SUPPLEMENTARY MATERIAL

CHEMICAL COMPOSITIONS AND ANTIOXIDANT AND ANTIMICROBIAL ACTIVITIES OF PROPOLIS PRODUCED BY *Frieseomelitta longipes* AND *Apis mellifera* BEES

Edineide Cristina A. de Souza[a], Etyene Janyne G. da Silva[a], Hayron Kalil C. Cordeiro[b], Nauara M. Lage Filho[b], Felipe M. A. da Silva[c], Diany Lucy S. dos Reis[d], Carla Porto[d], Eduardo J. Pilau[d], Luiz Antonio M. A. da Costa[a], Afonso D. L. de Souza[c], Cristiano Menezes[e], Adriana Flach[a,*¤]

[a]Departamento de Química, Universidade Federal de Roraima, 69310-000, Boa Vista – RR, Brasil

[b]Universidade Federal Rural da Amazônia, 66075-110 Belém – PA, Brasil

[c]Departamento de Química, Federal Universidade Federal da Amazônia, 69077-000, Manaus – AM, Brasil.

[d]Departamento de Química, Universidade Estadual de Maringá, 87020-900, Maringá –. PR, Brasil

[e]Embrapa Amazônia Oriental, 66095-903 Belém – PA, Brasil.

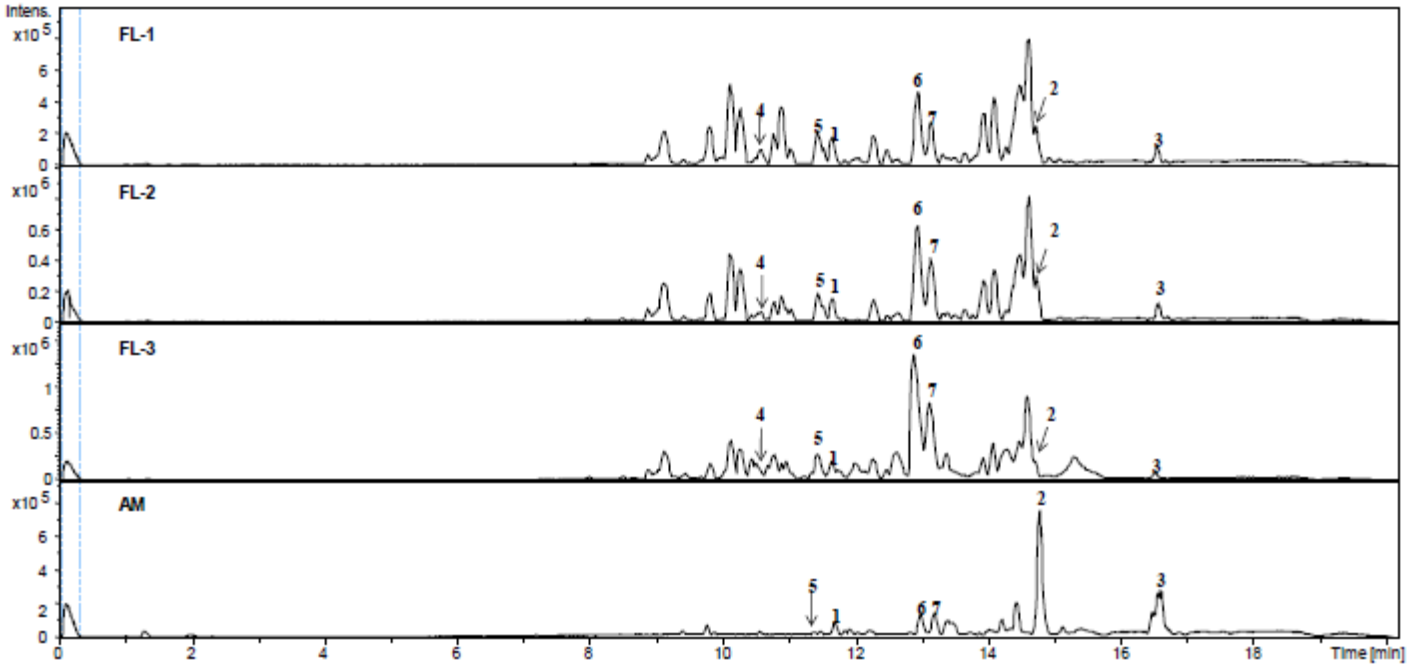

Figure 1S- Base peak chromatograms (BPC) obtained on C18 column (1.7 µm 2.1 x 100 mm), flow of 0.2 mL min^{-1},mobile phase: H_2O/formic acid (99:1, solvent A) and methanol (100, solvent B), for the samples **FL-1**, **FL-2**, **FL-3** and **AM**. The numbers (1, 2, 3 4, 5, 6 and 7) in chromatogram refer to compounds detected and are shown at Table 2.

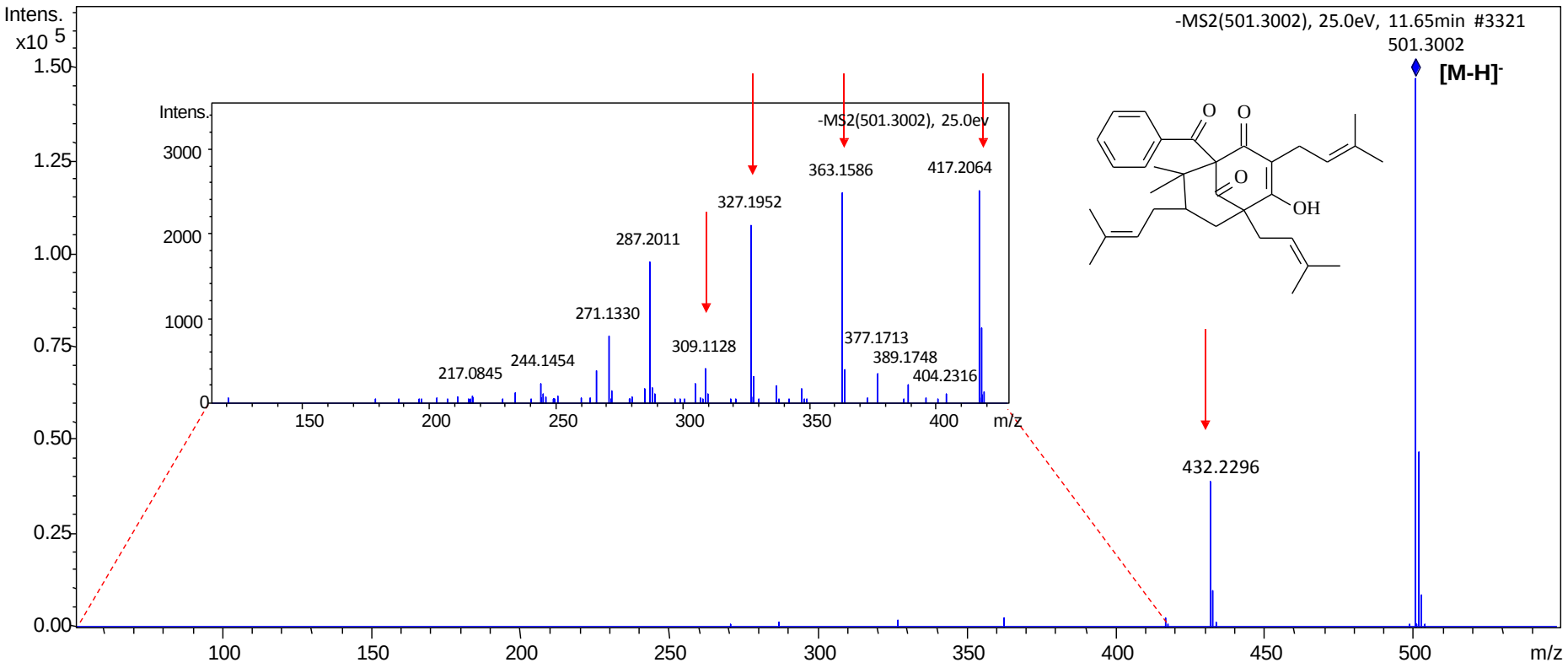

Figure 2S. ESI-(-)-MS/MS fragmentation of m/z 501.3002 $[M-H]^-$, with retention time (RT) 11.65 min, detected in all the samples, which was consistent with the presence of a fragment **7-*epi*-Nemorosone** with 0.59 ppm of mass error.

