

Electronic Supporting Information

Organocatalysis by Bimacrocyclic NHCs: Unexpected Formation of a Cyclic Hemiacetal Instead of a γ -Butyrolactone

Ole Winkelmann,^a Christian Näther^b and Ulrich Lüning*^a

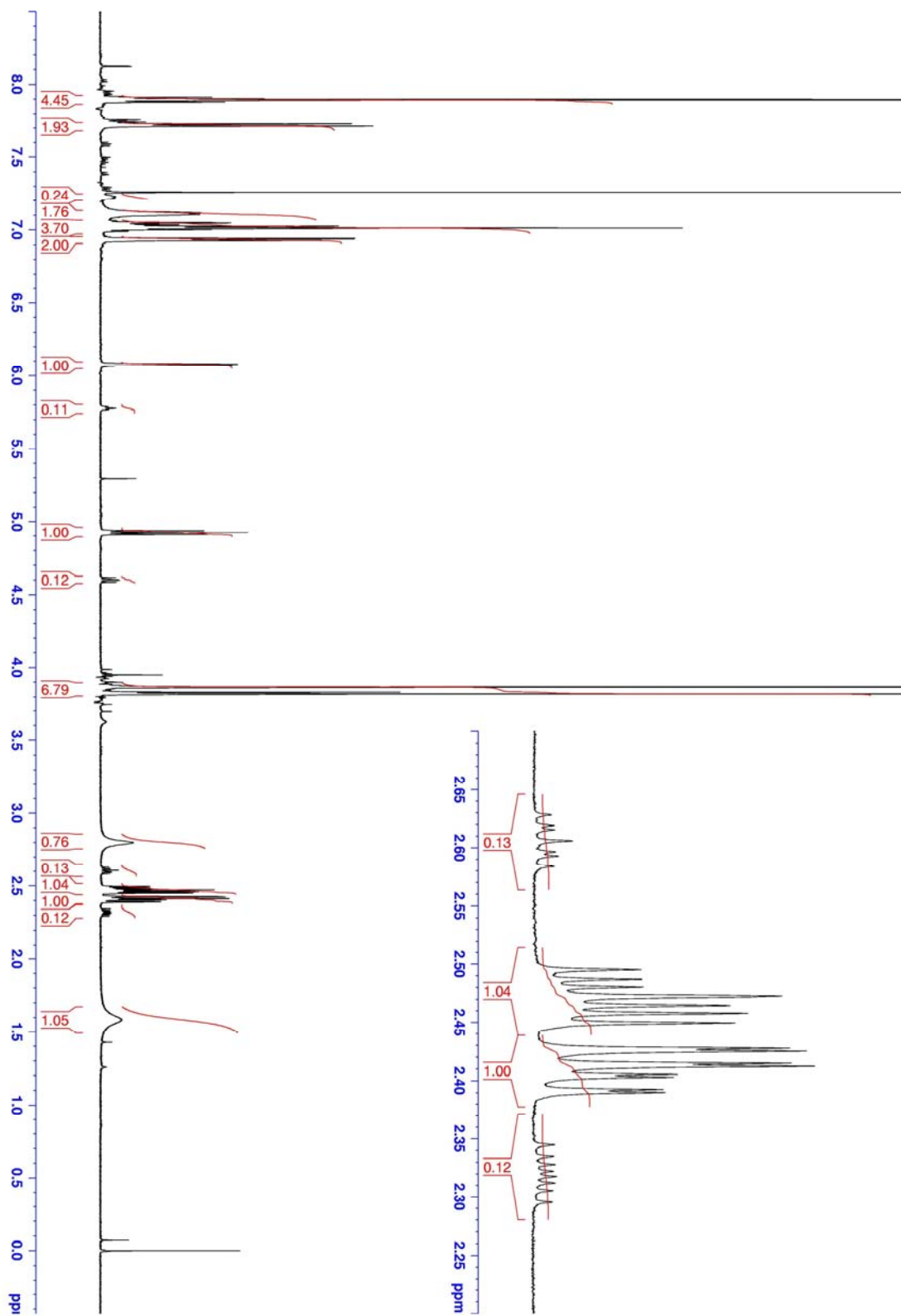
^a *Otto-Diels-Institut für Organische Chemie, Christian-Albrechts-Universität zu Kiel, Germany. E-mail: luening@oc.uni-kiel.de*

