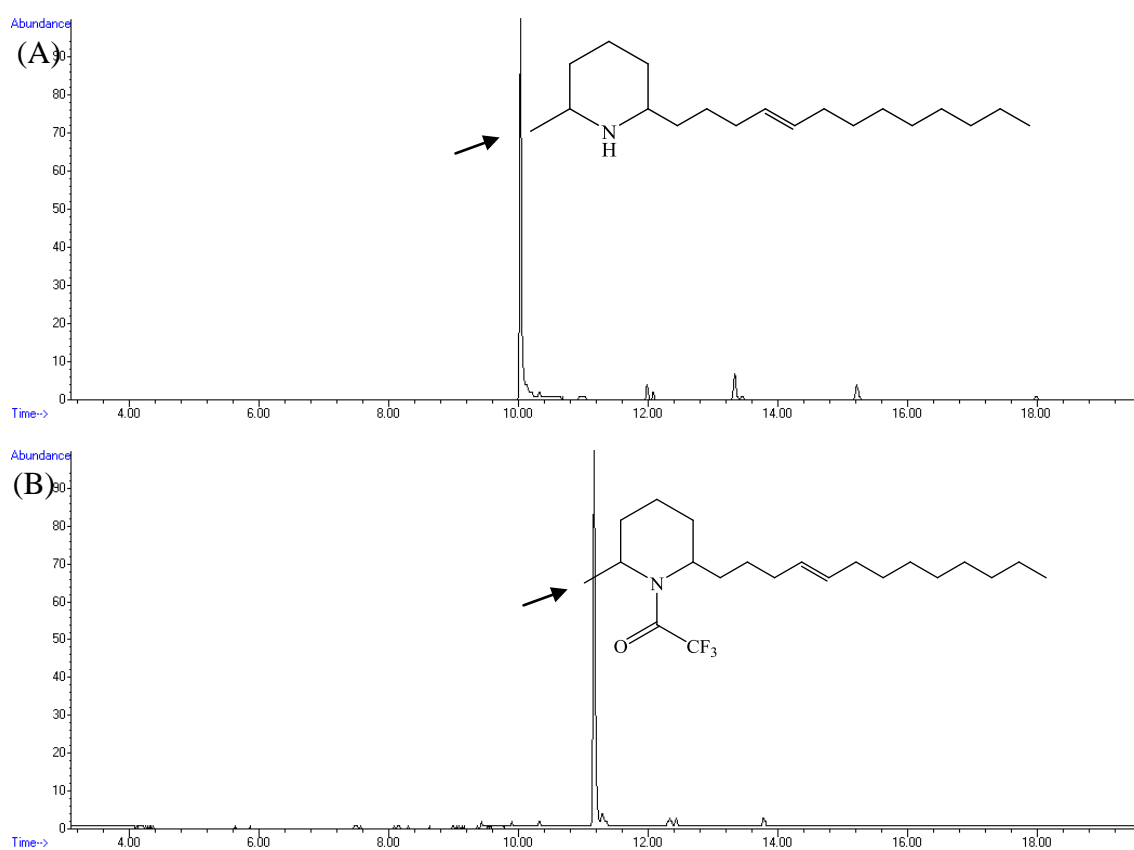


## Supplementary Information

### Absolute Configuration of *Solenopsis* Piperidines as a Tool to Classify Fire Ants (Formicidae:Myrmicinae)

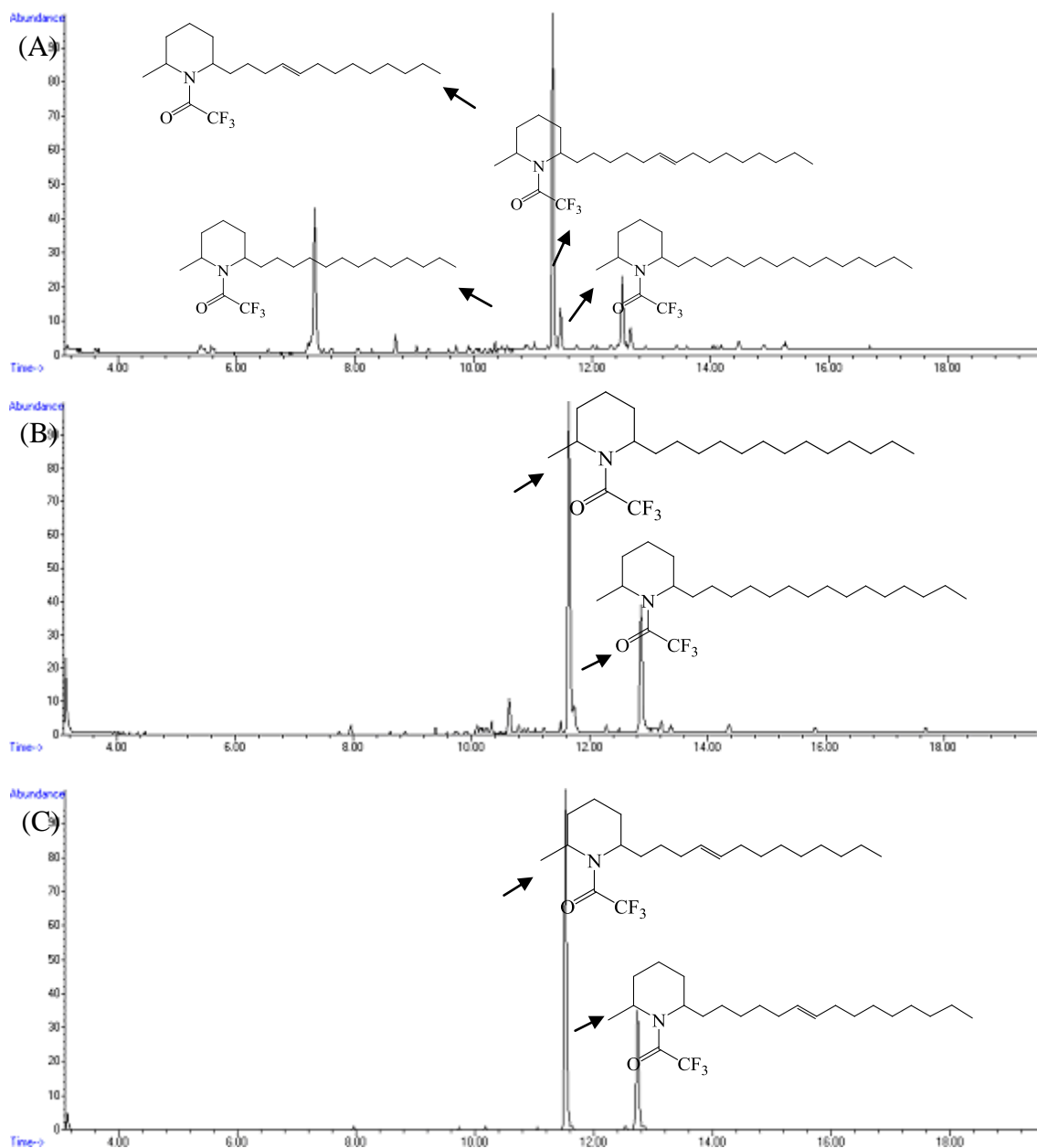
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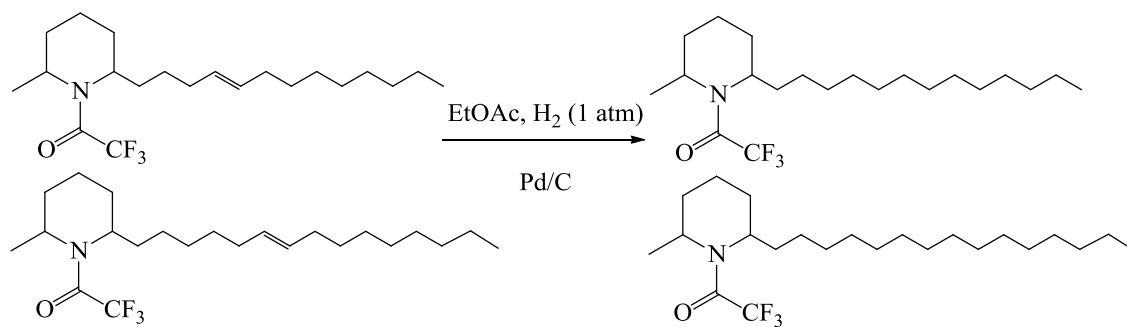


