Supporting Information for

Bionectriol A, a Polyketide Glycoside from the Fungus *Bionectria* sp. Associated with the Fungus-Growing Ant, *Apterostigma dentigerum*

Elizaveta Freinkman,[1] Dong-Chan Oh,[2] Jarrod J. Scott,[3] Cameron R. Currie,[3] and Jon Clardy[1,2]*

[1]*Chemical Biology Graduate Program, Harvard Medical School, Boston, MA 02115*

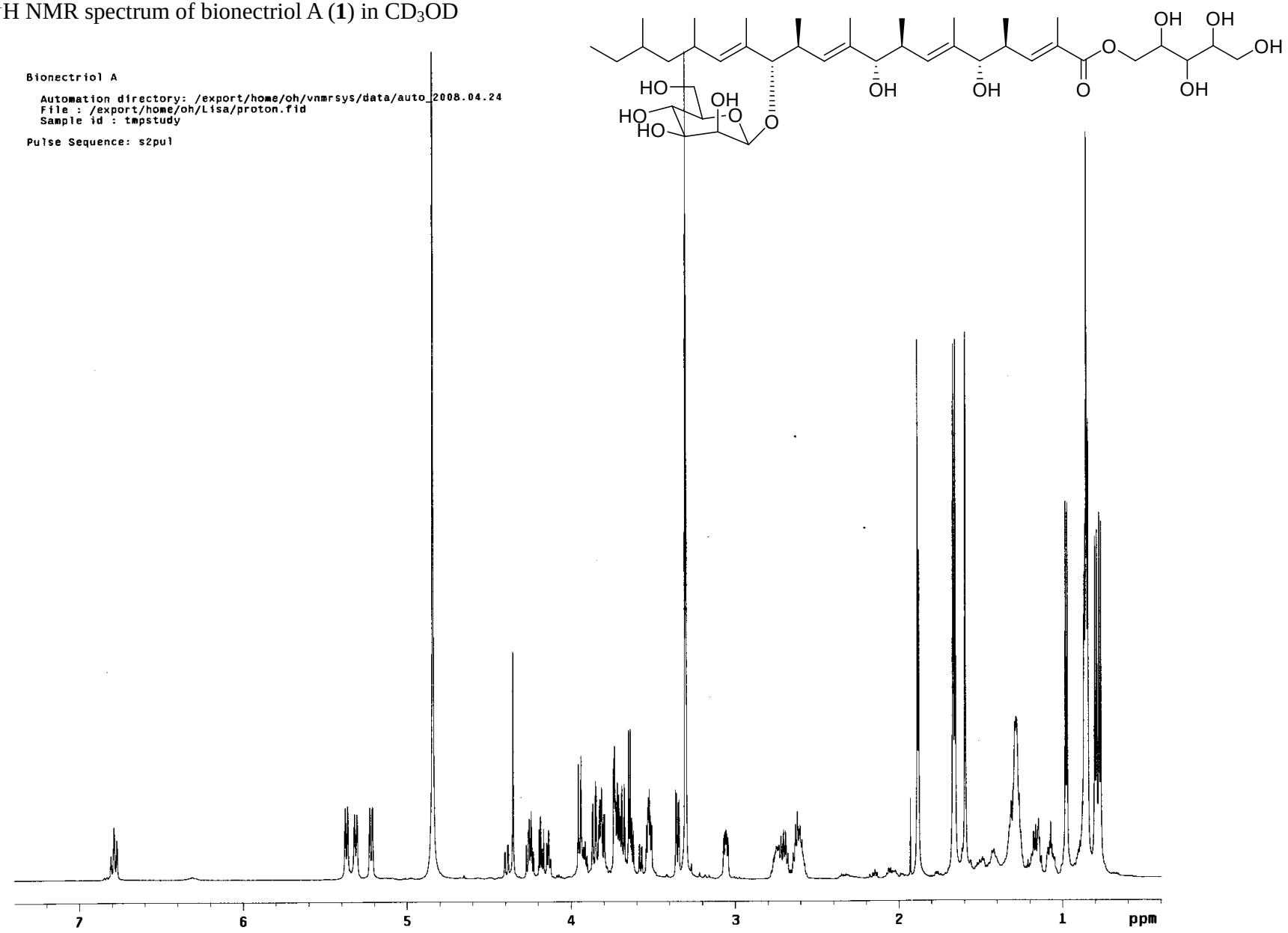
[2]*Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, Boston, MA 02115*

