Supporting Information

Monodictyochrome A and B, Dimeric Xanthone Derivatives from the Marine Algicolous Fungus *Monodictys putredinis*

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Figure S1. Important ^{1}H-^{1}H COSY and ^{1}H-^{13}C long range (HMBC) correlations of compound **1** and **2**.

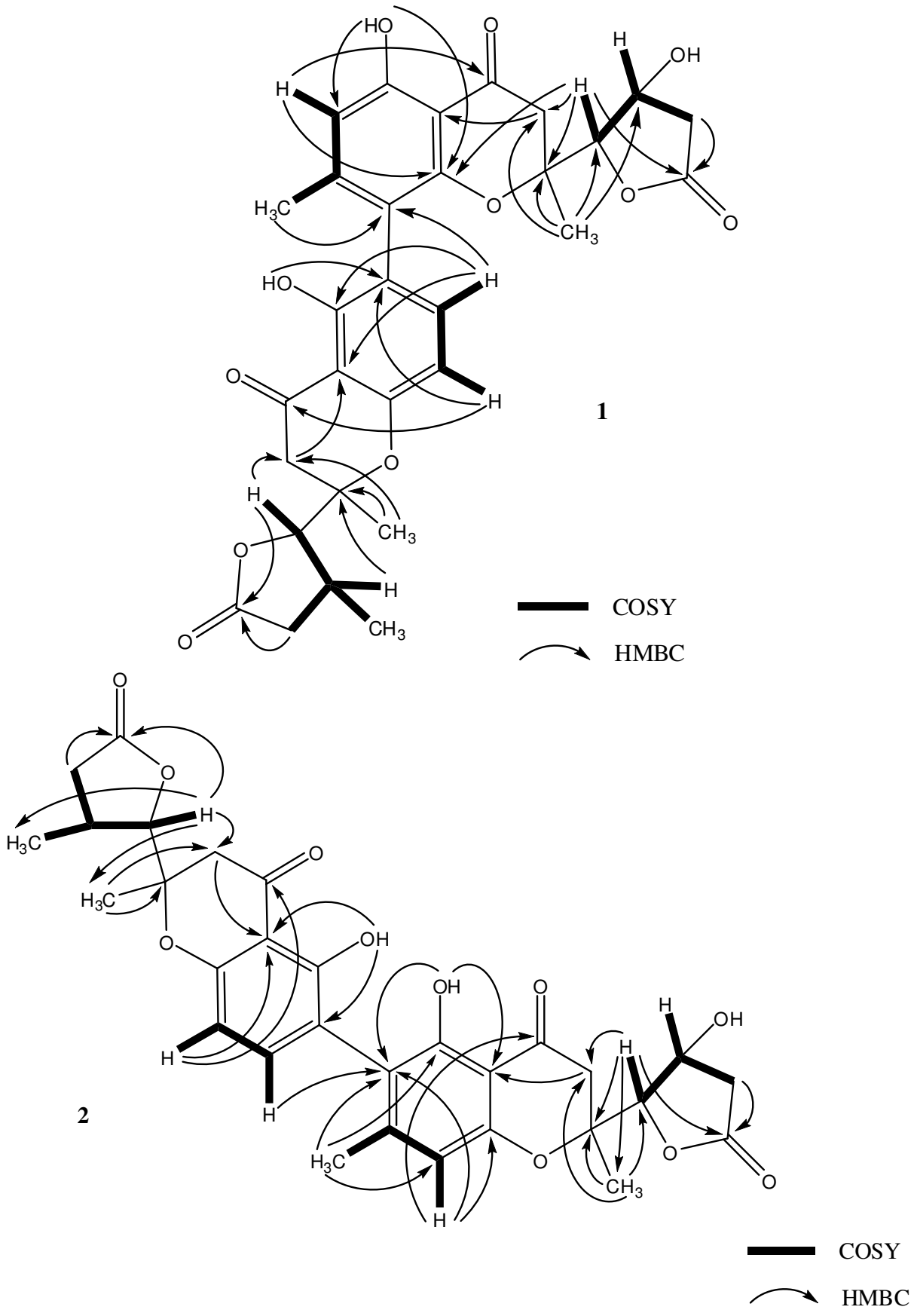


Figure S2. Proposed biosynthesis for compound **1** and **2**.

