Supporting Information File 2

for

Stereocontrolled synthesis of 5-azaspiro[2.3]hexane derivatives as conformationally "frozen" analogues of L-glutamic acid

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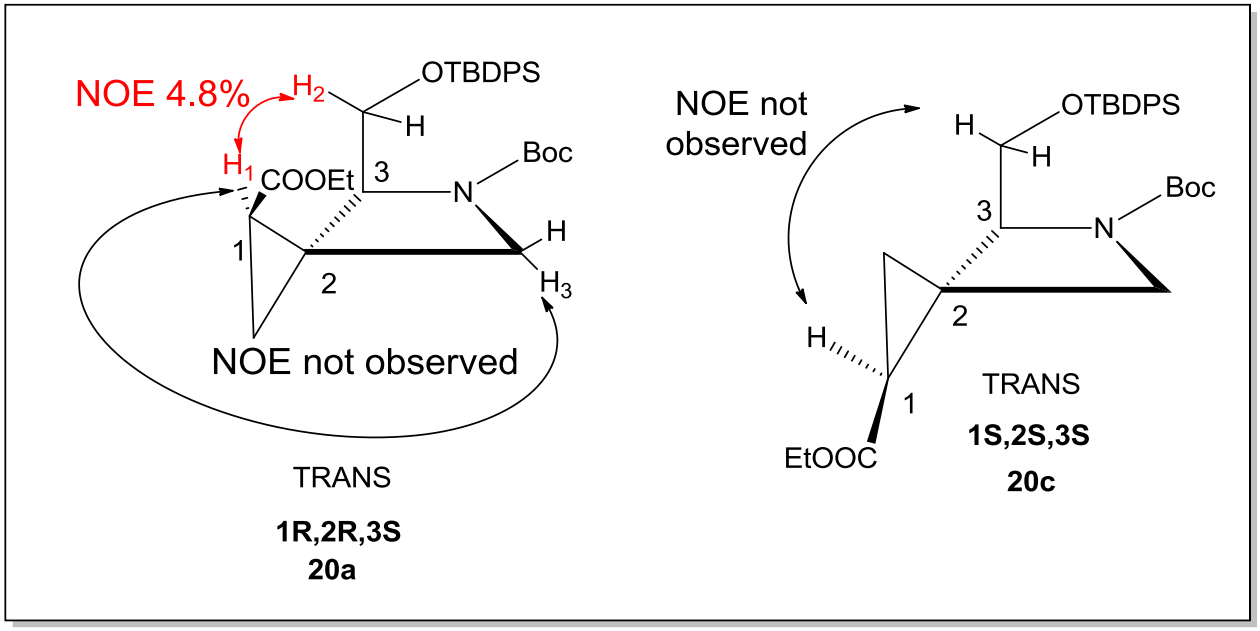
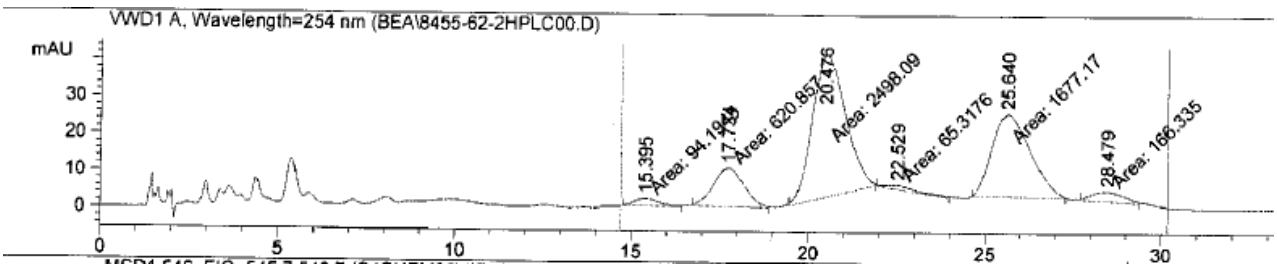
NOE studies on compounds 20a and 20c

When H1 proton of the diastereoisomer obtained in 49% yield (major diasteroisomer) was irradiated, 4.8% NOE effect was observed on H2 proton (see figure below). This is possible only for the trans isomer **20a** and cis diasteroisomer **20b**, while in the other 2 diastereoisomers **20c** and **20d** this protons are too far away to afford a NOE effect. Since this reaction proceeded with trans diastereoselectivity, the major product was identified as **20a**. This was confirmed also through irradiation of the proton H3: in this case, no NOE effect was observed both at the H2 and H3 protons, while in the case of the **20b**, it should be observed. Accordingly, when NOE experiments were performed on the second most abundant diasteroisomer obtained in 32% yield, no NOE effect was observed. Therefore, this compound was identified as the *trans*-cyclopropane derivative **20c**.



HPLC analysis on compound 20



Determined by analytical HPLC–MS using an (*S*,*S*)-Whelk-O1 column (methanol/water 85:15, flow rate: 1.0 mL/min, UV-254 nm).