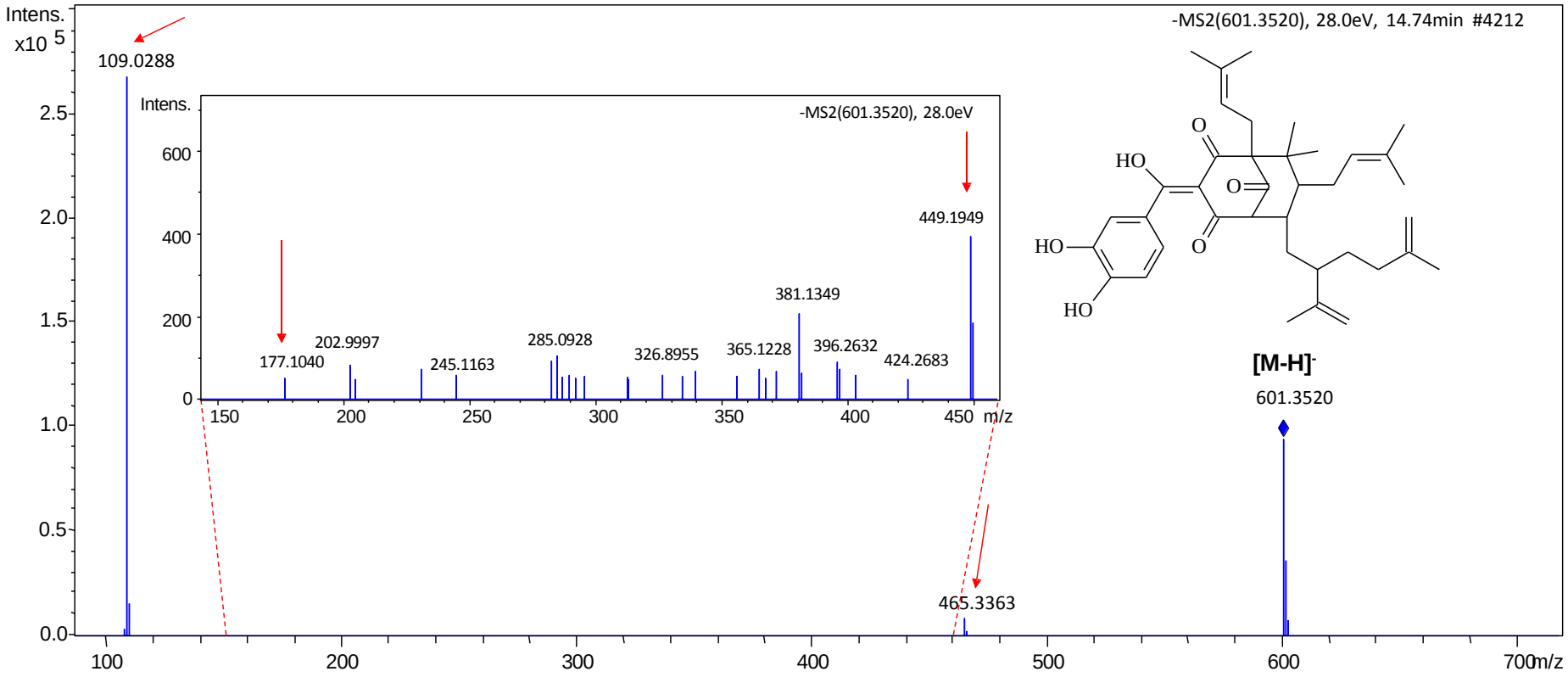

Figure 3S. ESI-(-)-MS/MS fragmentation of m/z 601.3520 $[M-H]^-$, with retention time (RT) 14.74 min, which was consistent with the **Xanthochymol** molecule with mass error of 0.49 ppm.