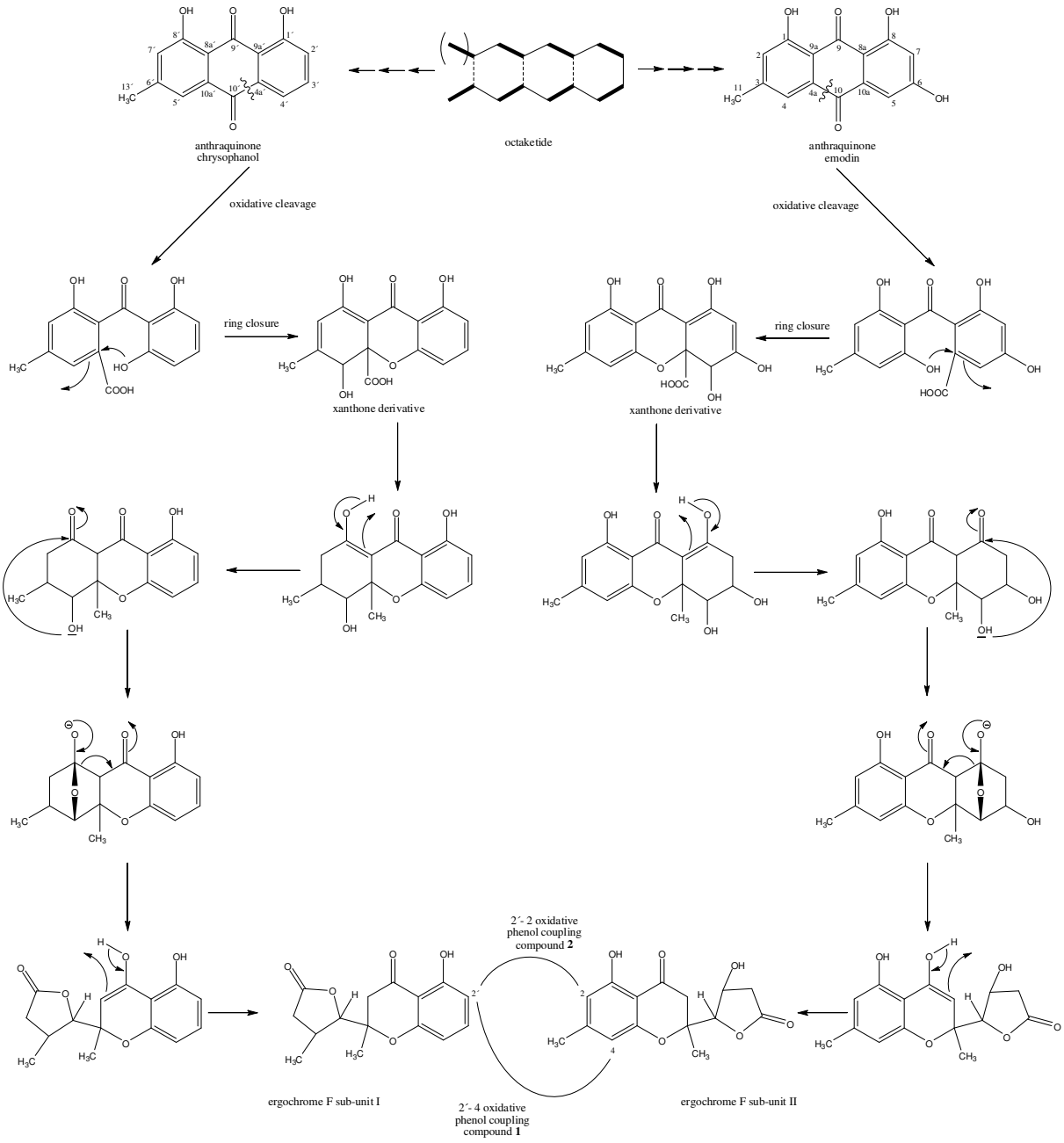
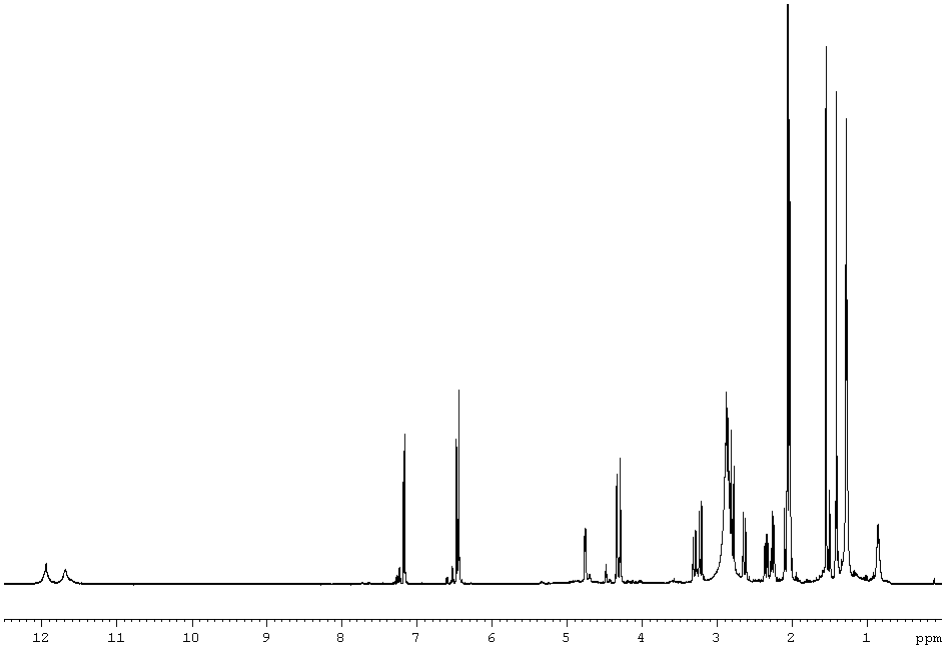
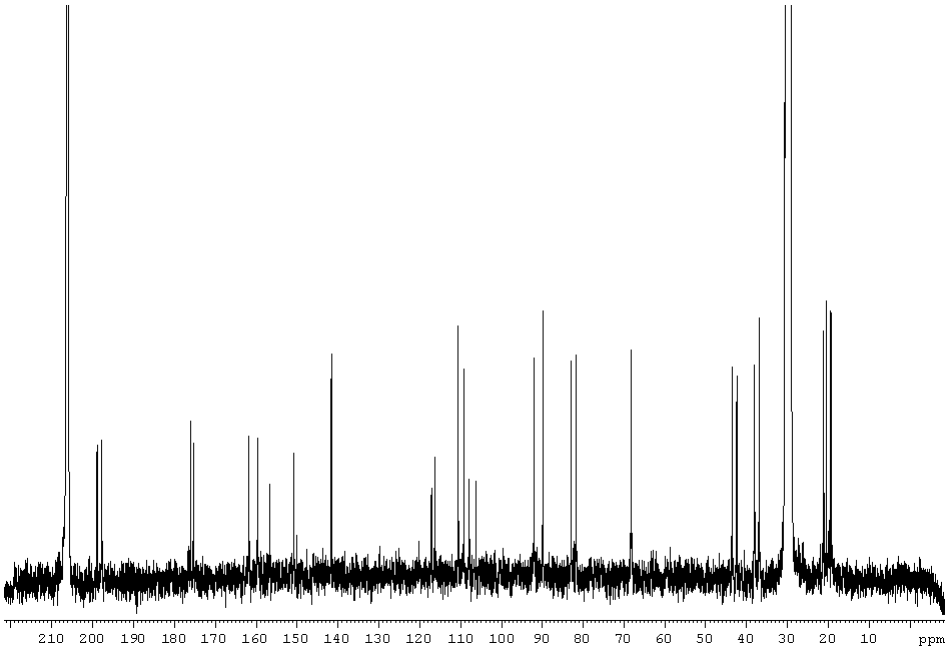