[3]*Department of Bacteriology, University of Wisconsin-Madison, Madison, WI 53706*

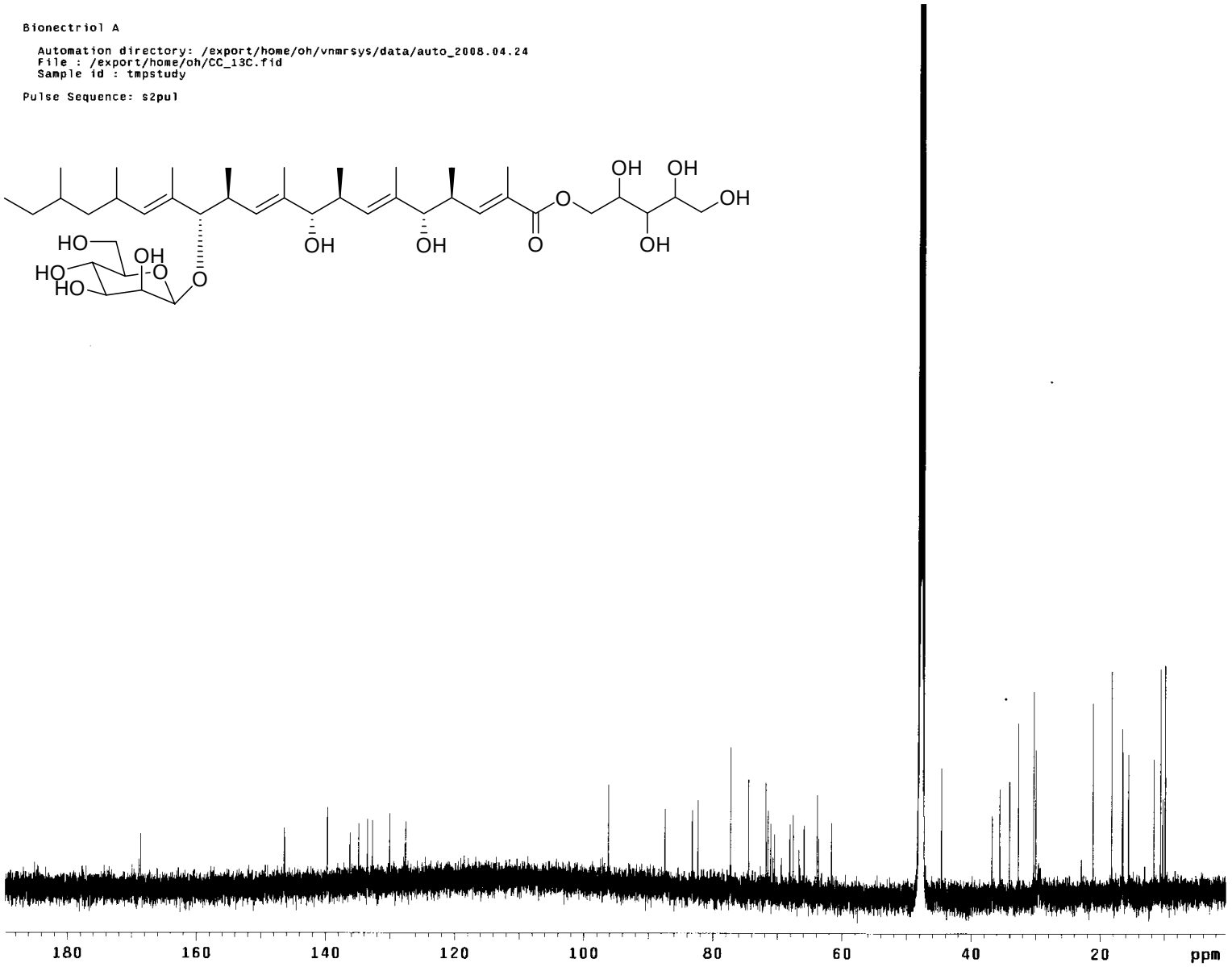
*Corresponding author: jon_clardy@hms.harvard.edu