**Figure S1.** Total ion chromatograms (GC-MS, 70 eV). (A) Sample RP06 with natural *S. invicta* venom alkaloids; (B) products of the trifluoroacetylation reaction. Major compound of sample RP06: 2-methyl-6-tridecylpiperidine.

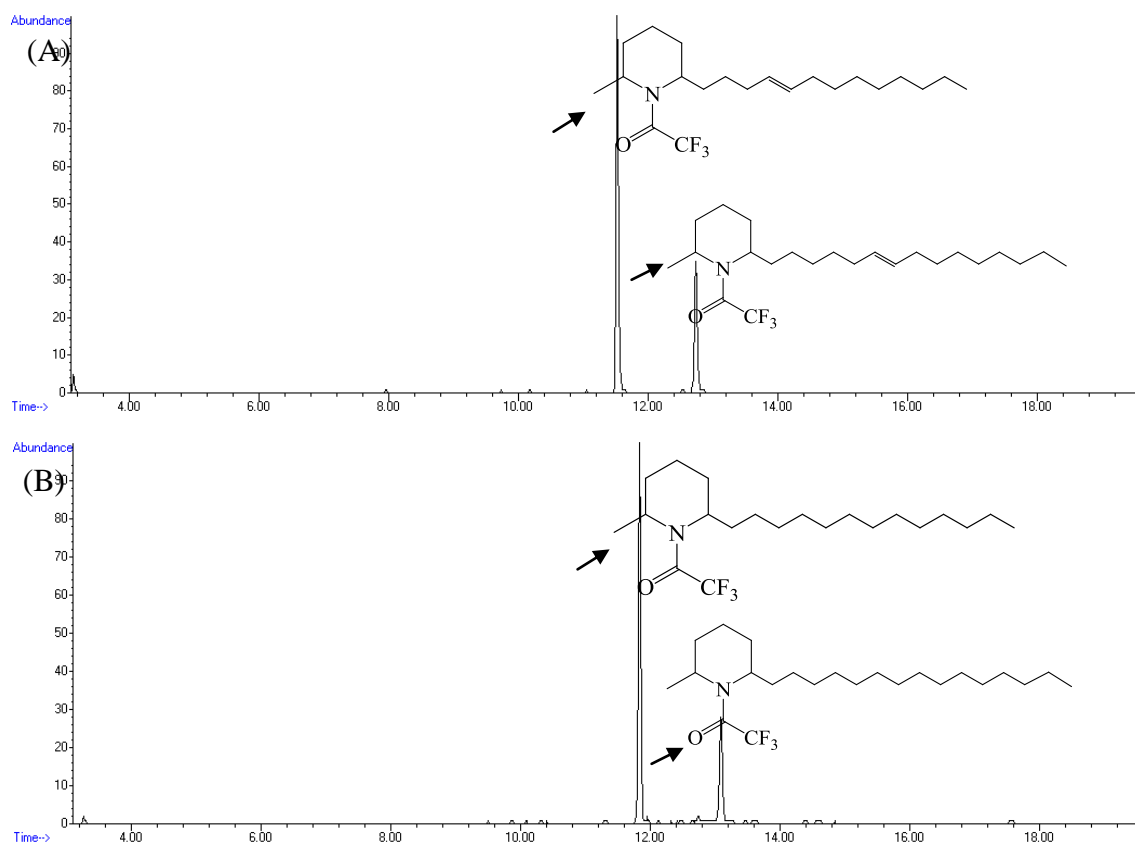
\*e-mail: anita@iqm.unicamp.br