^b *Institut für Anorganische Chemie der Christian-Albrechts-Universität zu Kiel, Germany. E-mail: cnaether@ac.uni-kiel.de*

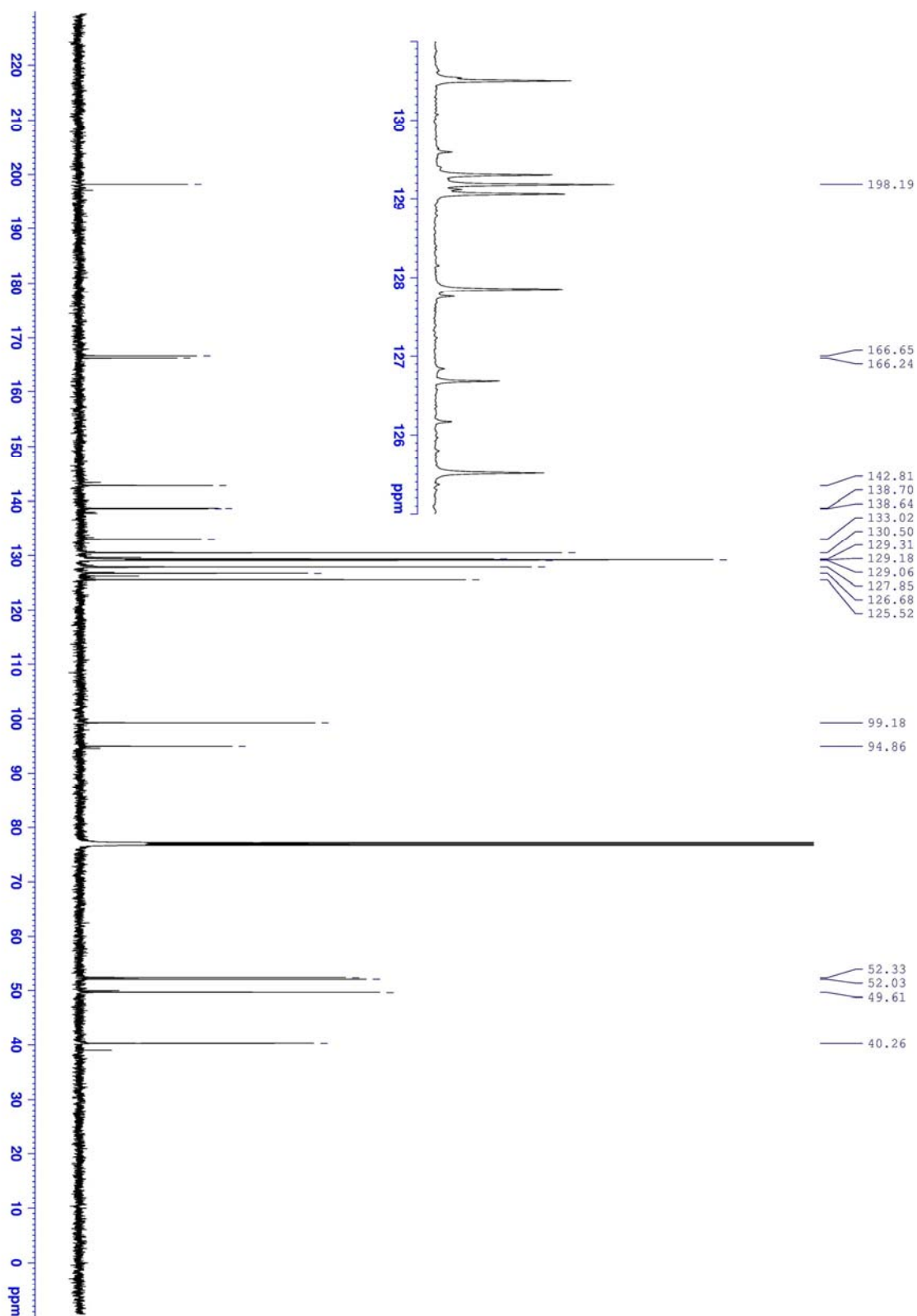
Table of Contents:

NMR Spectral Data of hemiacetal 7	2
NMR Spectral Data of benzil 8	8
NMR Spectral Data of benzoin 9	10

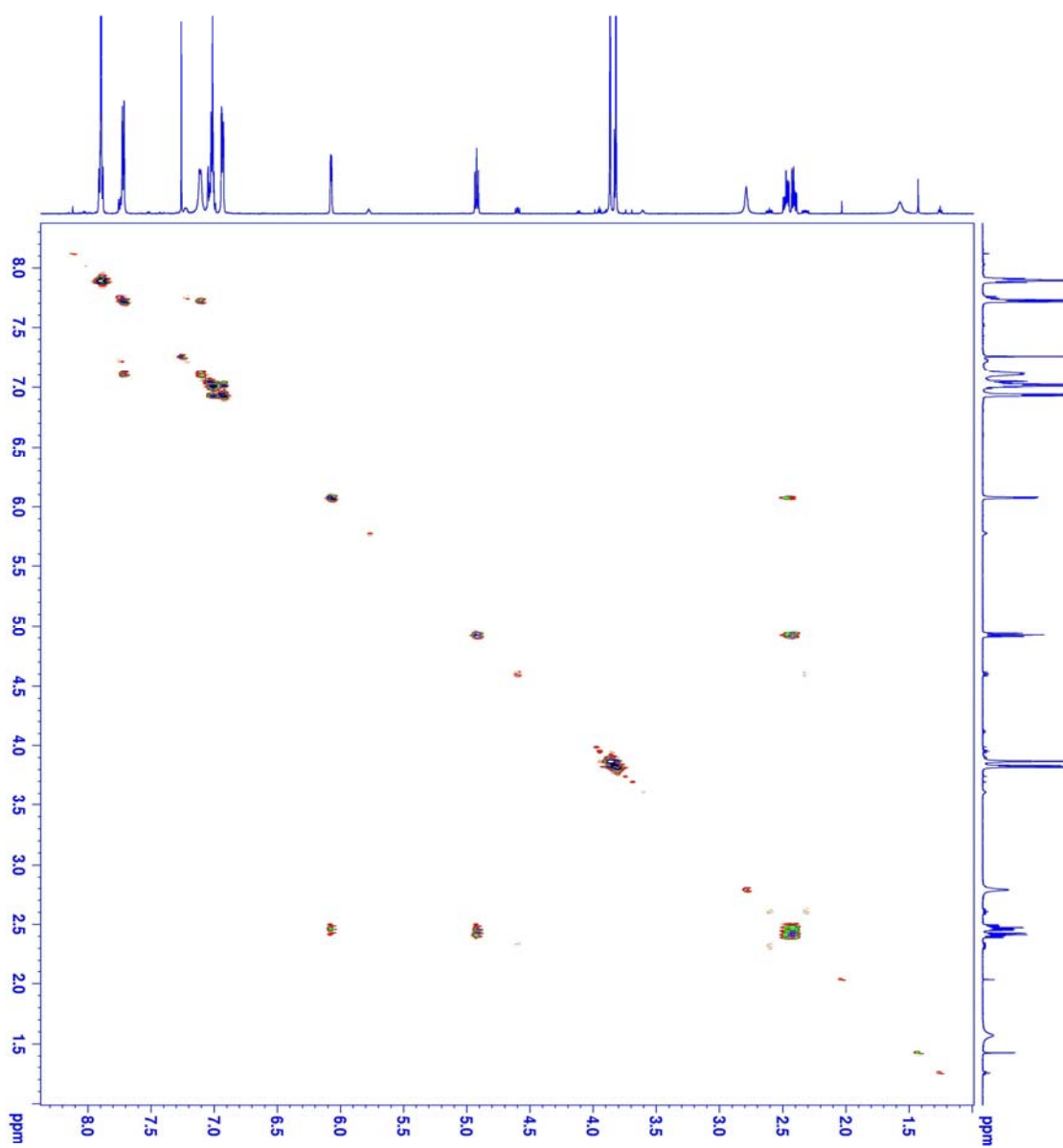
^1H NMR (600 MHz, CDCl_3) of hemiacetal **7**