Table of Contents

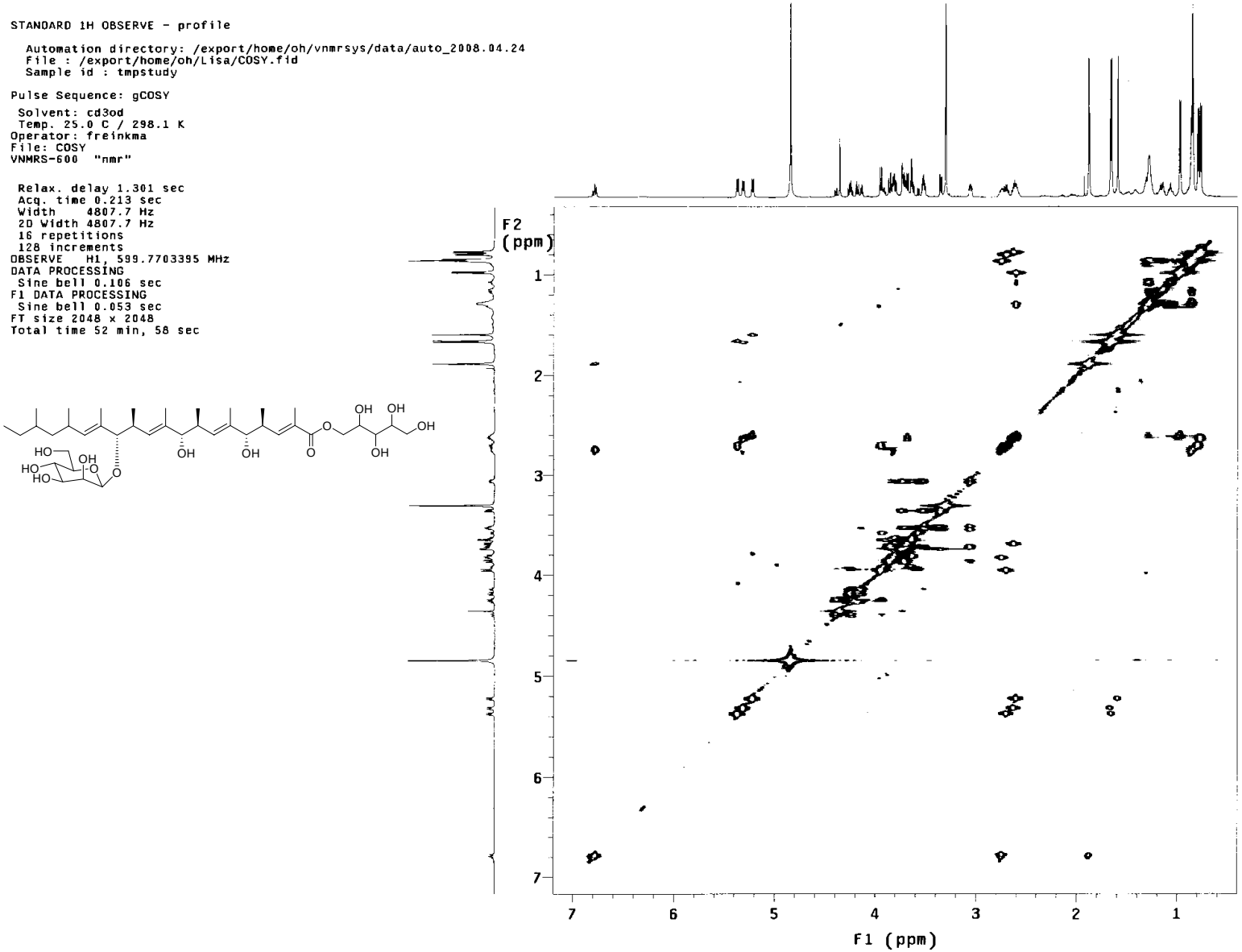
^{1}H NMR spectrum of bionectriol A (**1**) in CD_3OD



