

**Supplementary Online Information**

**Interspecific Cross-Attraction between the South American Cerambycid Beetles  
*Cotyctytus curvatus* and *Megacyllene acuta* is Averted by Minor Pheromone  
Components**

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## List of Supplementary Figures

- Fig. S1** Sexual dimorphism in cuticular pores on the prothorax, presumed to be associated with pheromone glands, in adult males (a) and females (b) of *Cotylytus curvatus*. Close-up of the median portion of the tergum of (a') male and (b') female. The arrow indicates one of the male-specific pores that are absent in females. Photographs of the pronota of pinned conspecific adults of both sexes were taken with a Leica Digital DFC450 camera on a Leica MDG41 stereomicroscope (Leica Microsystems, Heerbrugg, Switzerland). Close-up images were taken at  $\sim 140 \times$  magnification.
- Fig. S2** Sexual dimorphism in cuticular pores on the prothorax, presumed to be associated with pheromone glands, in adult males (a) of *Megacyllene acuta* that are absent in females (b). Close-up of the anterior portion of the tergum of a male (a'; arrow indicating one pore) and a female (b'). Methods and materials as in Fig. S1.
- Fig. S3** Sexual dimorphism in pore indentations on the prothorax of (a) a male and (b) a female of *Megacyllene falsa*. Close-up of the posterior corner of the tergum of (a') a male and (b') a female. The arrow indicates one of the male-specific pores that are absent in females. Methods and materials as in Fig. S1.
- Fig. S4** EI mass spectrum of 2-methylbutanol.
- Fig. S5** EI mass spectrum of 3-hydroxyhexan-2-one.
- Fig. S6** EI mass spectrum of (2*R*\*,3*R*\*)-2,3-hexanediol.
- Fig. S7** EI mass spectrum of (2*R*\*,3*S*\*)-2,3-hexanediol
- Fig. S8** Gas chromatograms run on a Cyclodex B chiral stationary phase column of: A) racemic 3-hydroxyhexan-2-one; B) racemic 3-hydroxyhexan-2-one spiked with (*R*)-3-hydroxyhexan-2-one; C) An extract of volatiles from male *Cotylytus curvatus* spiked with racemic 3-hydroxyhexan-2-one. Analysis conditions: Cyclodex B column (30 m  $\times$  0.25 mm i.d., 0.25  $\mu$  film thickness), injector temp 150  $^{\circ}$ C, split injections at 25 psi head-pressure, temperature program 50  $^{\circ}$ C/1 min, 3  $^{\circ}$ C/min to 220  $^{\circ}$ C, hold 20 min.
- Fig. S9** Gas chromatograms run on a Cyclodex B chiral stationary phase column of: A) An extract of volatiles from male *Megacyllene acuta* spiked with (*S*)-2-methylbutanol ); B) An extract of volatiles from male *M. acuta* spiked with (*R*)-2-methylbutanol. Analysis conditions as in Fig. S8.
- Fig S10** Gas chromatograms run on a Cyclodex B chiral stationary phase column of: A) a racemic 3-hydroxyhexan-2-one standard; B) racemic 3-hydroxyhexan-2-one spiked with (*R*)-3-

hydroxyhexan-2-one; C) An extract of volatiles from male *Megacyllene acuta* spiked with racemic 3-hydroxyhexan-2-one. Analysis conditions as in Fig. S8.

**Fig. S11** Gas chromatograms run on a Cyclodex B chiral stationary phase column of: A) a synthetic mixture of all four 2,3-hexanediol stereoisomers; B) An extract of volatiles from male *Megacyllene acuta* spiked with the mixture of all four stereoisomers of 2,3-hexanediol. Analysis conditions as in Fig. S8.

