

Conformational Analysis of Phloroglucinols from *Hypericum Brasiliense* by using X-ray Diffraction and Molecular Modeling

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Table S1. Summary of the crystal structure data collection and refinement for japonicin A (1), uliginosin B (2) and isouliginosin B (3)

| Identification code | Japonicin A (1) | Uliginosin B (2) | Isouliginosin B (3) |
|---------------------------------|--|---|---|
| Empirical formula | C ₂₅ H ₃₂ O ₈ | C ₂₈ H ₃₄ O ₈ | C ₂₈ H ₃₄ O ₈ |
| Formula weight | 460.51 | 498.55 | 498.55 |
| Temperature | 150(2) K | 150(2) K | 150(2) K |
| Wavelength | 1.5418 Å | 1.5418 Å | 1.5418 Å |
| Crystal system | Monoclinic | Monoclinic | Triclinic |
| Space group | P 21/n | P 21/n | P -1 |
| Unit cell dimensions | $a = 9.2461(4)$ Å $b = 17.8198(6)$ Å $c = 28.8240(10)$ Å $\alpha = 90^\circ$. $\beta = 90^\circ$. $\gamma = 90^\circ$ | $a = 10.4085(4)$ Å $b = 9.1035(3)$ Å $c = 27.5920(10)$ Å $\alpha = 90.000(3)^\circ$. $\beta = 99.070(3)^\circ$. $\gamma = 90.000(3)^\circ$. | $a = 10.4944(4)$ Å $b = 10.7537(3)$ Å $c = 12.3616(4)$ Å $\alpha = 103.610(3)^\circ$. $\beta = 110.336(3)^\circ$. $\gamma = 93.969(3)^\circ$ |
| Volume | $4749.1(3)$ Å ³ | $2581.76(16)$ Å ³ | $1253.80(8)$ Å ³ |
| Z | 8 | 4 | 2 |
| Density (calculated) | 1.288 Mg/m ³ | 1.283 Mg/m ³ | 1.321 Mg/m ³ |
| Absorption coefficient | 0.792 mm ⁻¹ | 0.77 mm ⁻¹ | 0.793 mm ⁻¹ |
| F(000) | 1968 | 1064 | 532 |
| Crystal size | 0.39 x 0.11 x 0.06 mm ³ | 0.49 x 0.14 x 0.03 mm ³ | 0.38 x 0.22 x 0.09 mm ³ |
| Theta range for data collection | 3.07 to 62.48°. | 3.24 to 62.68° | 3.97 to 62.89° |
| Index ranges | -10<= h <=10, -20<= k <=20, -33<= l <=33 | -11<= h <=11, -10<= k <=10, -31<= l <=31 | -12<= h <=11, -12<= k <=12, -14<= l <=14 |
| Reflections collected | 39758 | 6833 | 32807 |

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Table S1. continuation

| Identification code | Japonicin A (1) | Uliginosin B (2) | Isouliginosin B (3) |
|-----------------------------------|---|---|---|
| Independent reflections | 3776 [R(int) = 0.0330] | 6973 [R(int) = 0.0000] | 3958 [R(int) = 0.0331] |
| Completeness to theta = 62.89° | 99.8 % | 98.5 % | 98.0 % |
| Absorption correction | Analytical | Analytical | Semi-empirical from equivalents |
| Max. and min. transmission | 0.962 and 0.829 | 0.937 and 0.552 | 0.9338 and 0.7521 |
| Refinement method | Full-matrix least-squares on F ² | Full-matrix least-squares on F ² | Full-matrix least-squares on F ² |
| Data / restraints / parameters | 3776 / 0 / 309 | 6973 / 12 / 327 | 3958 / 0 / 342 |
| Goodness-of-fit on F ² | 1.060 | 1.059 | 1.042 |
| Final R indices [I>2sigma(I)] | R1 = 0.0510, wR2 = 0.1412 | R1 = 0.0599, wR2 = 0.1644 | R1 = 0.0381, wR2 = 0.1058 |
| R indices (all data) | R1 = 0.0627, wR2 = 0.1490 | R1 = 0.0902, wR2 = 0.1767 | R1 = 0.0463, wR2 = 0.1131 |
| Extinction coefficient | 0.00008(4) | 0.00009(7) | 0.0009(3) |
| Largest diff. peak and hole | 0.590 and -0.247 e.Å ⁻³ | 0.269 and -0.266 e.Å ⁻³ | 0.307 and -0.211 e.Å ⁻³ |

Uliginosin refinement performed on data obtained from a twinned sample. For japonicin A $w=1/[\sqrt{s^2(F_o^2)+(0.0755P)^2+3.4186P}]$ where $P=(F_o^2+2F_c^2)/3$, for uliginosin $w=1/[\sqrt{s^2(F_o^2)+(0.0574P)^2+0.2333P}]$ where $P=(F_o^2+2F_c^2)/3$ and for isouliginosin $w=1/[\sqrt{s^2(F_o^2)+(0.0642P)^2+0.4656P}]$ where $P=(F_o^2+2F_c^2)/3$.