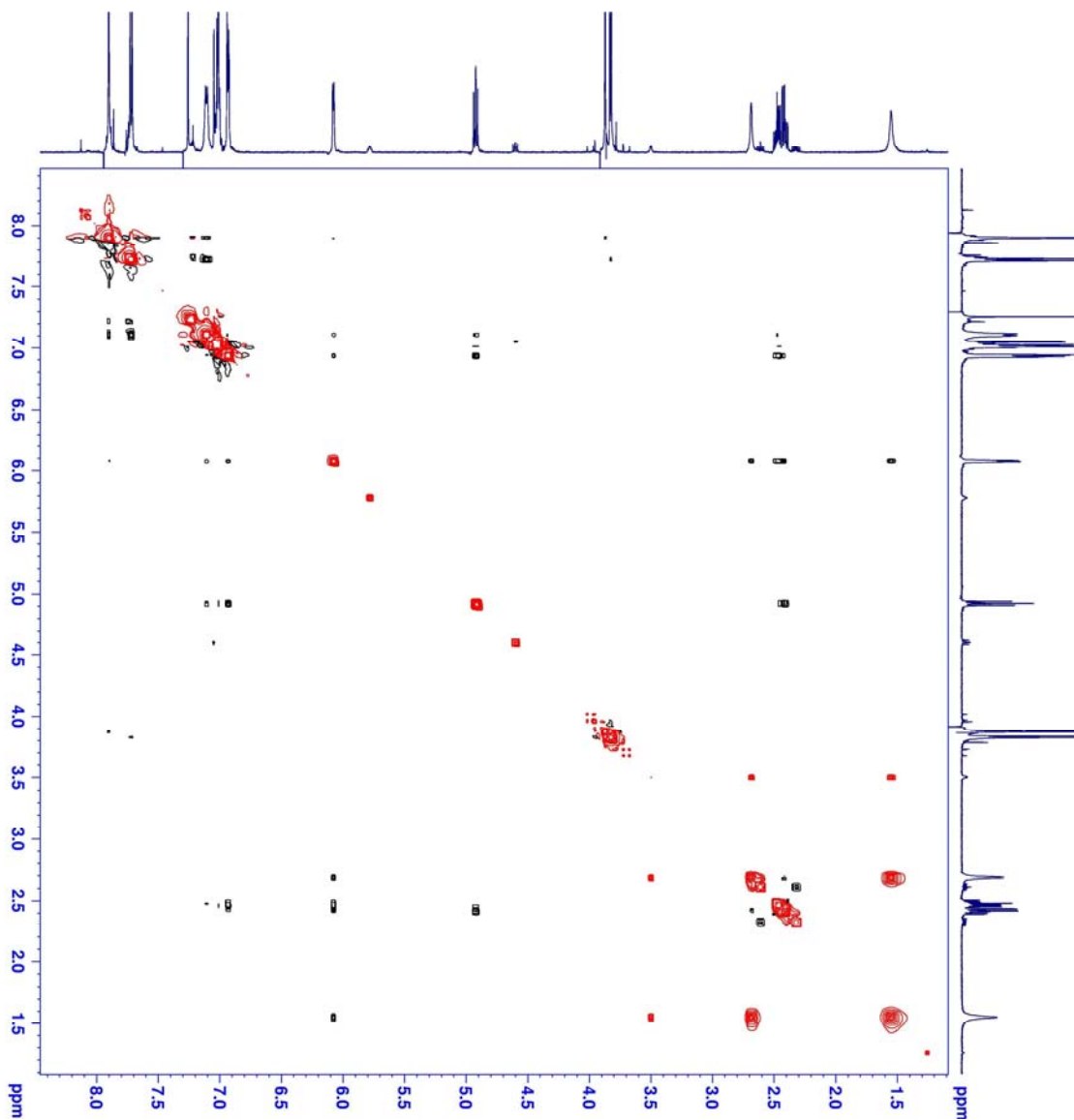
^{13}C NMR (150 MHz, CDCl_3) of hemiacetal **7**