Figure S3. 1D and 2D NMR spectra of compound **1.**

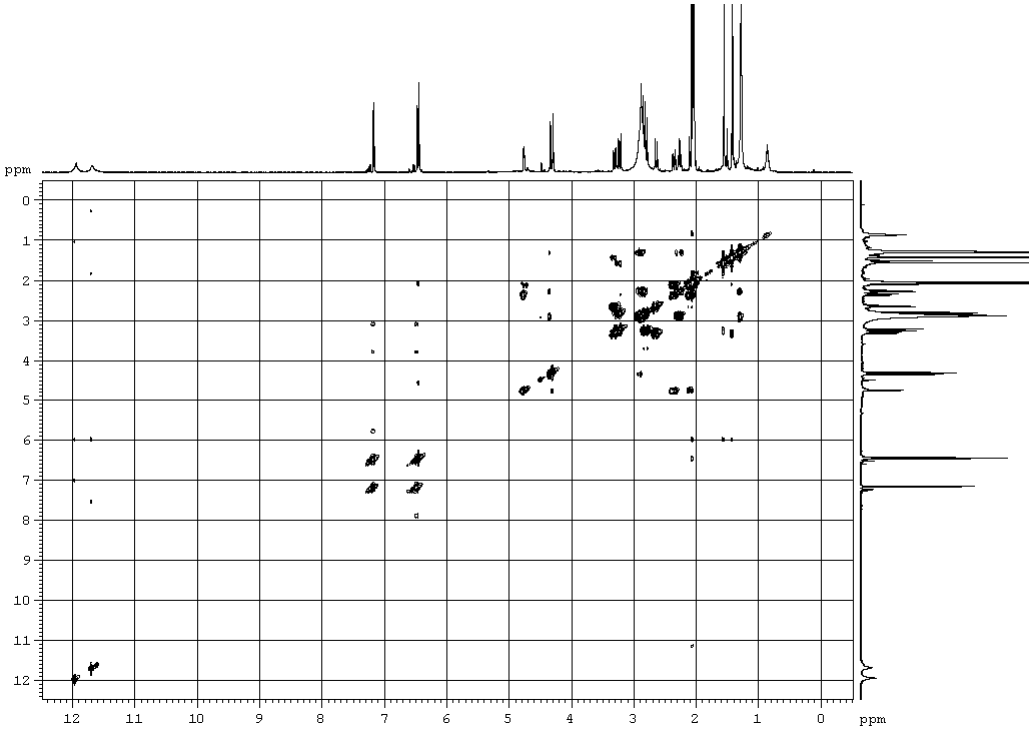
^{1}H NMR spectrum (500 MHz in acetone-d_6) of the new compound **1**.