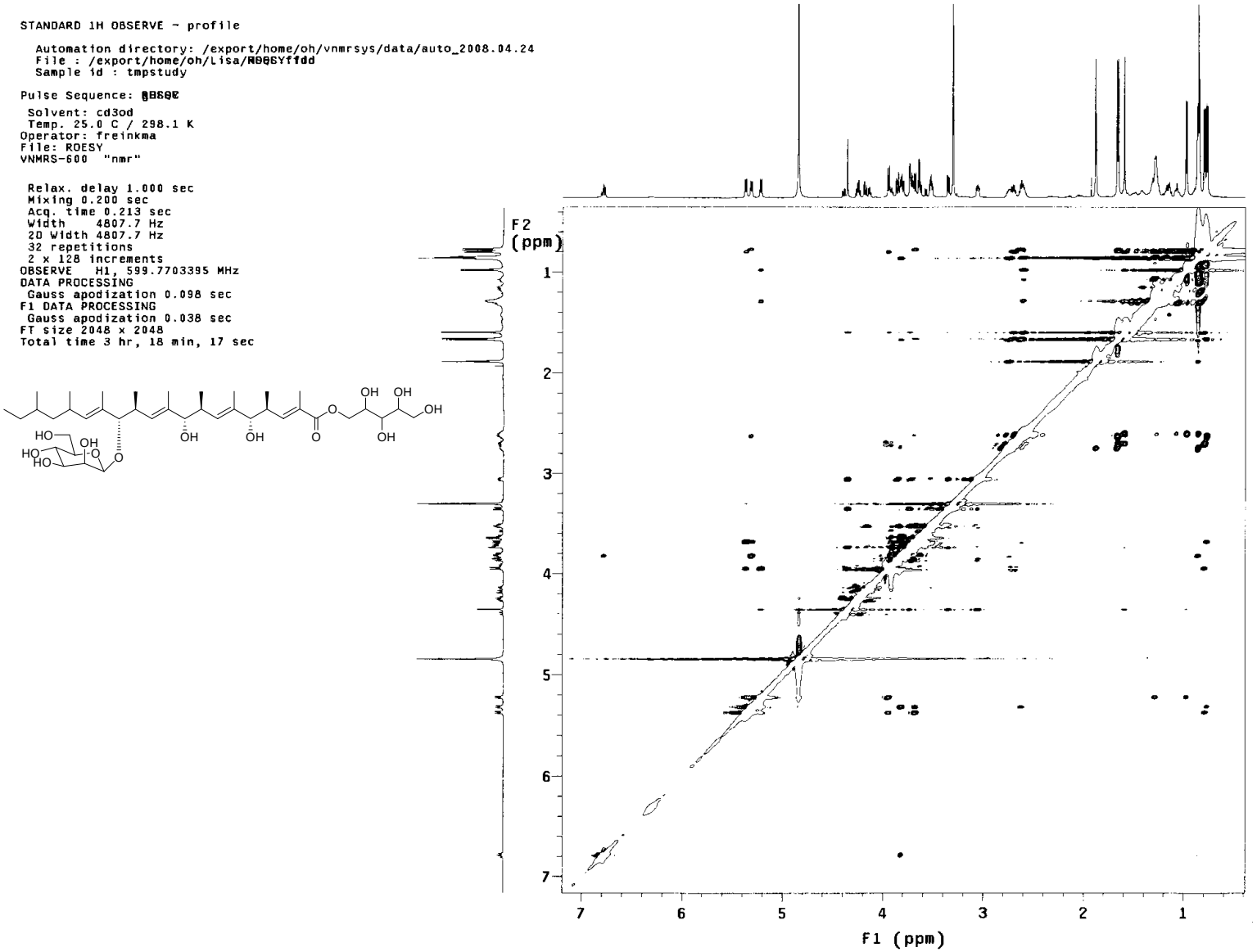
^{13}C NMR spectrum of bionectriol A (**1**) in CD_3OD