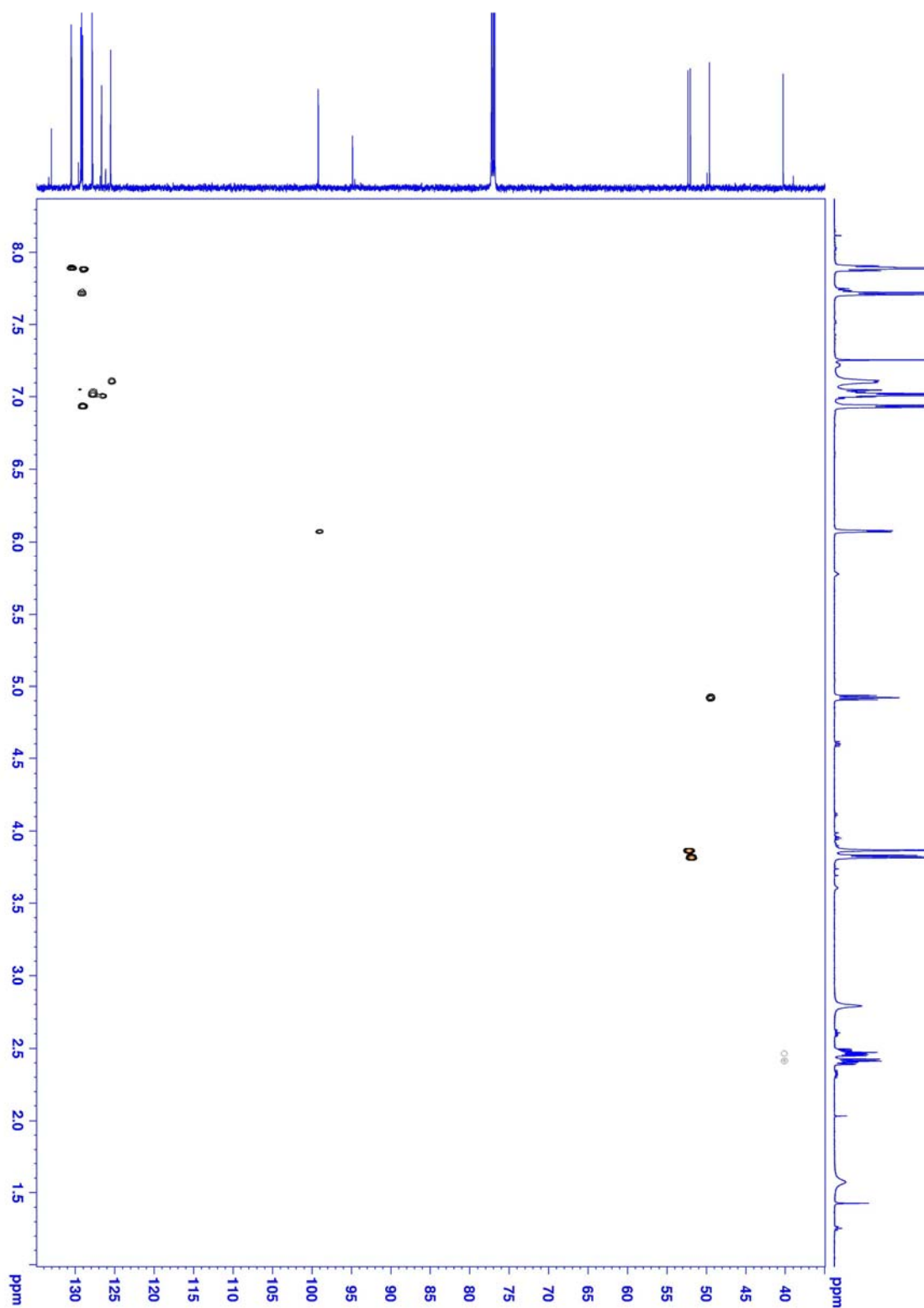
COSY (600 MHz, CDCl₃) of hemiacetal **7**