Fig. S1

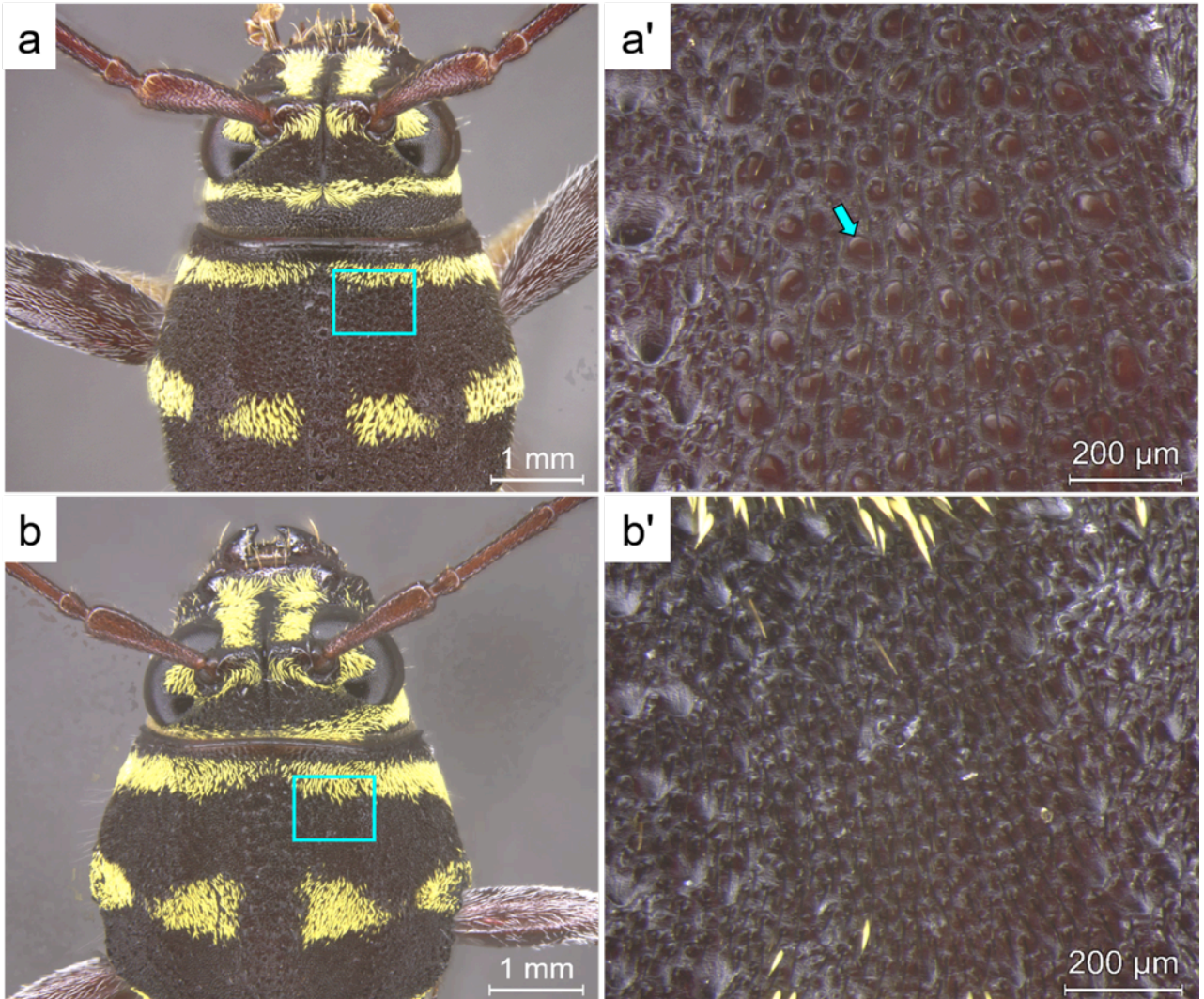




Fig. S2