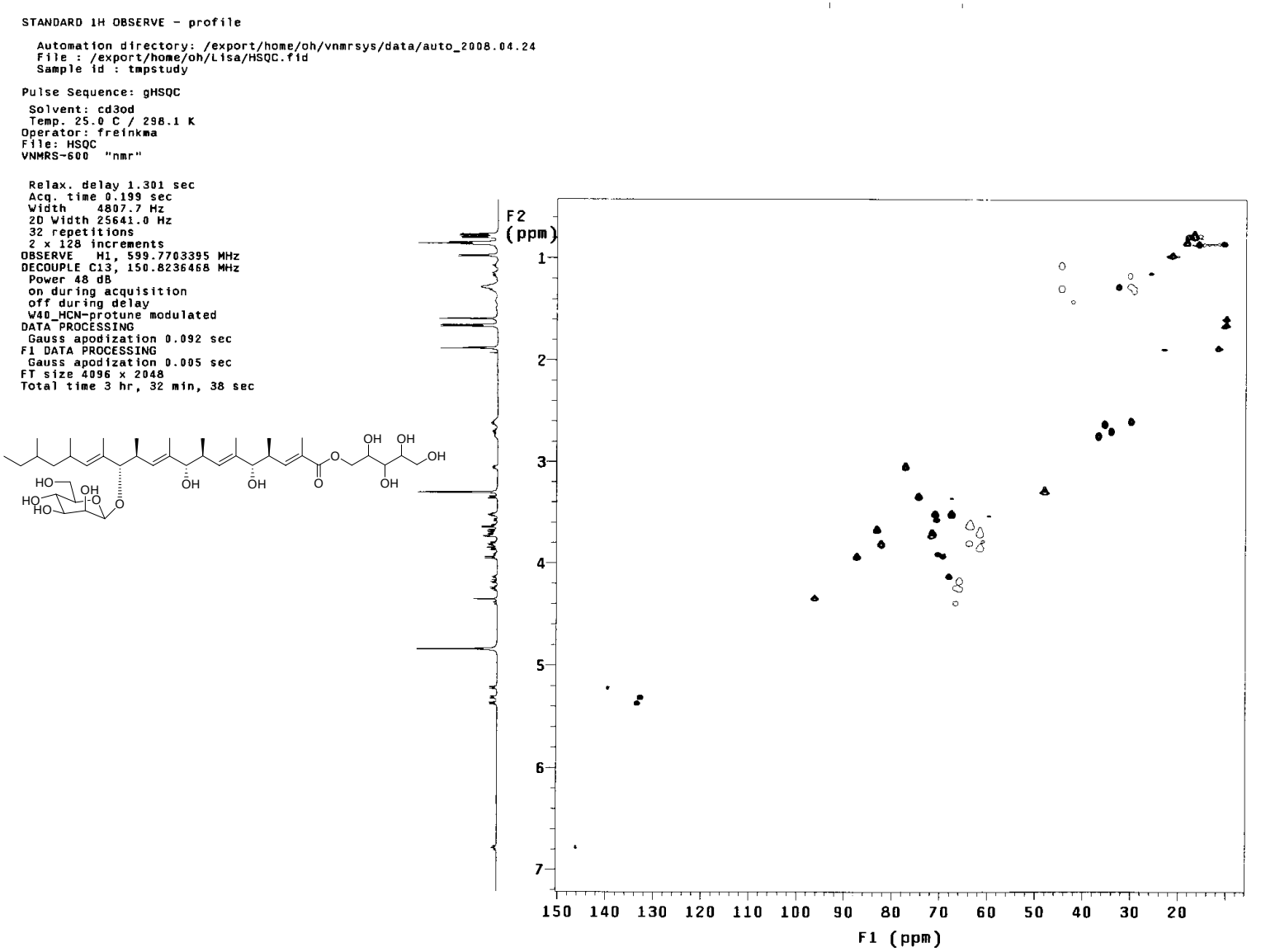
gCOSY NMR spectrum of bionectriol A (**1**) in CD_3OD