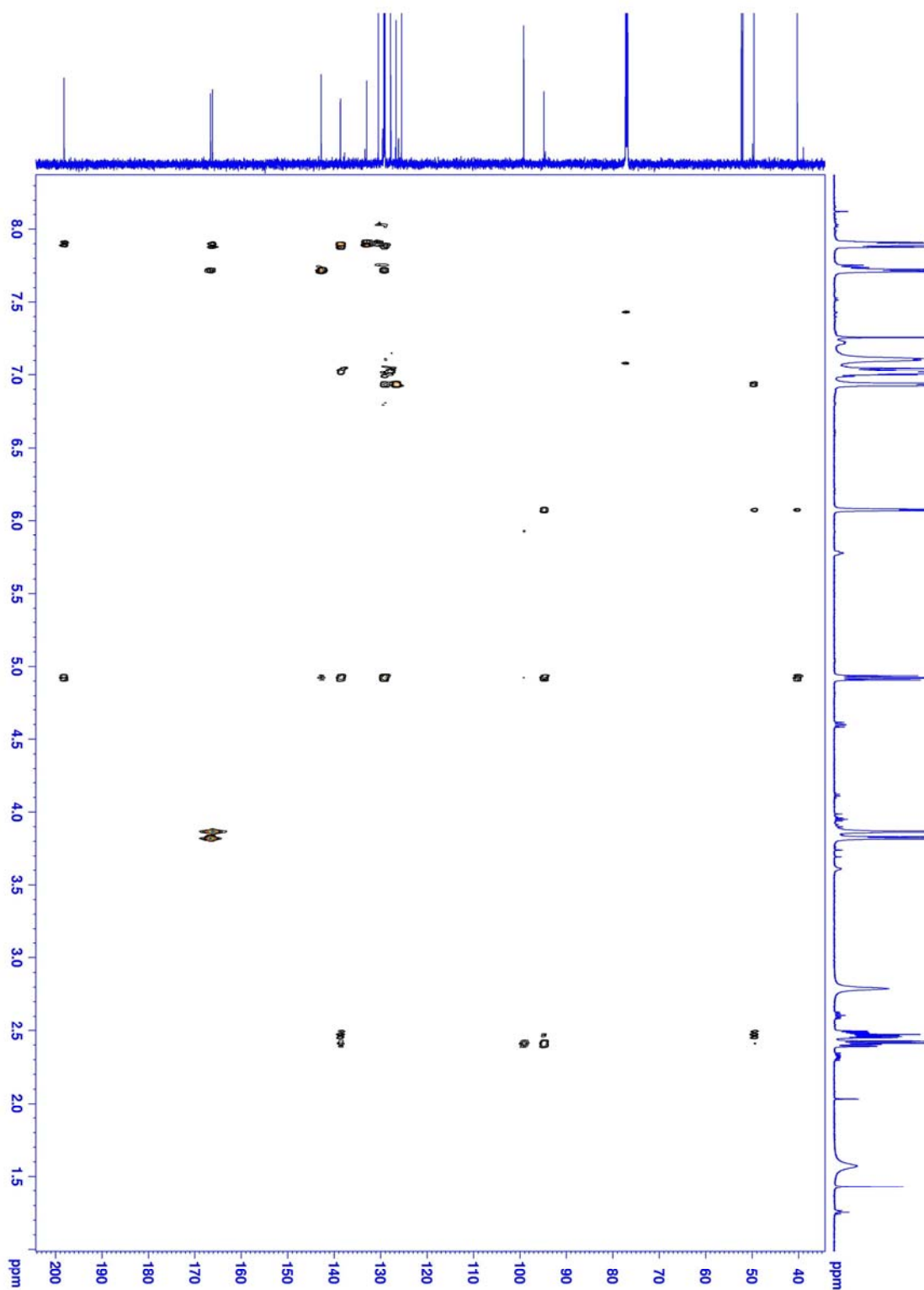
NOESY (500 MHz, CDCl₃) of hemiacetal **7**



