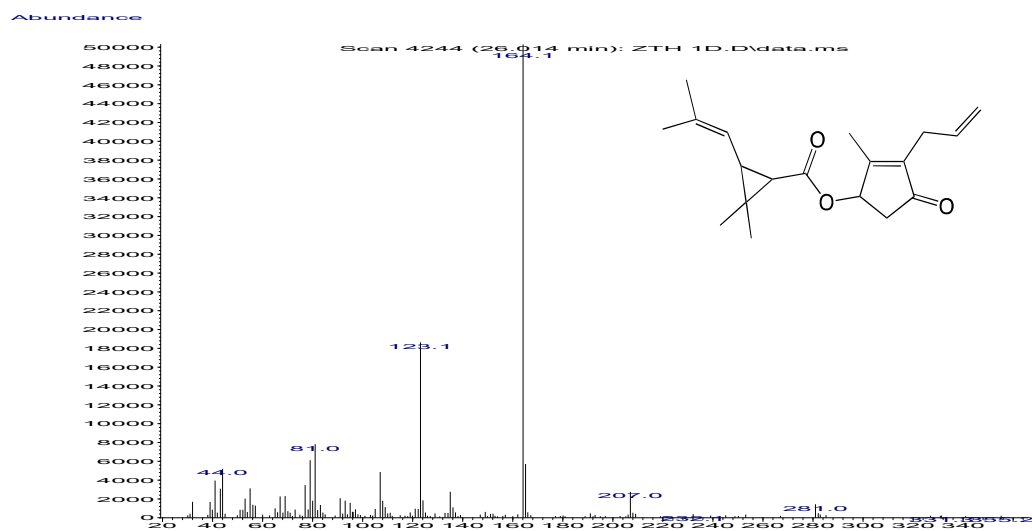
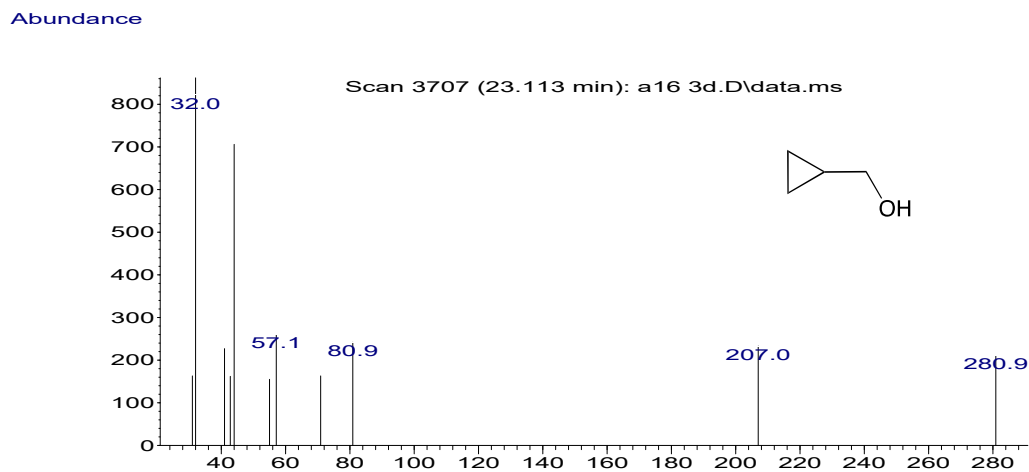


Figure S2. Chromatogram of tetramethrin metabolism by *Gordonia cholesterolivorans* strain A16. (A) Tetramethrin, 26.0 min; (B) cyclopropylmethanol, 23.1 min; (C) 2-butyl-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione, 25.9 min; (D) acrylamide, 23.5 min; (E) *N*-ethylacetamide, 21.3 min.