^{13}C NMR spectrum (300 MHz in acetone-d_6) of the new compound **1**.



^{1}H,^{1}H-COSY spectrum (300 MHz in acetone-d_6) of the new compound **1**.



^{1}H,^{13}C-HMBC spectrum (300 MHz in acetone-d_6) of the new compound **1**.

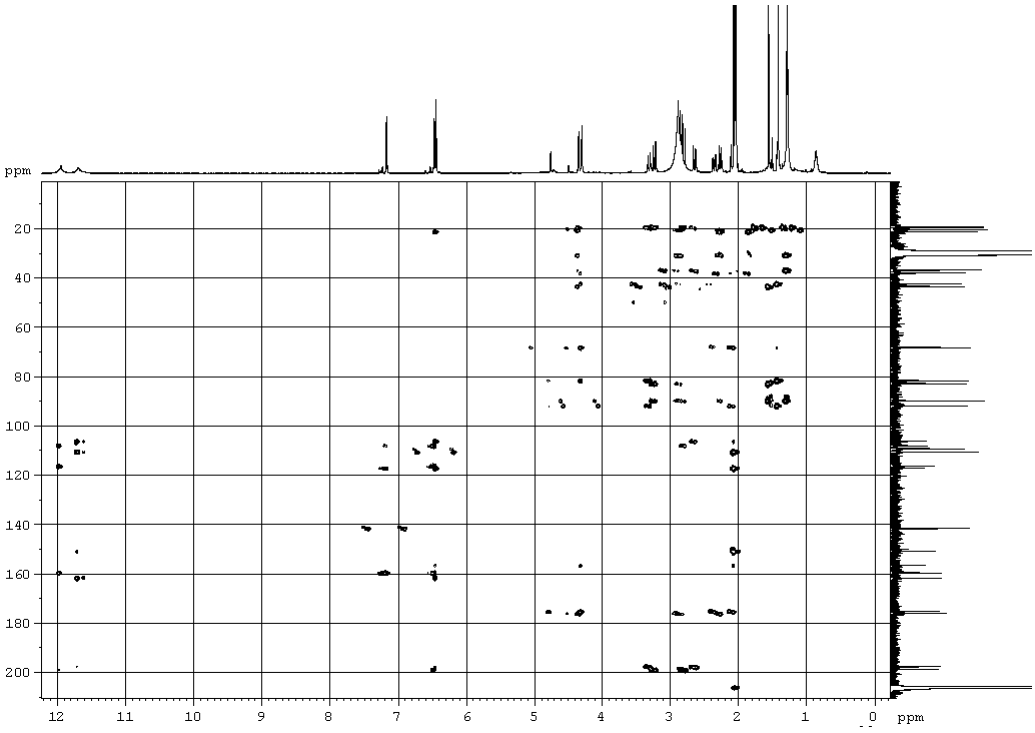
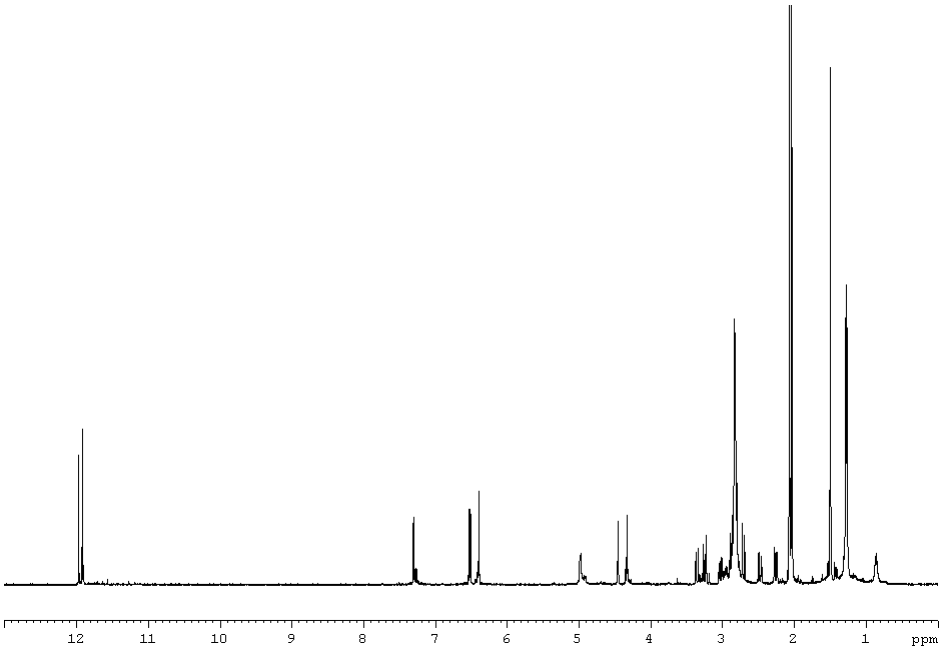
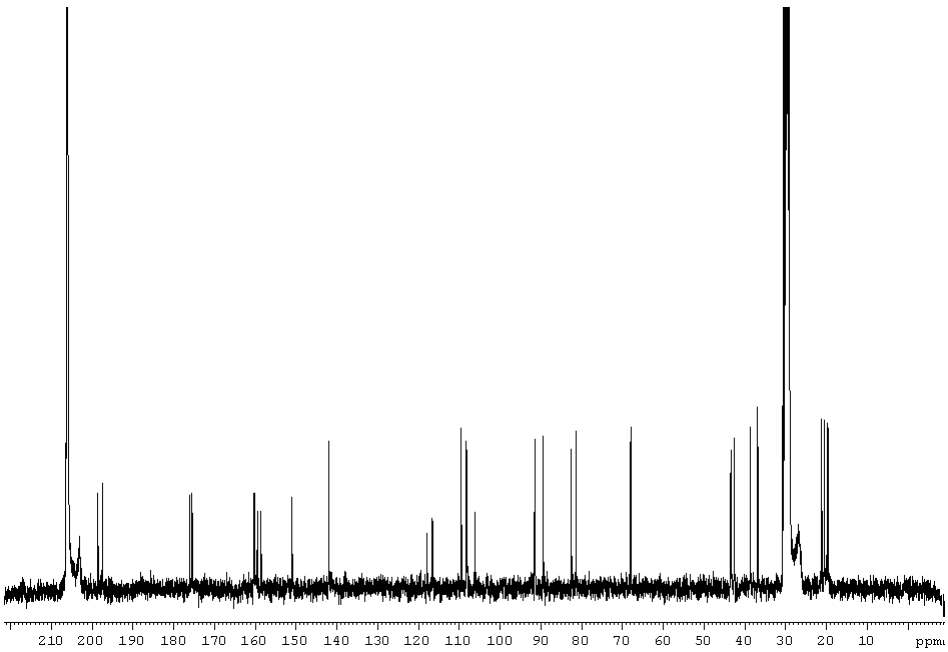