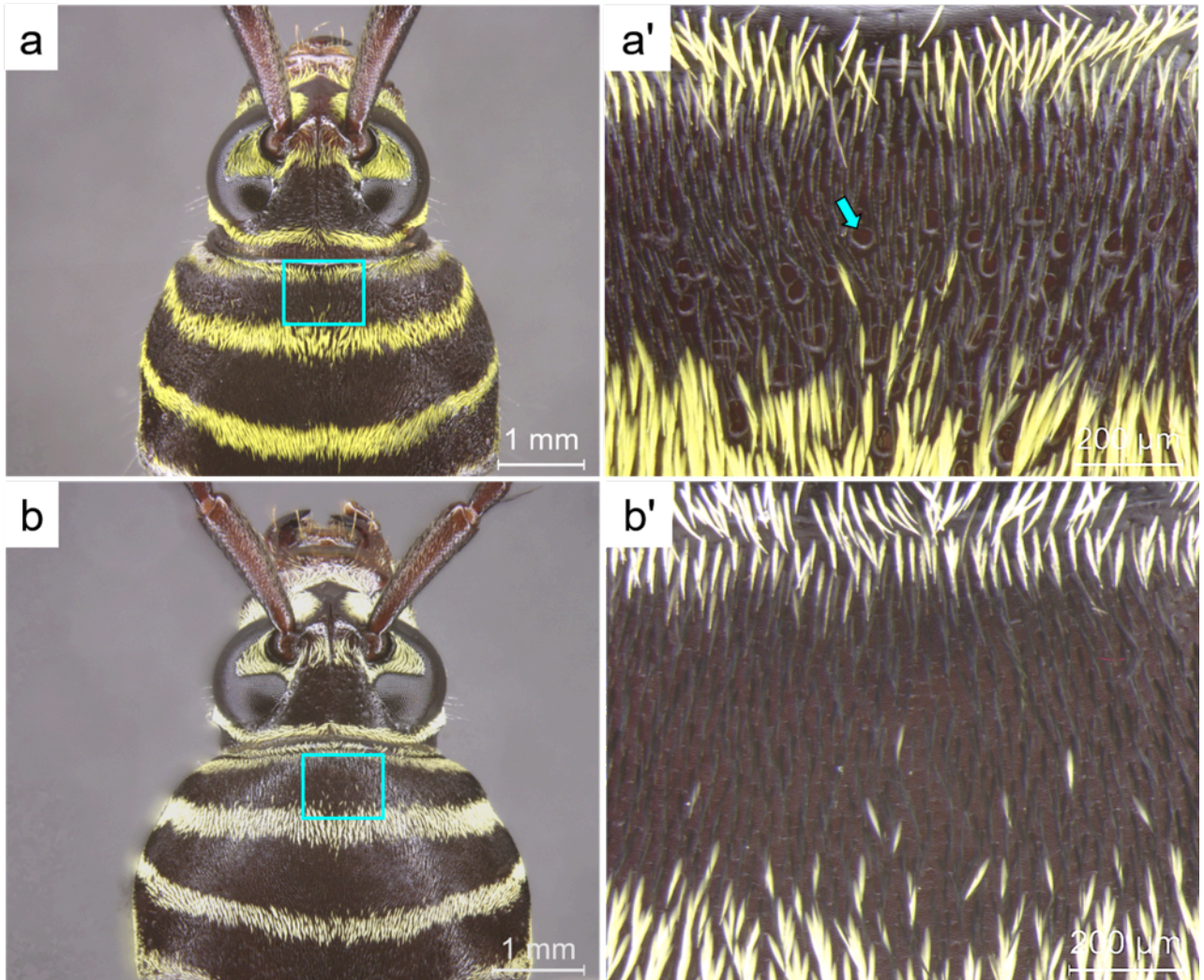




Fig. S3

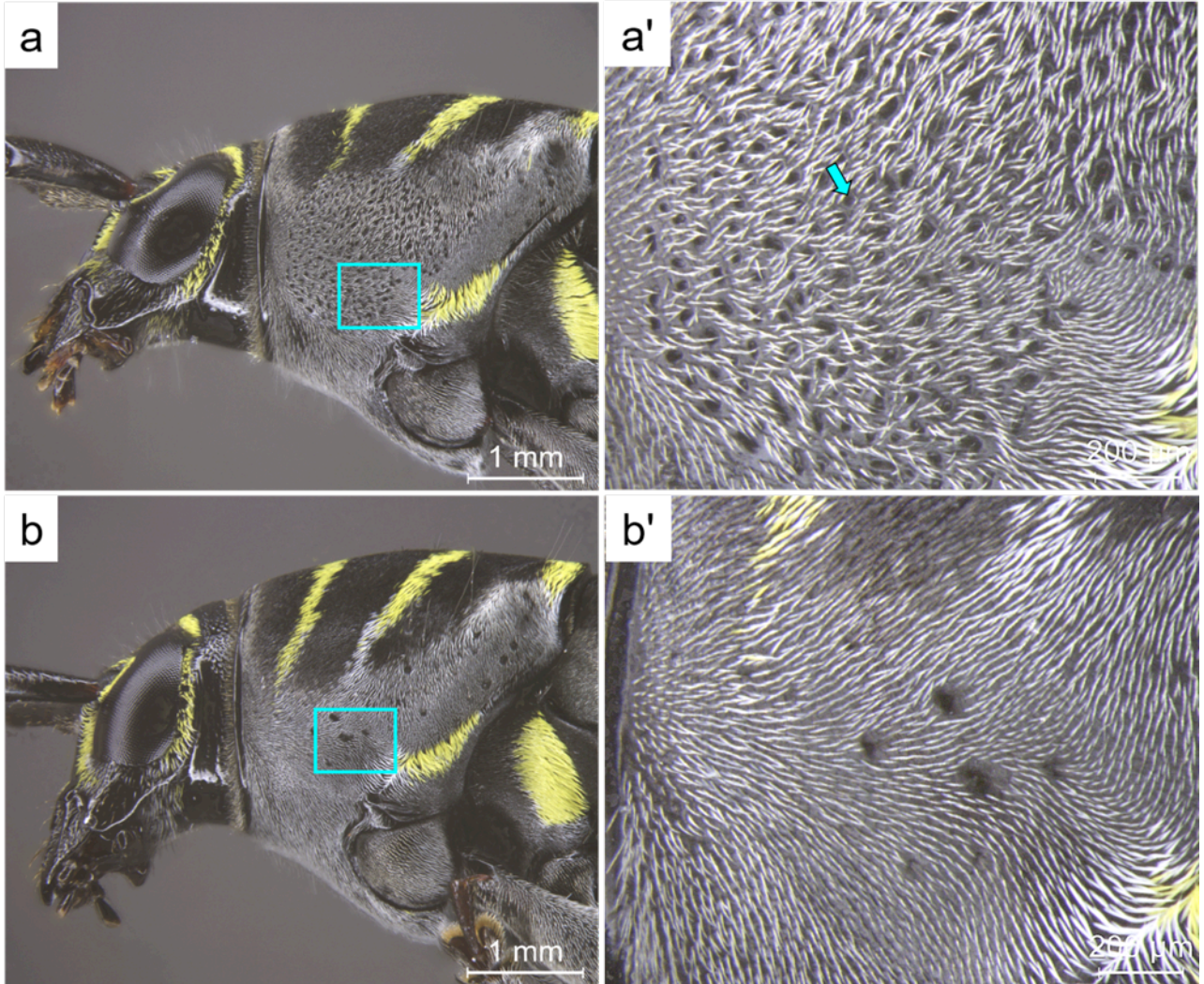