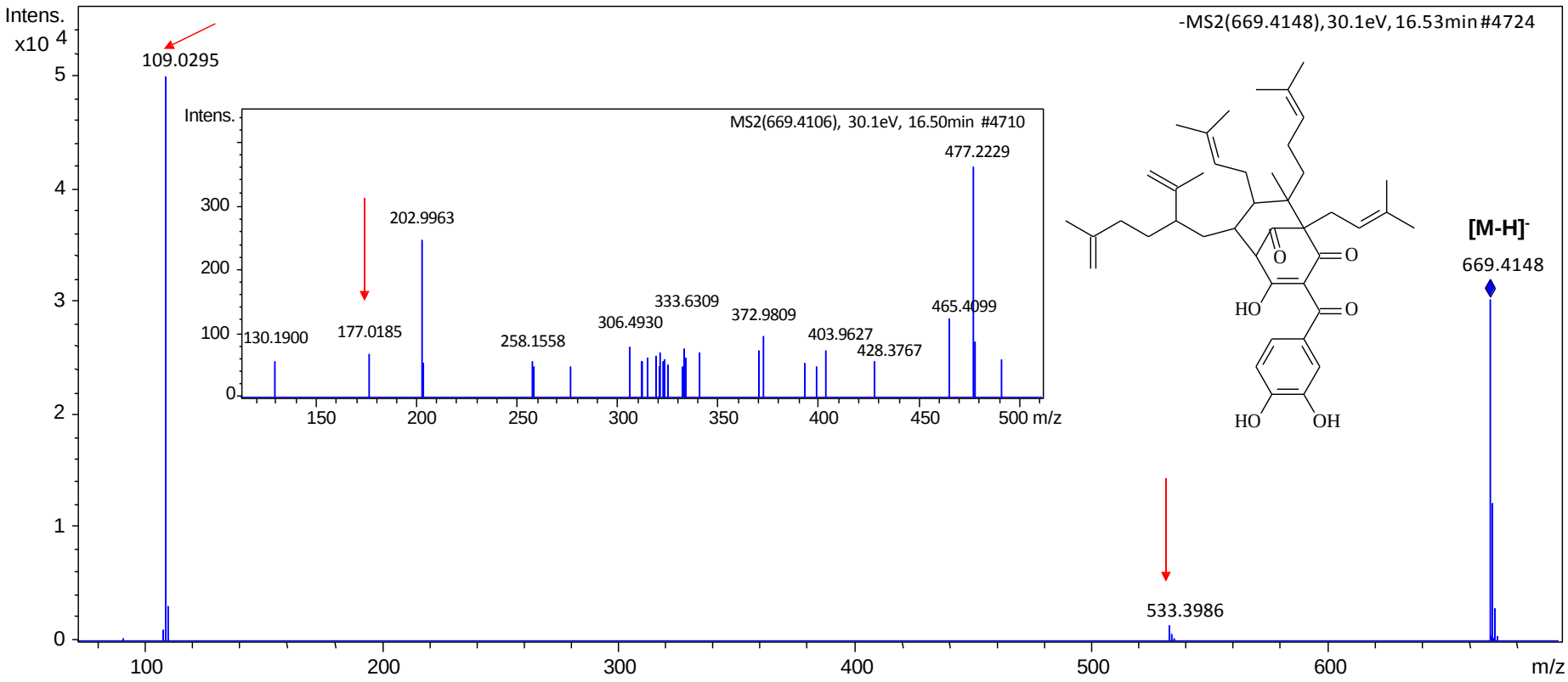

Figure 4S- ESI-(-)-MS/MS fragmentation of m/z m/z 669.4148 $[M-H]^-$ with retention time (RT) 16.53 min, tentatively characterized as **Guttiferone C or D** derivatives corresponding to the mass of the Xanthochymol plus an isopentenyl unit (C_5H_8, 68 Da), within the 0.29 ppm mass error.