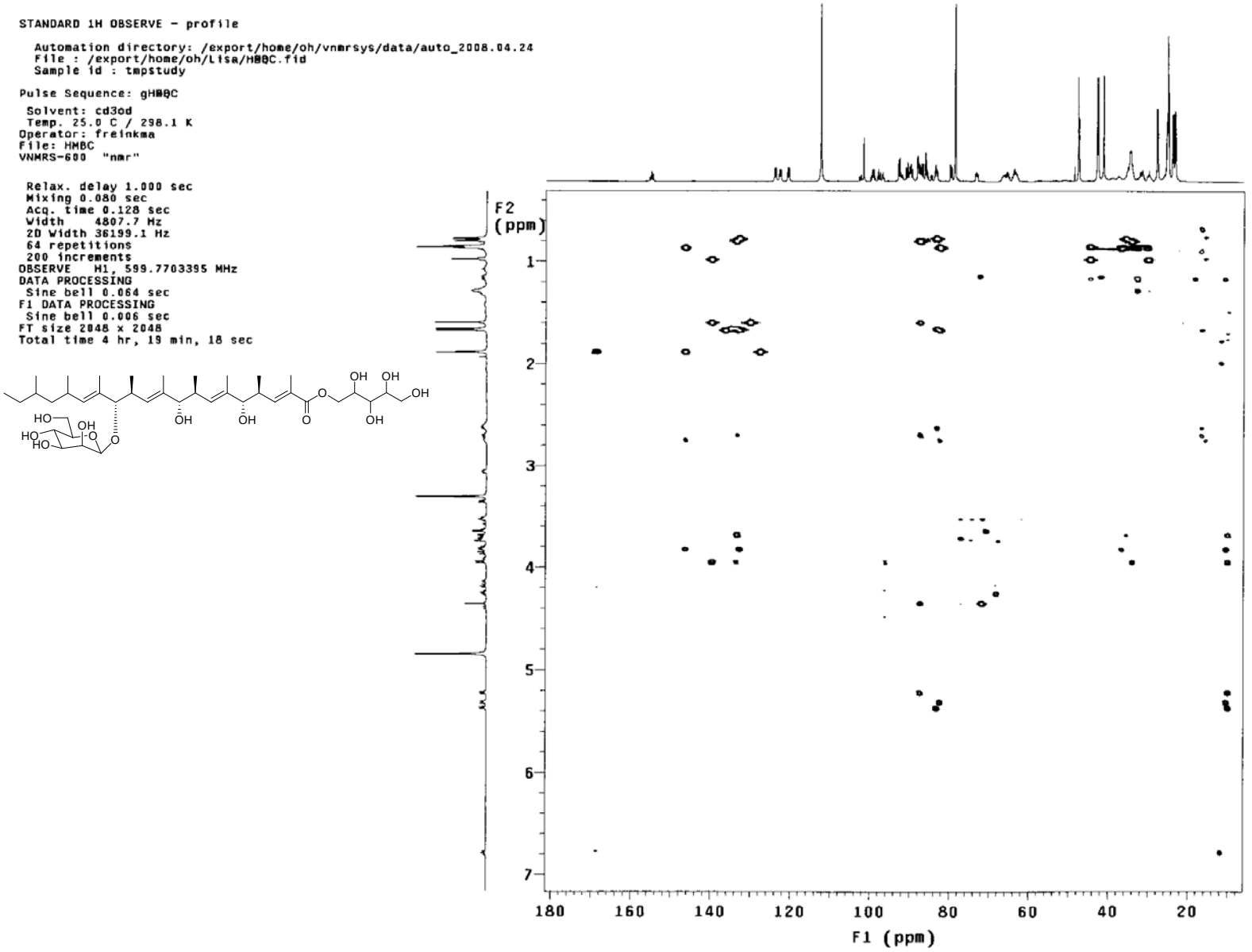
ROESY NMR spectrum of bionectriol A (**1**) in CD_3OD