A

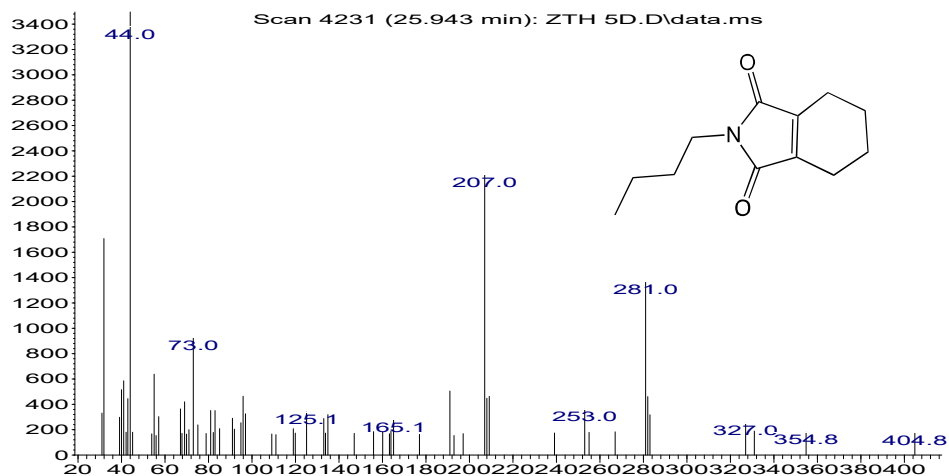


B



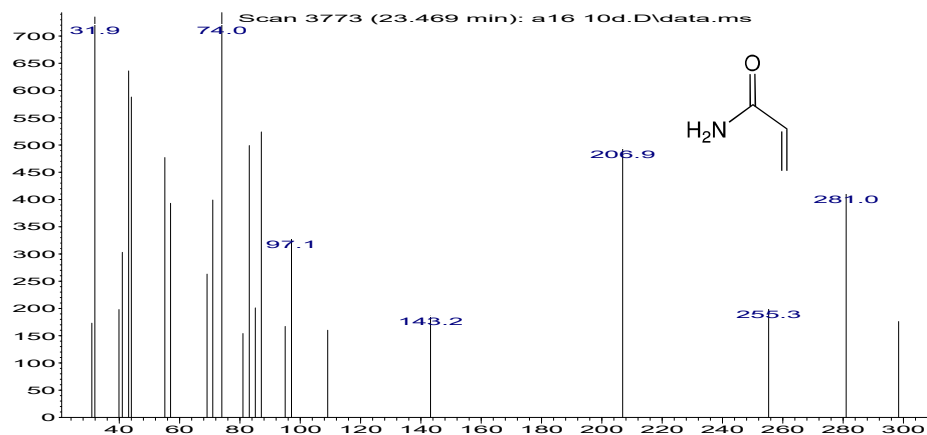
C

Abundance



D

Abundance



E

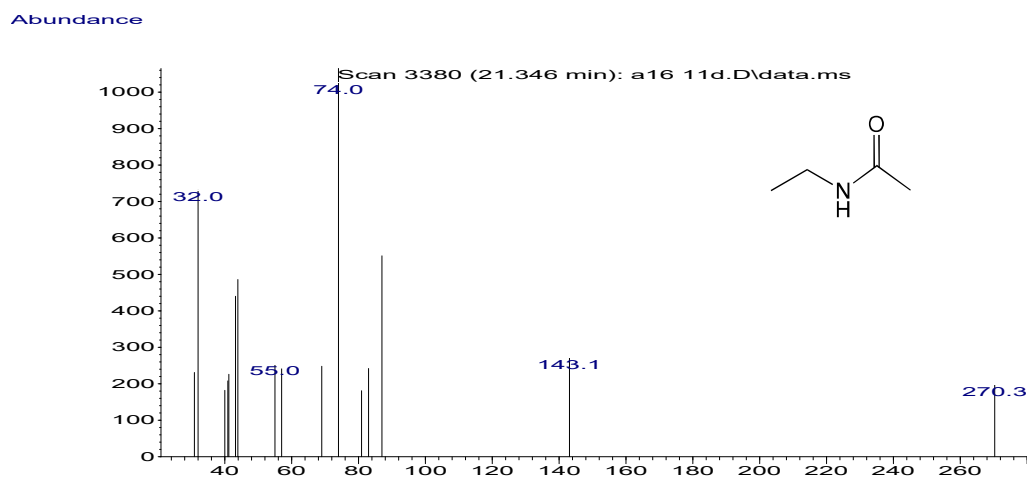
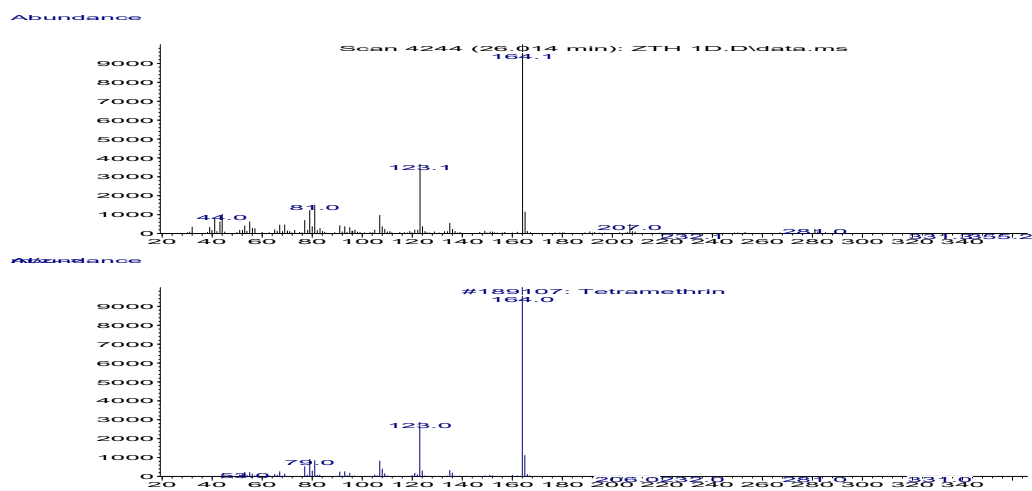
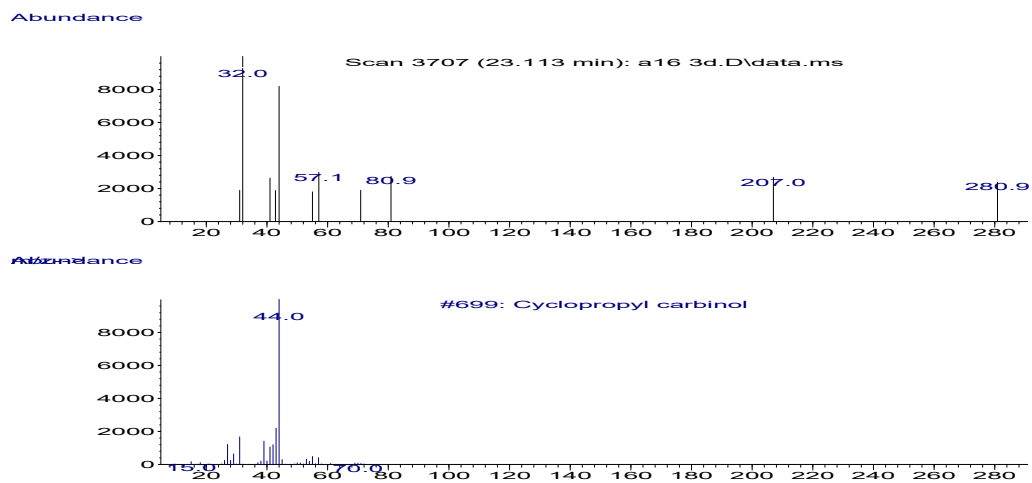


Figure S3. Gas chromatography-mass spectrometry (GC-MS) analysis of the metabolites produced during tetramethrin degradation by *Gordonia cholesterylivorans* strain A16. (A) Tetramethrin; (B) cyclopropylmethanol; (C) 2-butyl-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione; (D) acrylamide; (E) *N*-ethylacetamide.