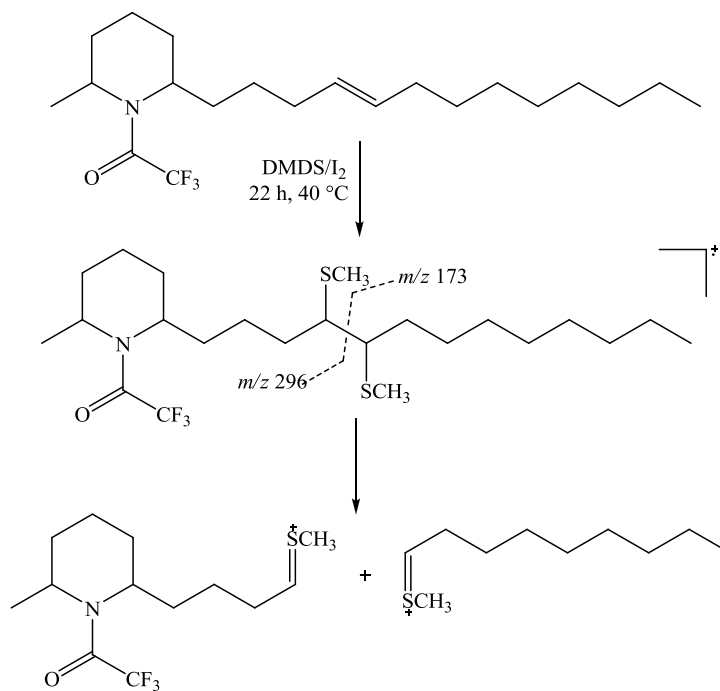
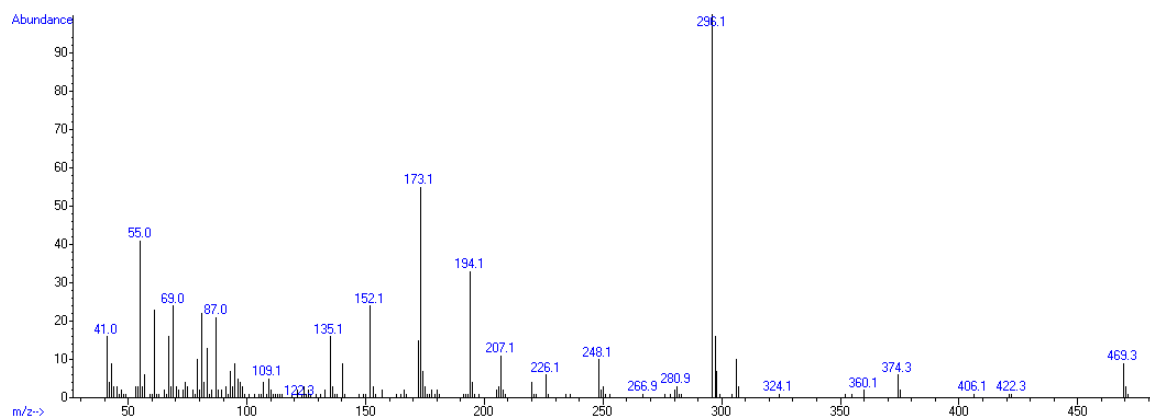
**Figure S2.** Total ion chromatograms (GC-MS, 70 eV). (A) Sample MA01 with natural *S. invicta* venom alkaloids; (B) sample MA01-F3 with saturated alkaloids; (C) sample MA01-AIH with unsaturated alkaloids.