Fig. S4

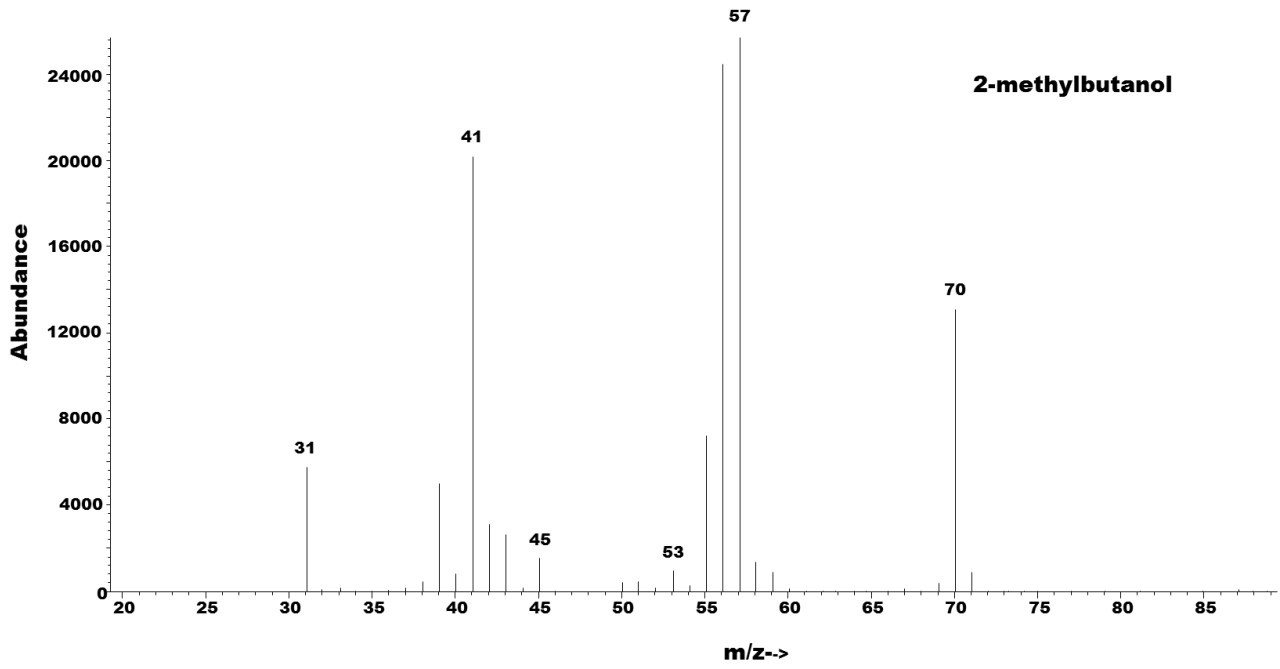


Fig. S5