Figure S4. 1D and 2D NMR spectra of compound **2.**

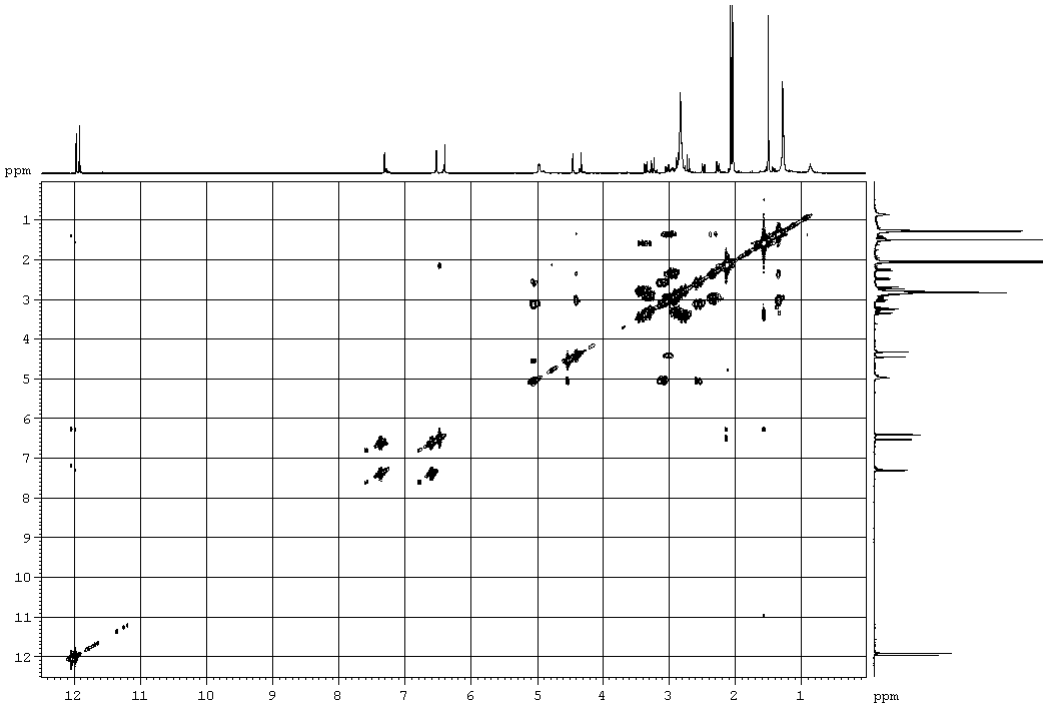
^{1}H NMR spectrum (500 MHz in acetone-d_6) of the new compound **2**.