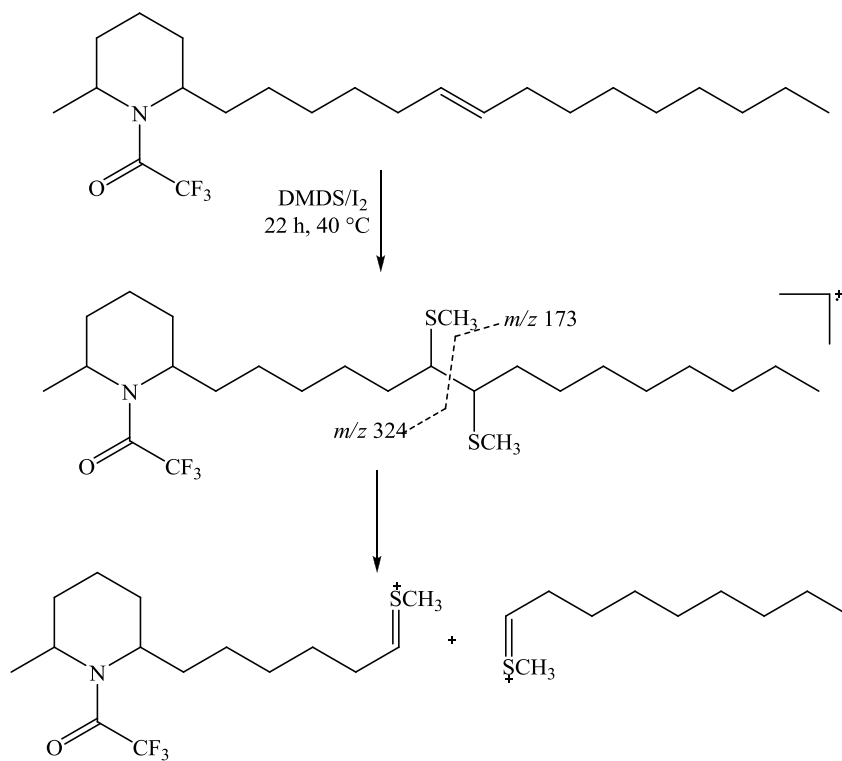
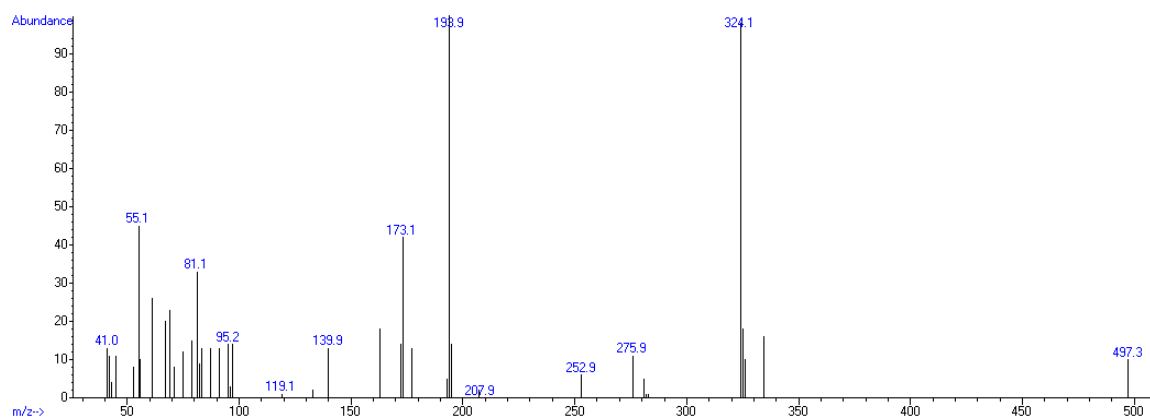
**Scheme S1.** Catalytic hydrogenation reaction of trifluoroacetamides from *Solenopsis* venom alkaloids.



**Figure S3.** Total ion chromatograms (GC-MS, 70 eV). (A) Sample MA01-AIH with unsaturated *S. invicta* venom alkaloids; (B) products of the hydrogenation reaction.



**Figure S4.** EIMS and fragmentation pathway of 2-methyl-6-tridecenylpiperidine DMDS derivatives.



**Figure S5.** EIMS and fragmentation pathway of 2-methyl-6-pentadecenylpiperidine DMDS derivatives.