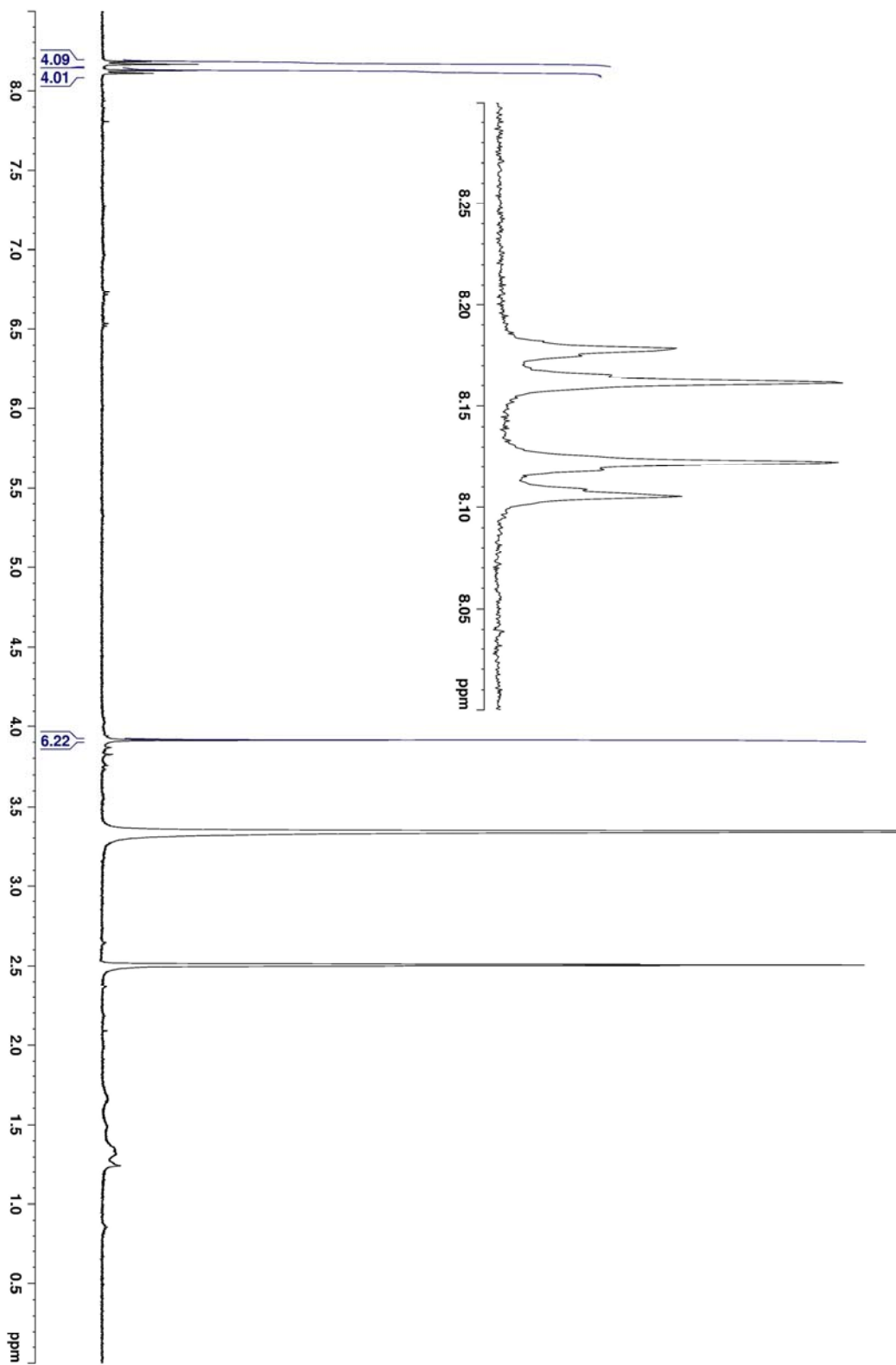
HSQC (600/150 MHz, CDCl₃) of hemiacetal **7**