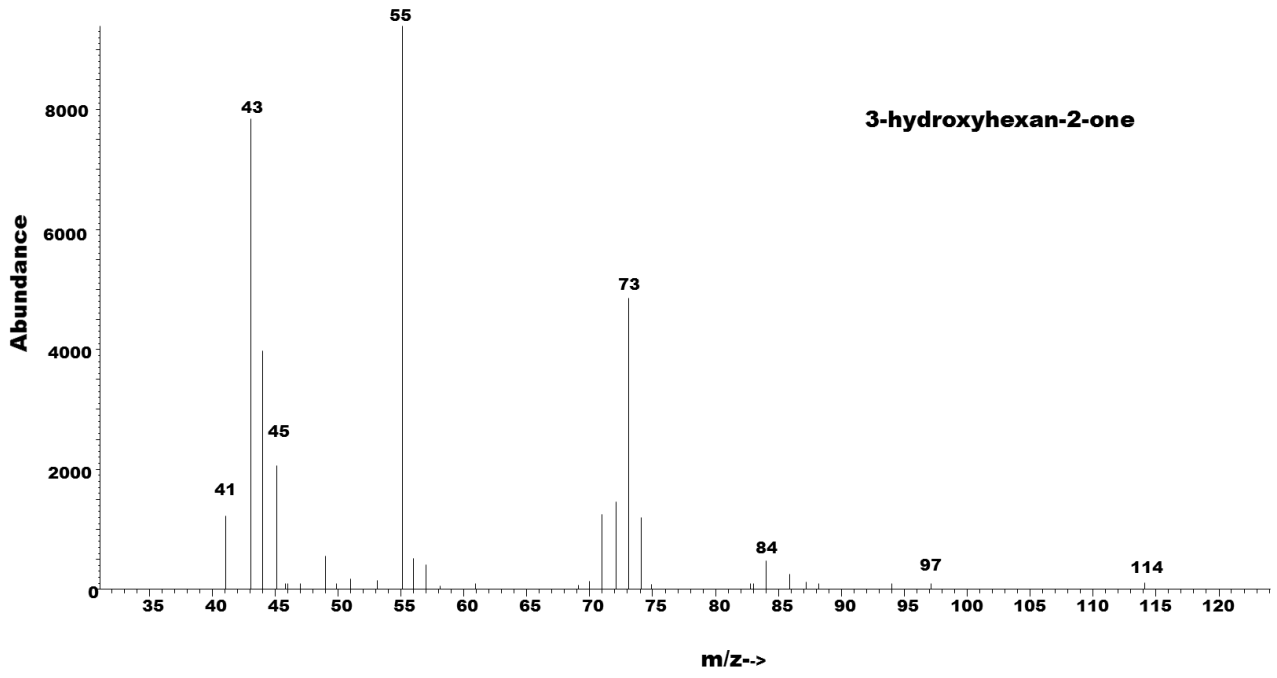




Fig. S6

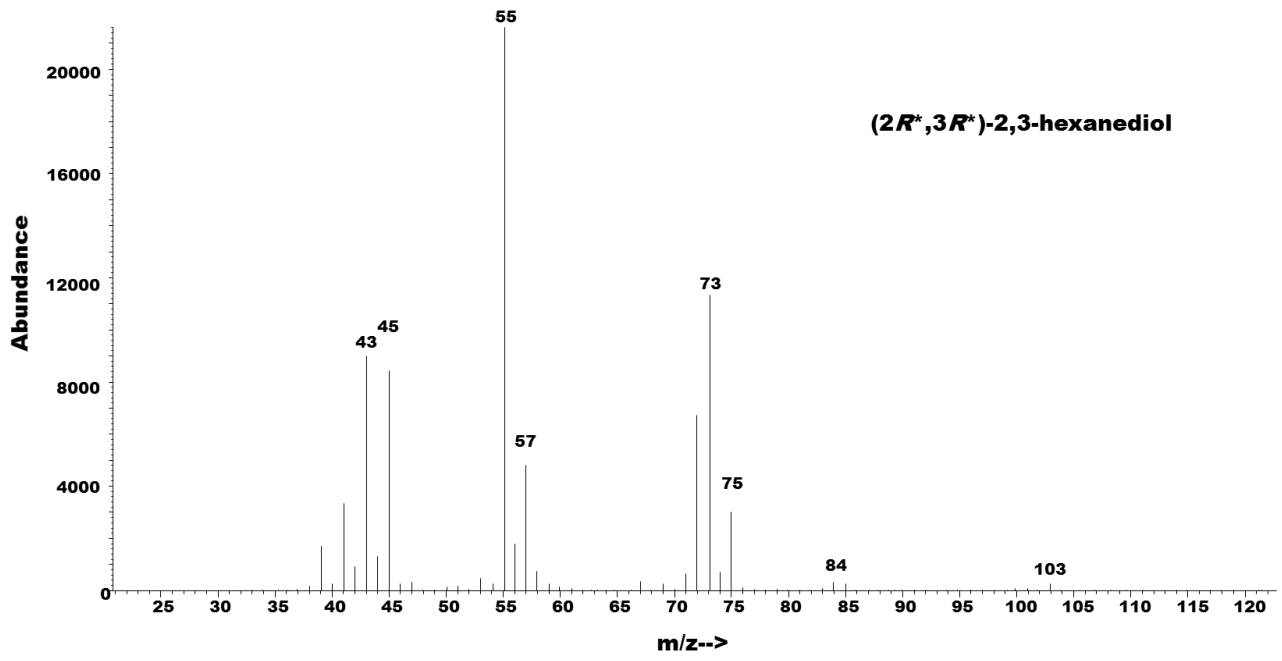