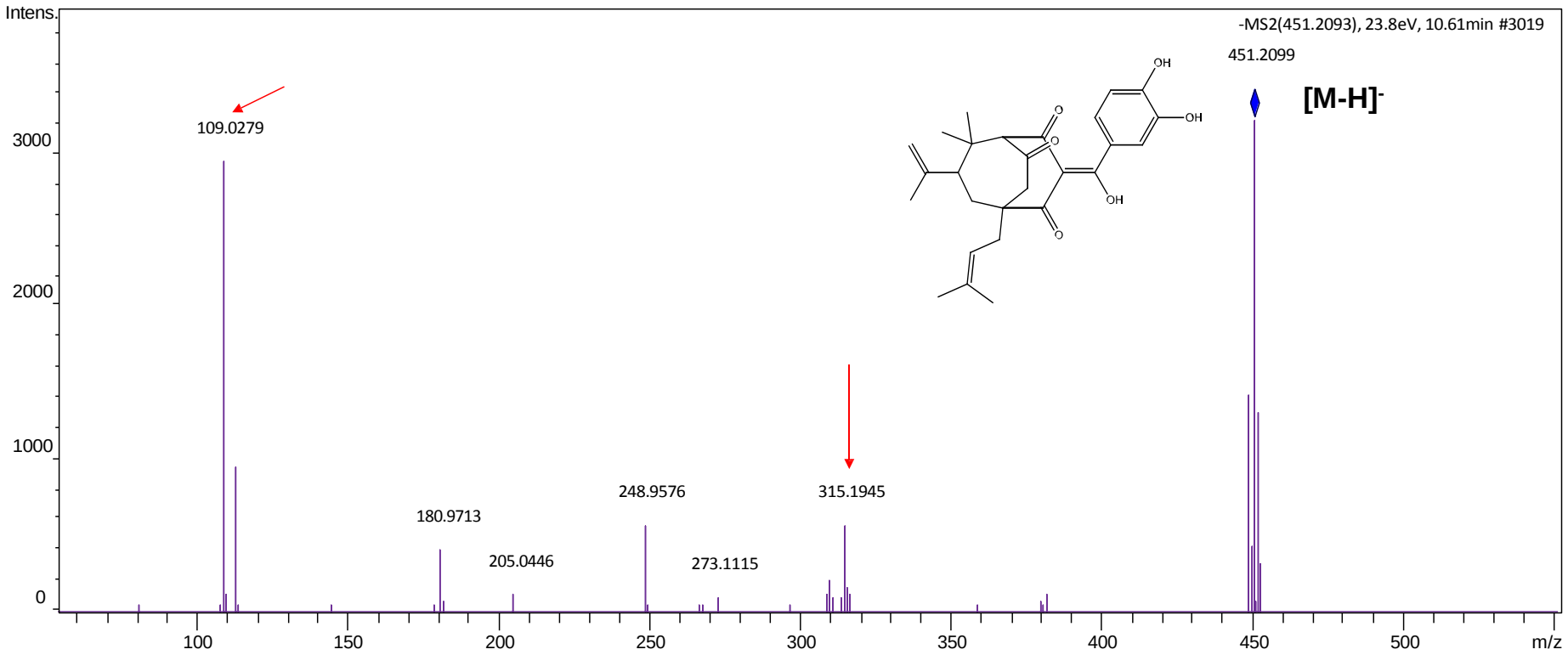

Figure 5S- ESI-(-)-MS/MS fragmentation of m/z 451.2099 $[M-H]^-$, with retention time (RT) 10.61 min, which was consistent with the **Gambogenone** molecule with mass error of 4.87 ppm.