^{13}C NMR spectrum (300 MHz in acetone-d_6) of the new compound **2**.



^{1}H,^{1}H-COSY spectrum (300 MHz in acetone-d_6) of the new compound **2**.



^{1}H,^{13}C-HMBC spectrum (300 MHz in acetone-d_6) of the new compound **2**.

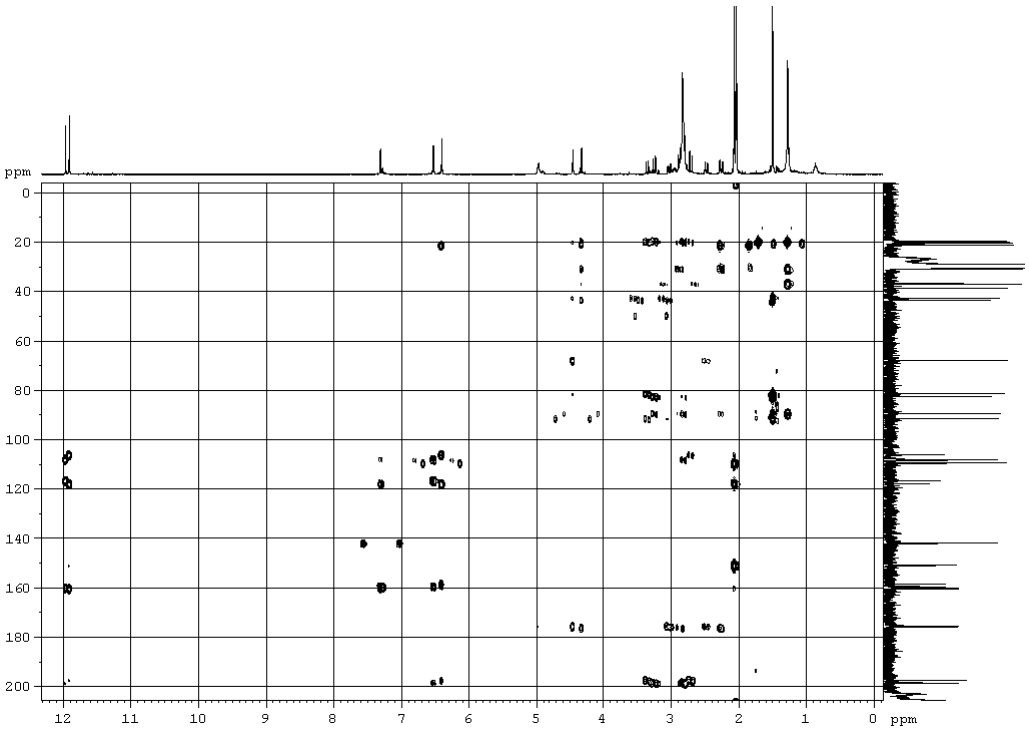
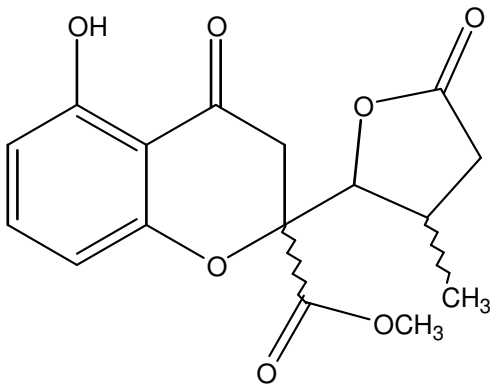
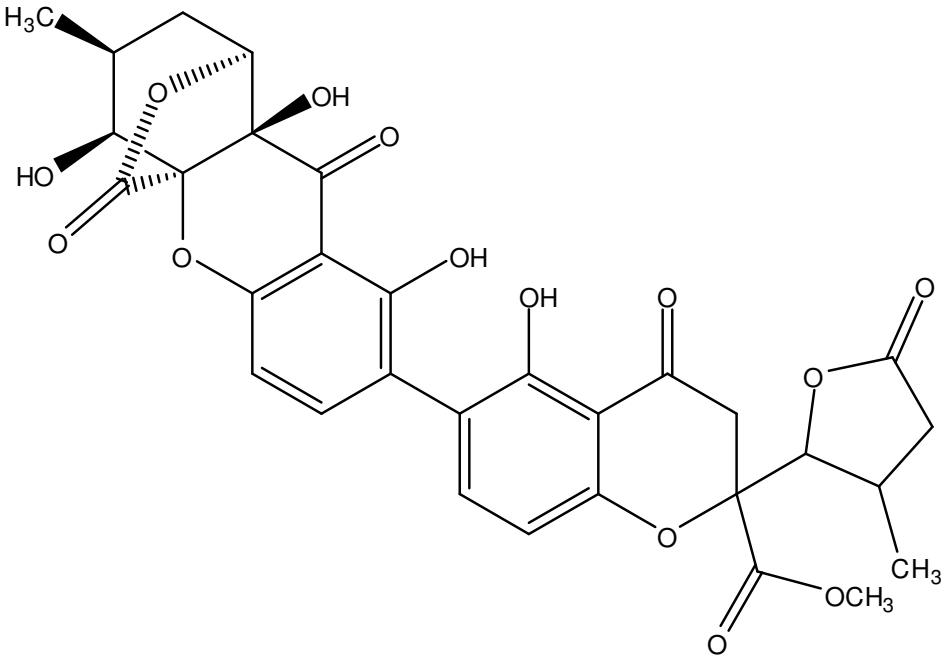