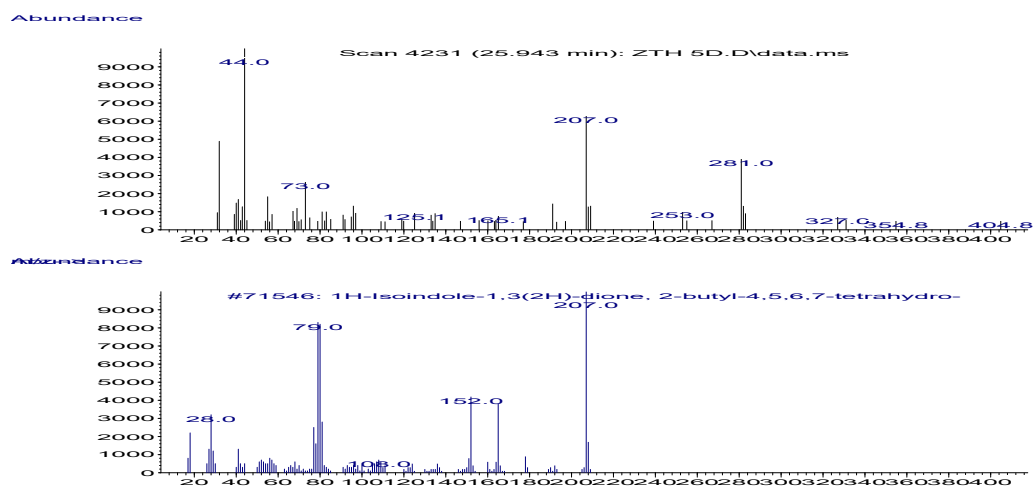
A



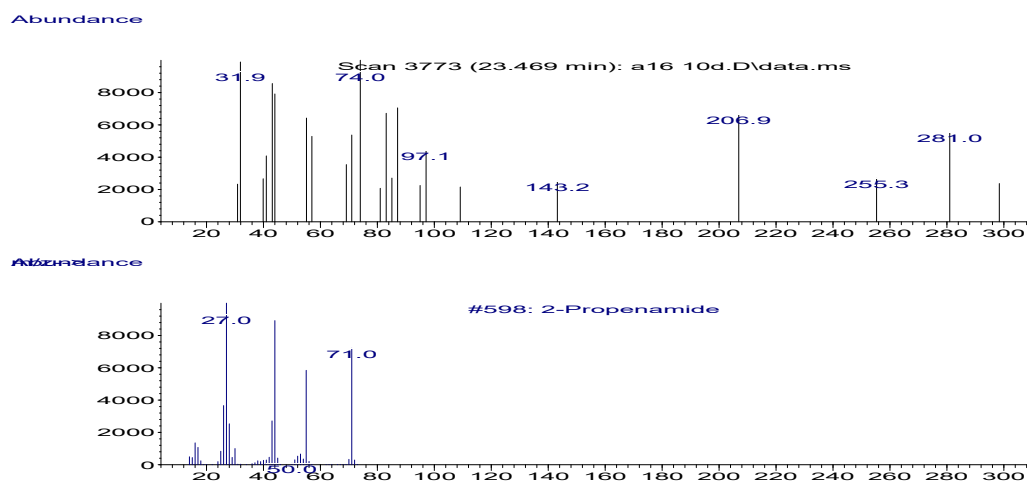
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D



E

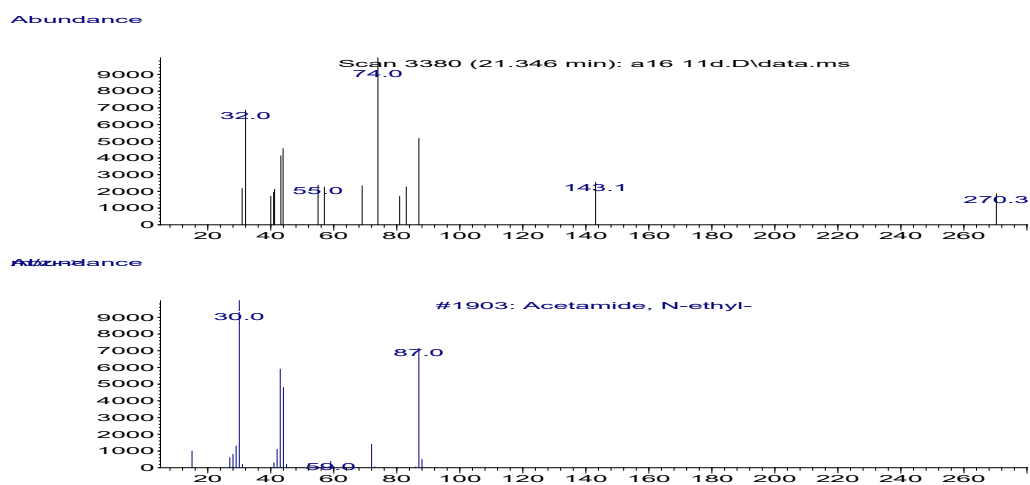


Figure S4. The mass spectra of tetramethrin metabolites reported in the National Institute of Standards and Technology (NIST, United States) library database. (A) Tetramethrin; (B) cyclopropylmethanol; (C) 2-butyl-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione; (D) acrylamide; (E) *N*-ethylacetamide.