Acanthoic Acid and other Constituents from the Stem of *Annona amazonica* (Annonaceae)

Maria Lúcia B. Pinheiro,*,a Clahildek M. Xavier,a Afonso D. L. de Souza,a Diego de Moura Rabelo,a Cristiane L. Batista,b Regiane L. Batista,b Emmanoel V. Costa,b Francinete R. Campos,b Andersson Barison,b Rodrigo H. Valdez,c Tânia Ueda-Nakamura and Celso V. Nakamura

c
Departamento de Química, Universidade Federal do Amazonas, 69077-000 Amazonas-AM, Brazil
bDepartamento de Química, Centro Politécnico, Universidade Federal do Paraná, 81530-900 Curitiba-PR, Brazil
cDepartamento de Análises Clínicas, Universidade Estadual de Maringá, 87020-900 Maringá-PR, Brazil

*Figure S1. $^1$H NMR spectrum of acanthoic acid in CDCl$_3$ at 400 MHz.*

*e-mail: lbelem@ufam.edu.br*
Figure S2. $^{13}$C($^1$H) and DEPT 135 NMR spectra of acanthoic acid in CDCl$_3$, at 100 MHz.

Figure S3. $^1$H-$^1$H correlation map from the COSY NMR experiment on acanthoic acid in CDCl$_3$, at 400 MHz.
**Figure S4.** $^1$H-$^1$C one-bond correlation map from the HSQC NMR experiment on acanthoic acid in CDCl$_3$, at 400 and 100 MHz.

**Figure S5.** $^1$H-$^1$C long-range correlation map from the HMBC NMR experiment on acanthoic acid in CDCl$_3$, at 400 and 100 MHz.
Figure S6. EI-MS of acanthoic acid.

Figure S7. $^1$H NMR spectrum of liriodenine in MeOD-$d_4$ at 400 MHz.
Figure S8. $^1$H-$^1$C one-bond correlation map from the HSQC NMR experiment on liriodenine in MeOD-$d_4$ at 400 and 100 MHz.

Figure S9. $^1$H-$^1$C long-range correlation map from the HMBC NMR experiment on liriodenine in MeOD-$d_4$ at 400 and 100 MHz.
Figure S10. ESI-MS of liriodenine in MeOH, positive mode.

Figure S11. ESI-MS/MS of liriodenine in MeOH, positive mode at 50 eV.
Figure S12. \(^1\)H NMR spectrum of cassythicine in MeOD-\(d_4\) at 400 MHz.

Figure S13. \(^{13}\)C\(^1\)H NMR spectrum of cassythicine in MeOD-\(d_4\) at 100 MHz.
Figure S14. $^1$H-$^{13}$C one-bond correlation map from the HSQC NMR experiment on cassythicine in MeOD-$d_4$ at 400 and 100 MHz.

Figure S15. $^1$H-$^{13}$C long-range correlation map from the HMBC NMR experiment on cassythicine in MeOD-$d_4$ at 400 and 100 MHz.
Figure S16. ESI-MS of cassythicine in MeOH, positive mode.

Figure S17. ESI-MS/MS of cassythicine in MeOH, positive mode at 50 eV.
Figure S18. $^1$H NMR spectrum of the mixture of three methyl esters of the fatty acids, oleic, linoleic, and linolenic in CDCl$_3$, at 400 MHz.

Figure S19. $^{13}$C($^1$H) spectrum of the mixture of three methyl esters of the fatty acids, oleic, linoleic, and linolenic in CDCl$_3$, at 100 MHz.
Figure S20. $^1$H NMR spectrum of caryophyllene oxide in CDCl$_3$, at 200 MHz.

Figure S21. $^{13}$C/$^1$H and DEPT 135 NMR spectra of caryophyllene oxide in CDCl$_3$, at 50 MHz.
Figure S22. $^1$H-$^1$H correlation map from COSY NMR experiment of caryophyllene oxide in CDCl$_3$ at 400 MHz.

Figure S23. $^1$H-$^{13}$C one-bond correlation map from the HSQC NMR experiment on caryophyllene oxide in CDCl$_3$ at 400 and 100 MHz.
Figure S24. $^1$H-$^1$C long-range correlation map from the HMBC NMR experiment on caryophyllene oxide in CDCl$_3$ at 400 and 100 MHz.

Figure S25. $^1$H NMR spectrum of $\beta$-sitosterol and stigmasterol mixture in CDCl$_3$ at 400 MHz.
Acanthoic Acid and other Constituents from the Stem of *Annona amazonica* (Annonaceae)  

**Figure S26.** $^{13}$C\{(\text{H})\} NMR spectrum of the $\beta$-sitosterol and stigmasterol mixture in CDCl$_3$ at 100 MHz.

**Figure S27.** $^1$H NMR spectrum of oleic acid in CDCl$_3$ at 400 MHz.
Figure S28. $^1$H and DEPT 135 NMR spectra of oleic acid in CDCl$_3$ at 100 MHz.