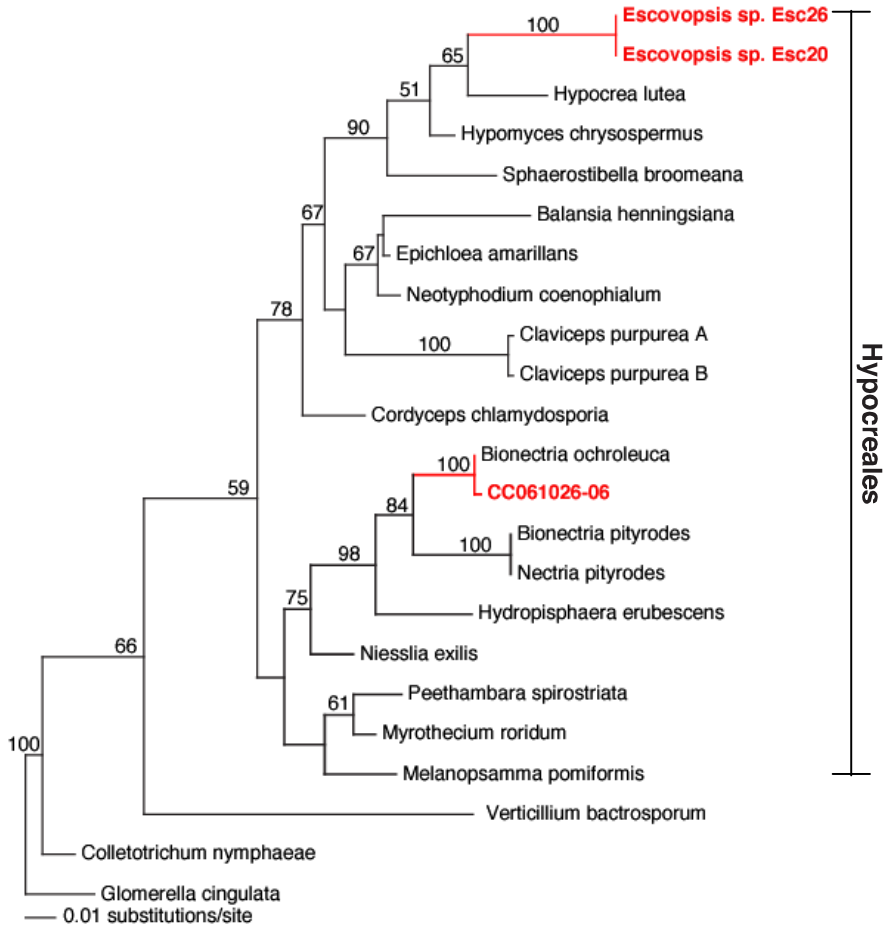


gHSQC NMR spectrum of bionectriol A (**1**) in CD_3OD



gHMBC NMR spectrum of bionectriol A (**1**) in CD_3OD





S8: Molecular phylogeny for the fungal strain CC061026-06. A maximum likelihood (ML) phylogenetic analysis of ~555 base-pairs of 28S rRNA gene sequences from 22 representative members of Hypocreomycetidae (Ascomycota), 19 of which were from the order Hypocreales. The remaining three (3) taxa were used as an outgroup for the analysis. Branch numbers represent bootstrap values for 100 pseudoreplicates under maximum likelihood analysis. Values below 50 are not included. Strong bootstrap support indicates that CC061026-06 (shown in red)

is most closely related to *Bionectria ochroleuca* and sister to *Bionectria pityrodes* and *Nectria pityrodes*. As part of this analysis we also included two strains of the pathogen known to infect the fungal gardens of Apterotigma ants, *Escovopsis* sp. (*Escovopsis* sp. Esc26 and *Escovopsis* sp. Esc20, also in red). Our analysis indicates that CC061026-06 is distantly related to the pathogen *Escovopsis* and thus we cannot be certain of its role in the system at this time.