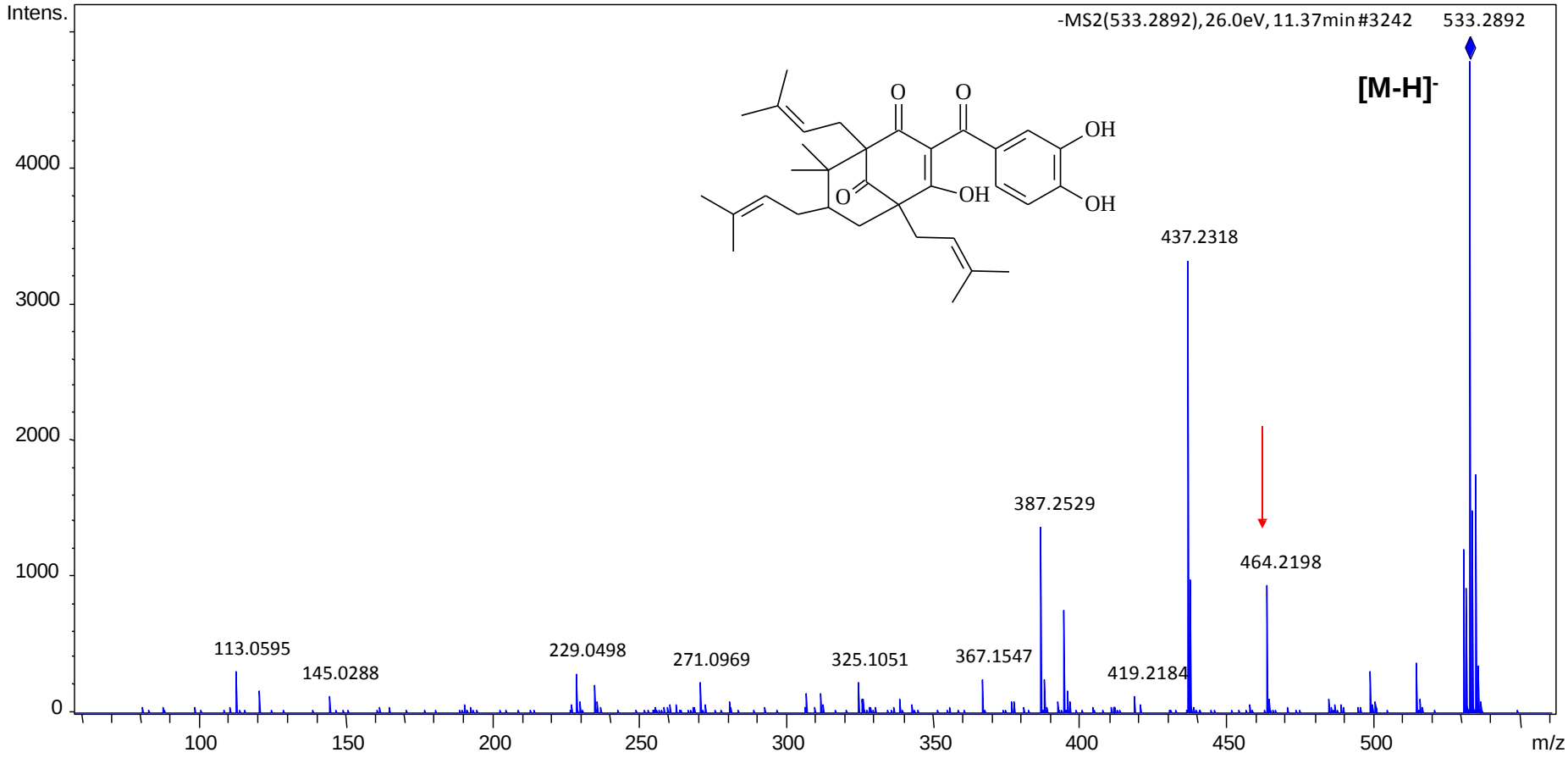

Figure 6S- ESI-(-)-MS/MS fragmentation of m/z 533.2879 $[M-H]^-$, with retention time (RT) 9.57 min, which was consistent with the **Aristophenone A** molecule with mass error of 3.37 ppm.