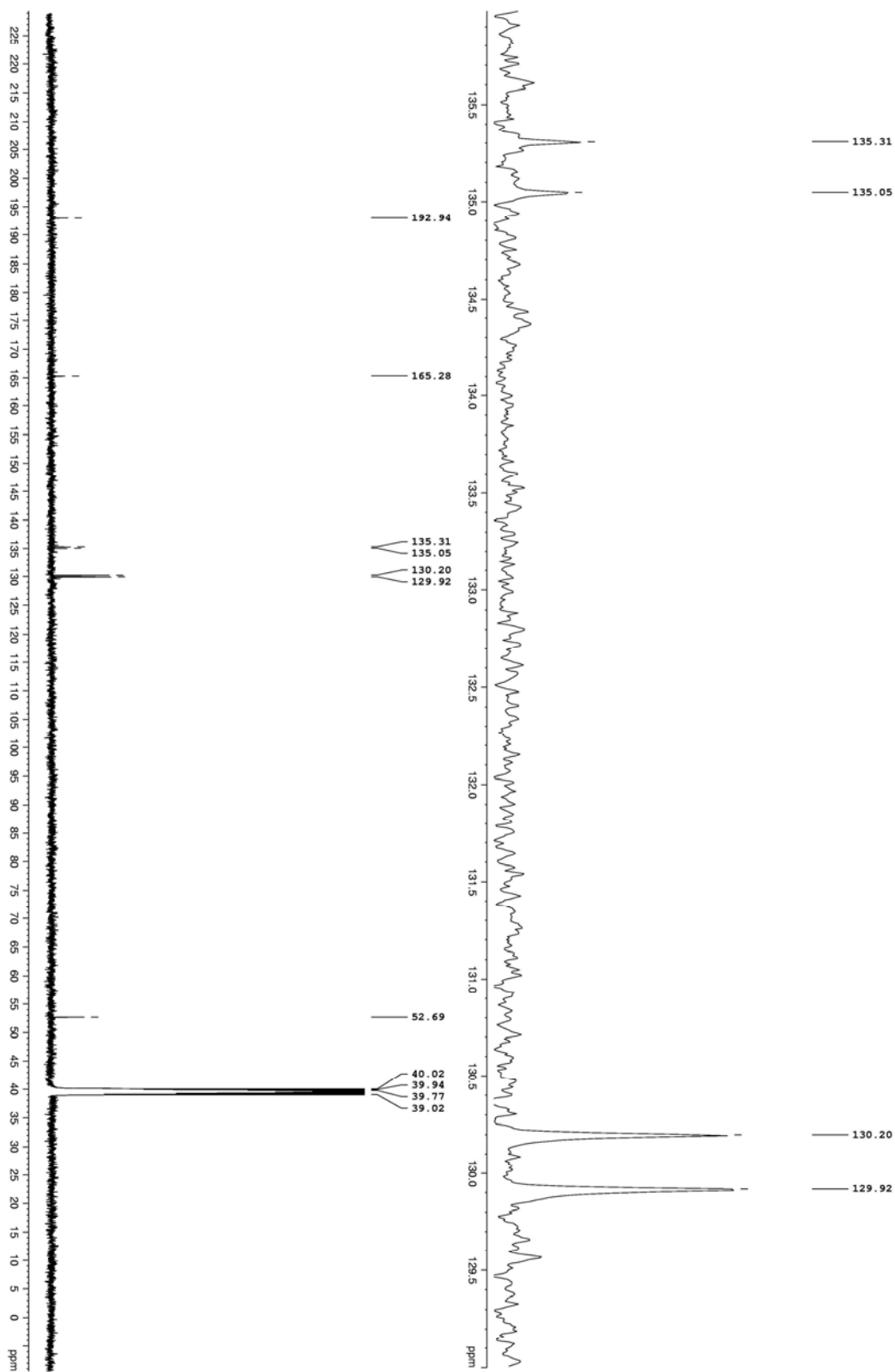
HMBC (600/150 MHz, CDCl₃) of hemiacetal **7**



^1H NMR (500 MHz, $\text{d}_6\text{-DMSO}$) of benzil **8**



^{13}C NMR (125 MHz, $\text{d}_6\text{-DMSO}$) of benzil **8**



^1H NMR (300 MHz, d_6 -DMSO) of benzoin **9**