Fig. S7

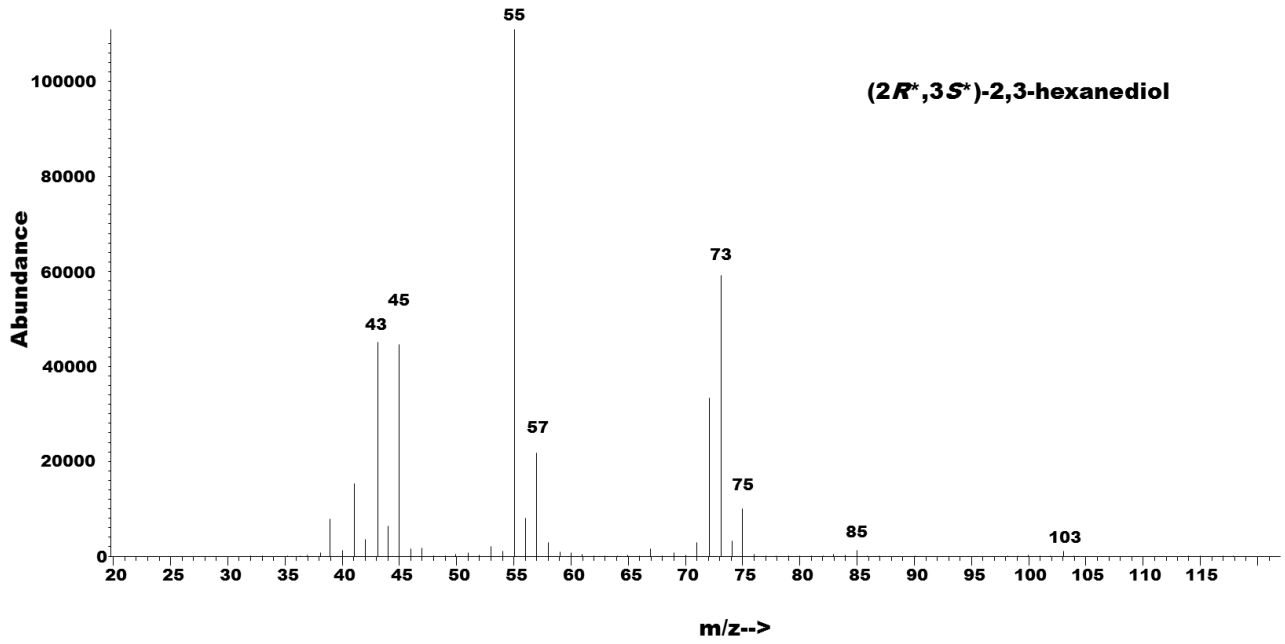


Fig. S8