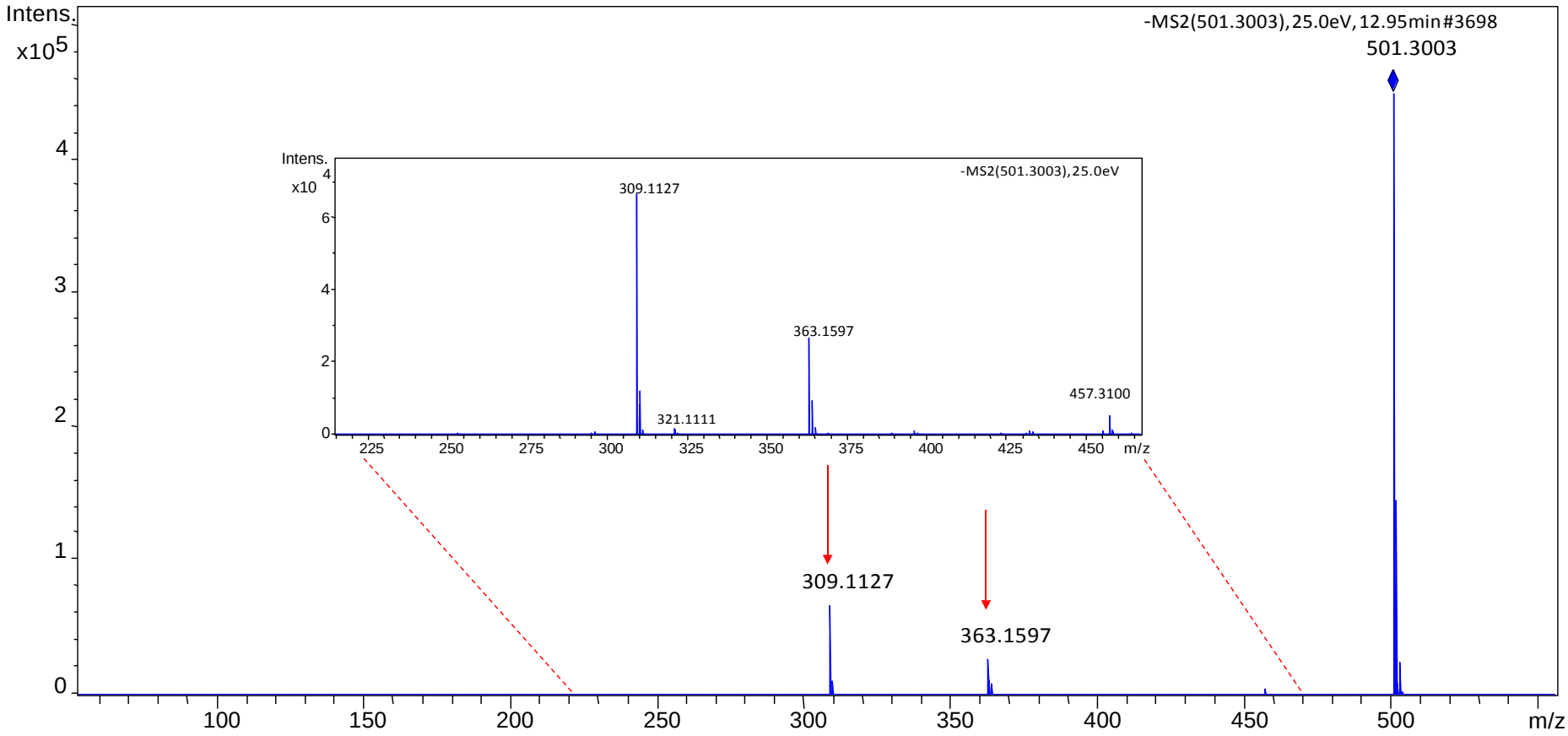

Figure 7S- ESI-(-)-MS/MS fragmentation of m/z 501.3003 $[M-H]^-$, with retention time (RT) 12.95 min, which was consistent with the **Polyprenylated benzophenone derivative**.