Figure S5. Structures of fungal metabolites related to **1** and **2**.

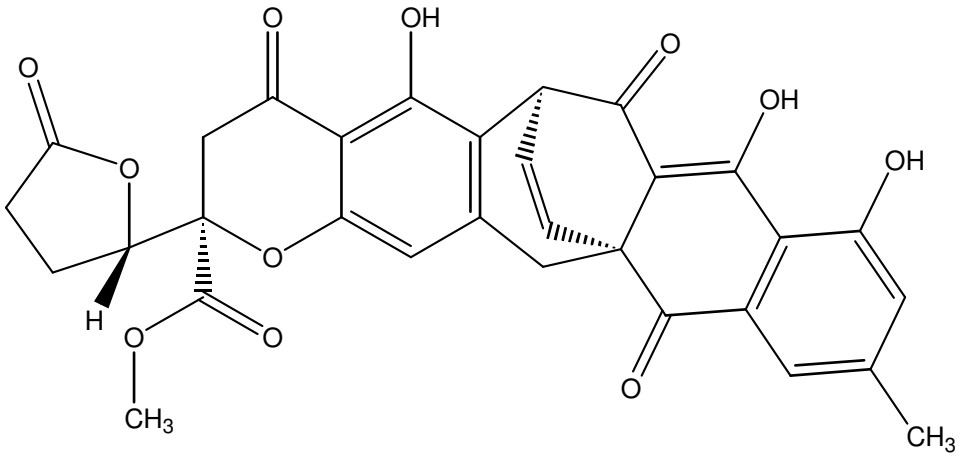
ergochrome F unit [15]:



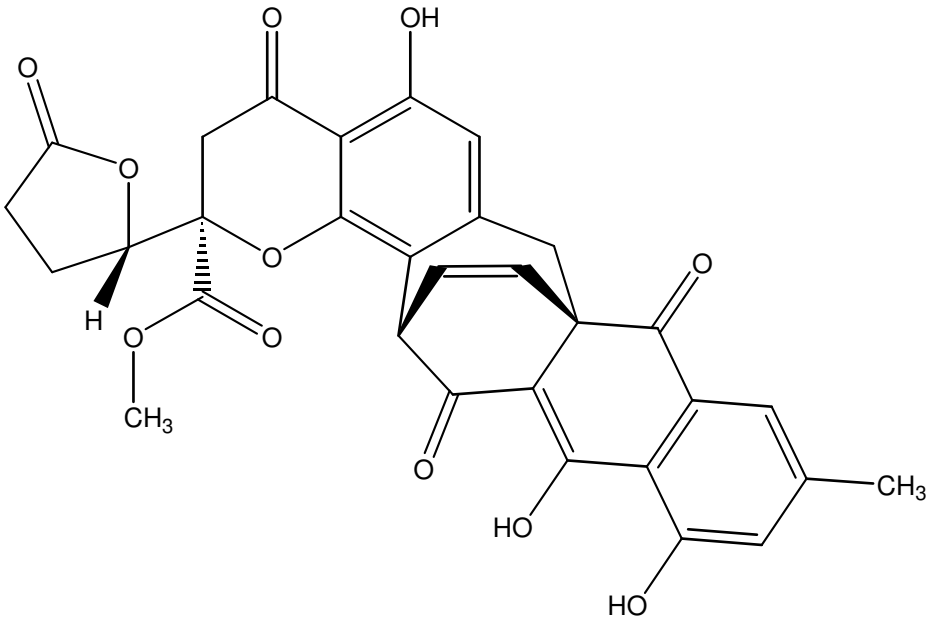
ergoxanthin [15]:



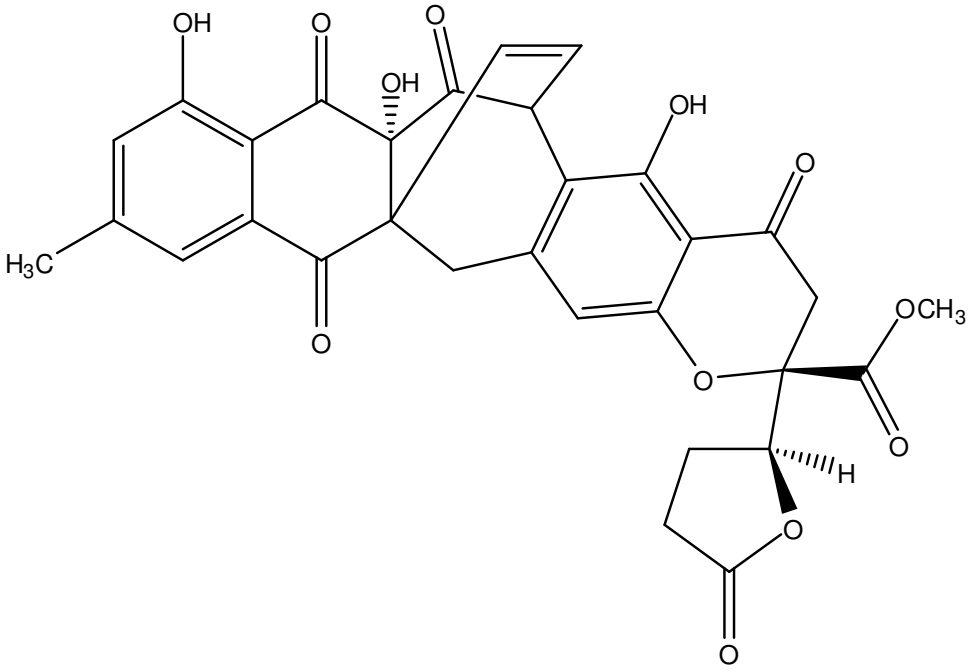
xanthoquinodin A3 [16]:



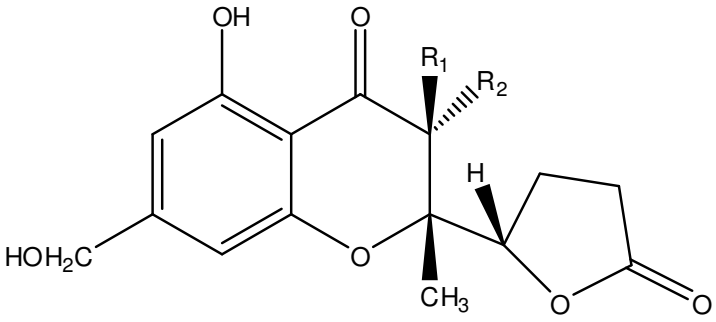
xanthoquinodin B3 [16]:



chaetomanone [17]:



lachnone 3, 4 and 5 [18]:



3: $R_1 = R_2 = H$

4: $R_1 = OH$; $R_2 = H$

5: $R_1 = -CH_2COCH_3$; $R_2 = OH$

Figure S6. Dose-dependent inhibition of aromatase activity by compounds **1** and **2**. Ketokonazole was used as a positive control substance with an IC_{50} value of 0.8 ± 0.3 µM. Aromatase activity was measured using human recombinant aromatase (human CYP 19 + P450 reductase supersomes) and *O*-benzylfluorescein benzyl ester as a substrate.