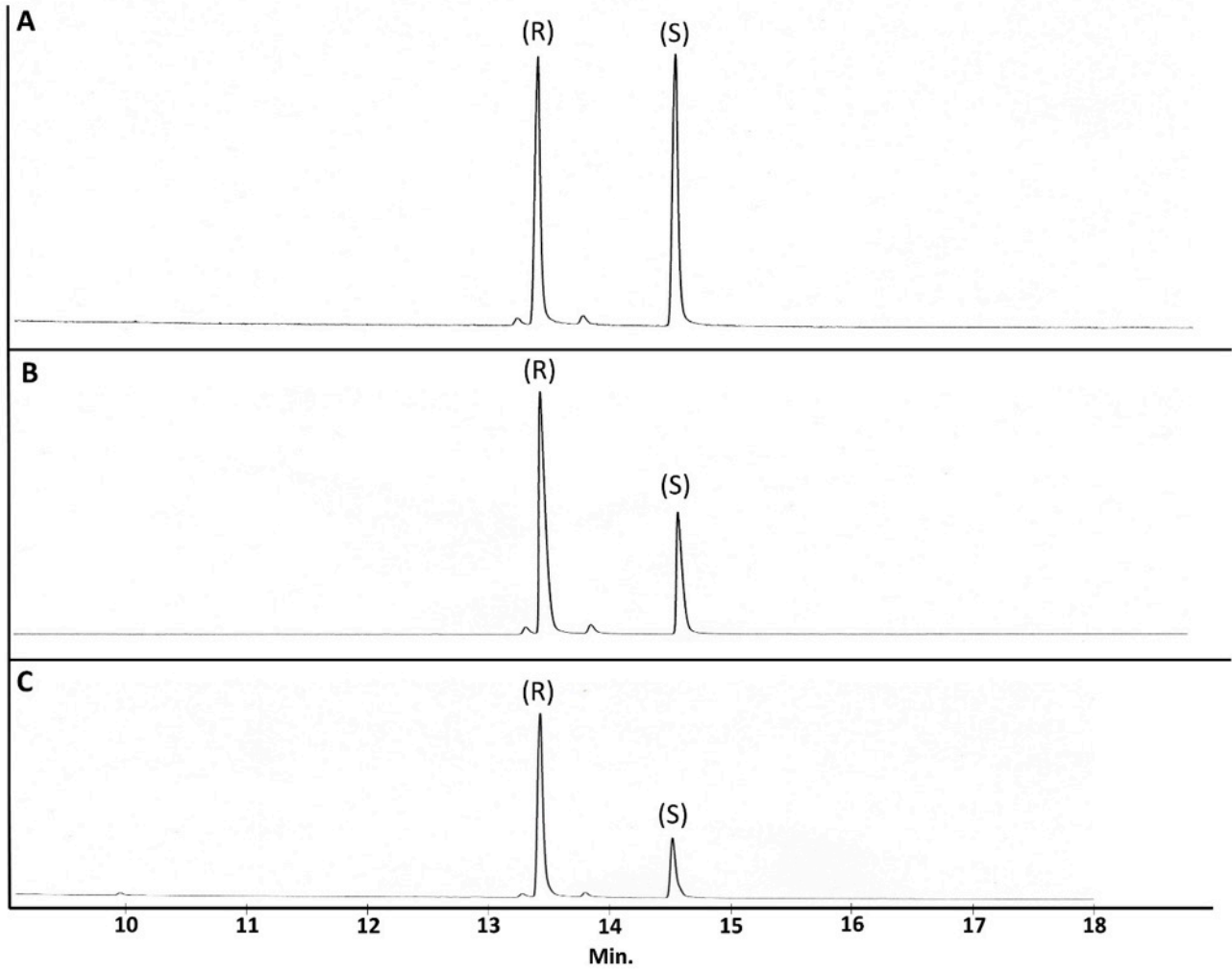


Fig. S9

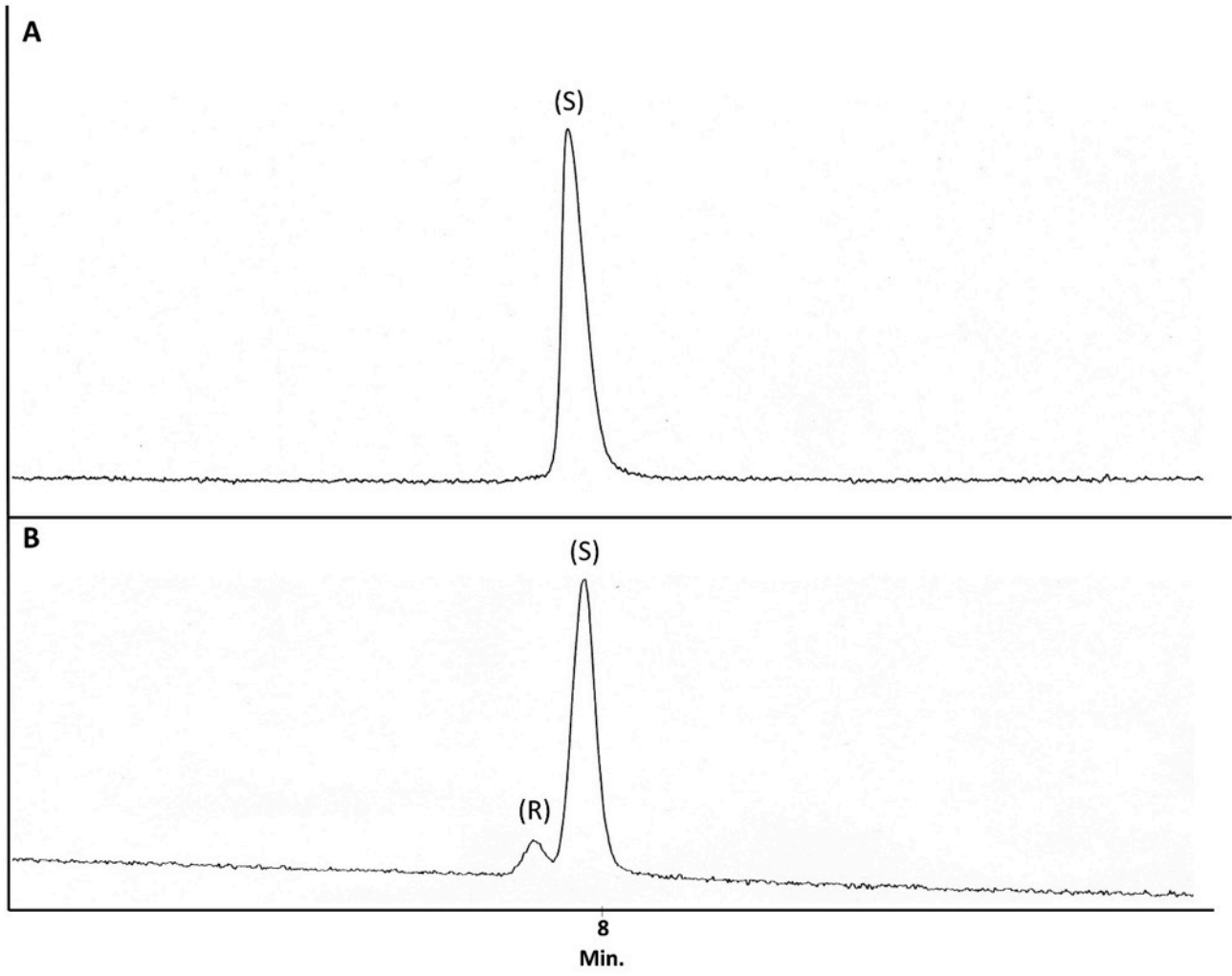