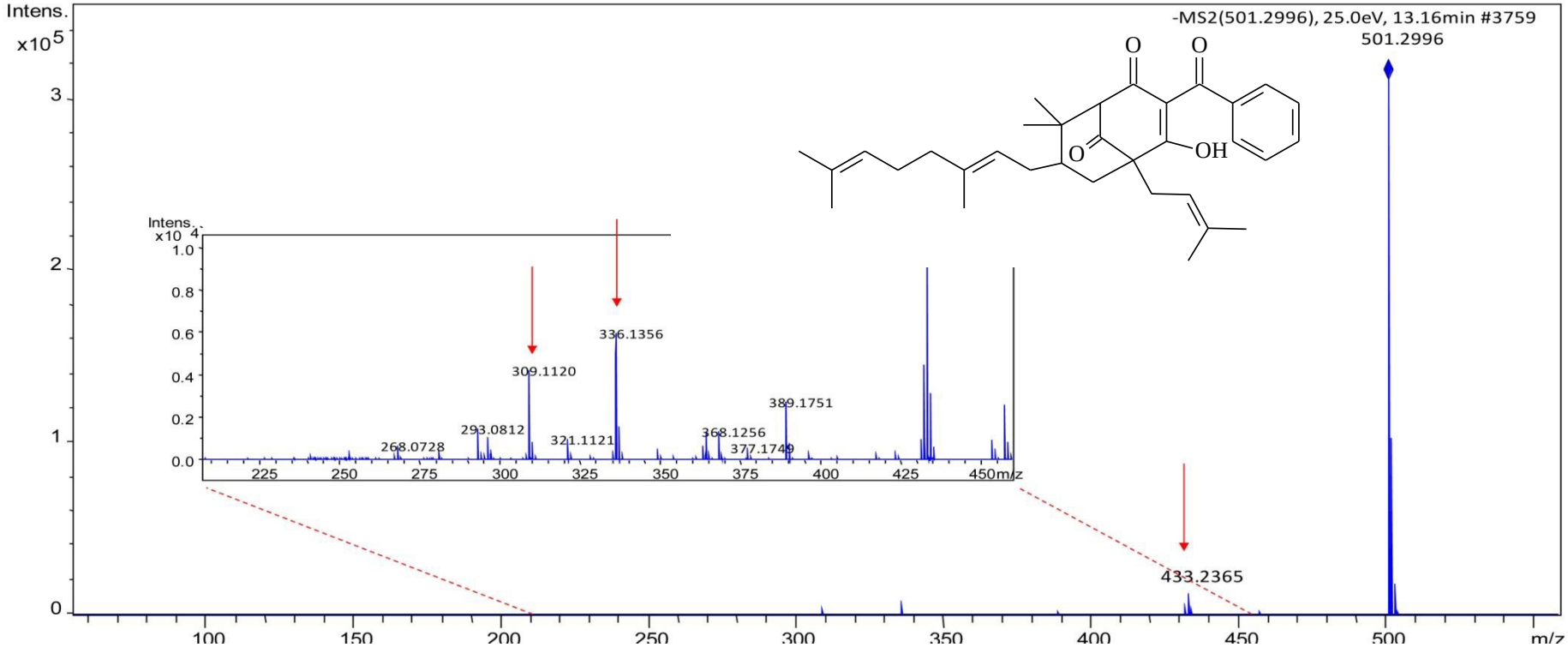

Figure 8S- ESI-(-)-MS/MS fragmentation of m/z 501.2996 $[M-H]^-$, with retention time (RT) 13.16 min, which was consistent with the (1R,5R,7R)-3-Benzoyl-7-[(2E)-3,7-dimethyl-2,6-octadien-1-yl]-4-hydroxy-8,8-dimethyl-5-(3-methyl-2-buten-1-yl)bicyclo[3.3.1]non-3-ene-2,9-dione.