Fig. S10

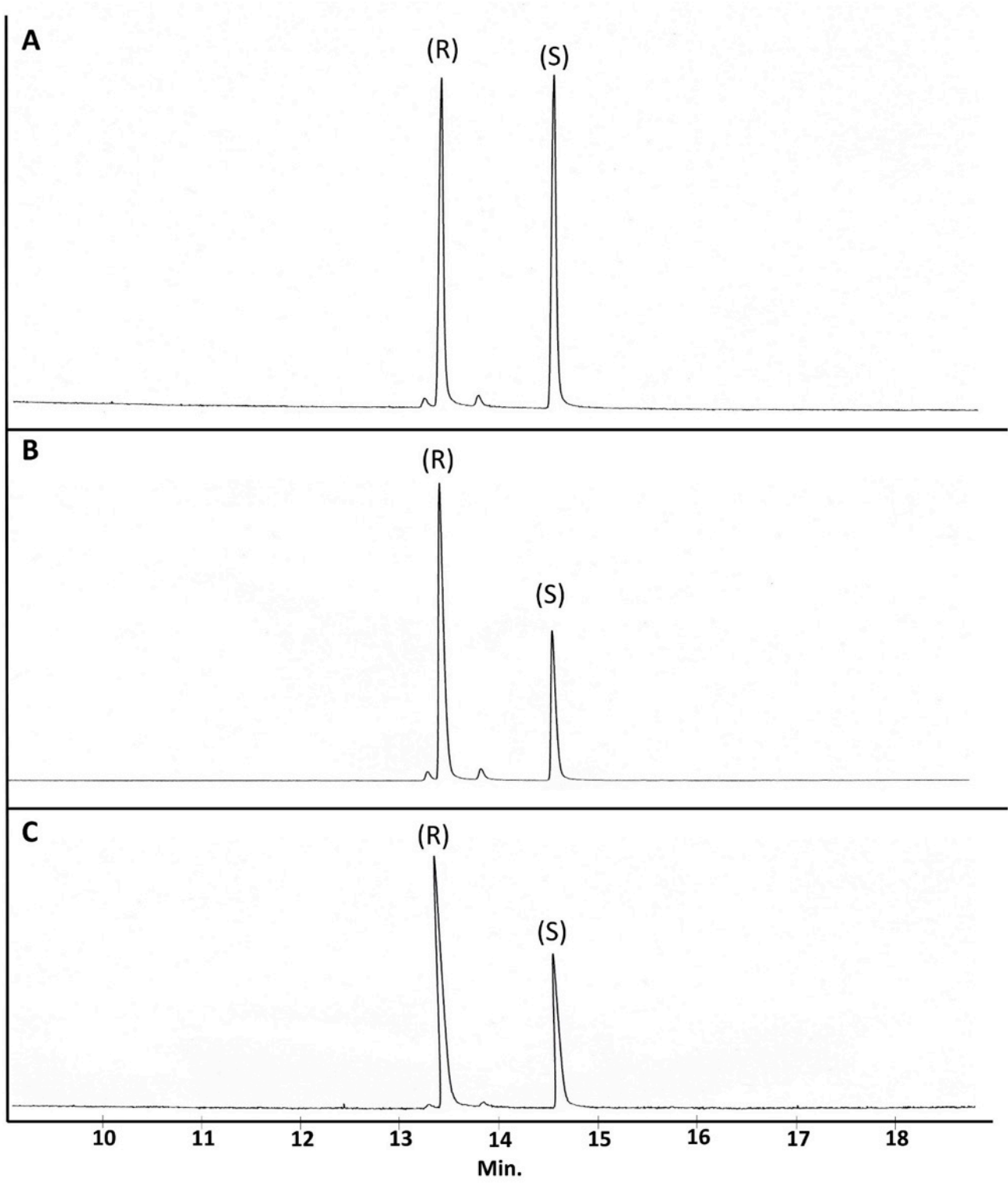


Fig. S11

