

Supplementary Material for PCCP

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Supporting information of:

**“Molecular Recognition in Gas Phase: Benzocaine-Phenol as a Model of The Anesthetic-Receptor Interaction”;**

By

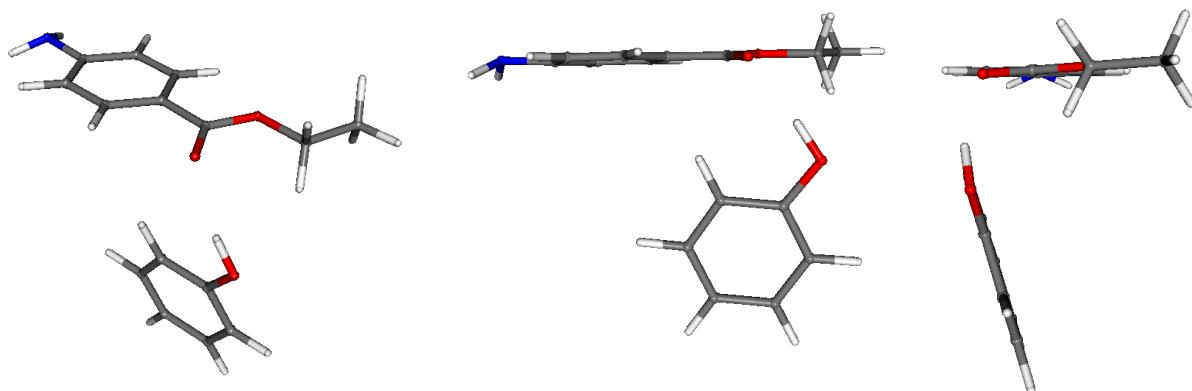
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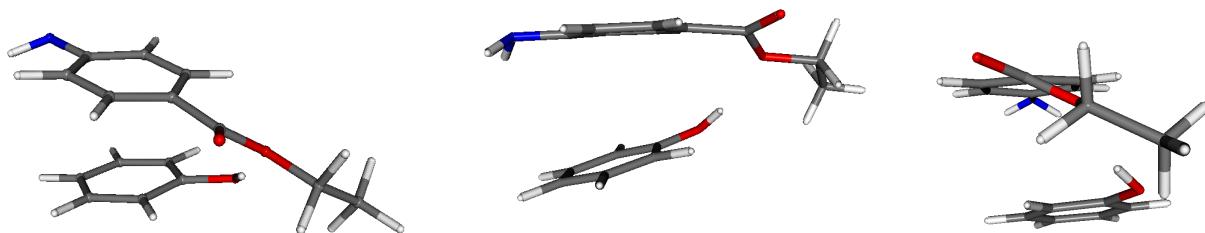
<sup>2</sup>*Departamento de Química Física y Química Inorgánica; Facultad de Ciencias, Universidad de Valladolid, E-47005 Valladolid, Spain,*

**Supporting Figure S1.** Benzocaine-phenol structures calculated at MP2/6-31g(d) level.

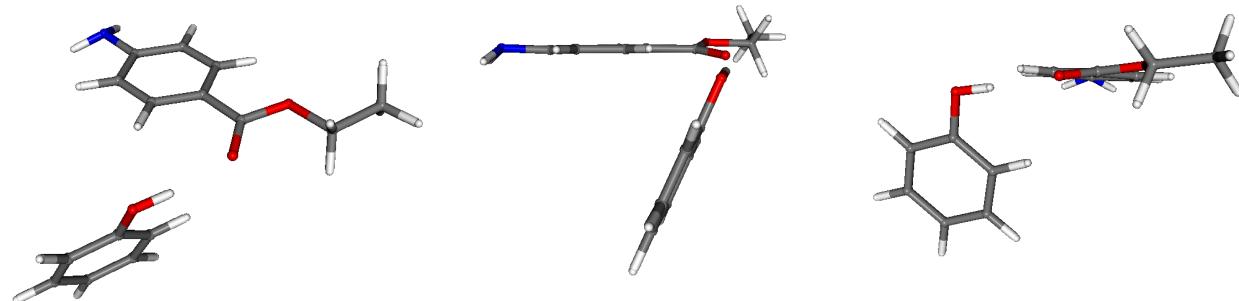
*t*-BzPhOH 1



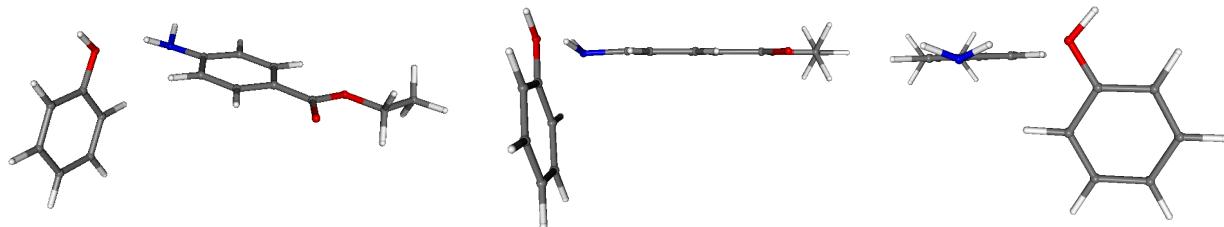
*t*-BzPhOH 2



*t*-BzPhOH 3

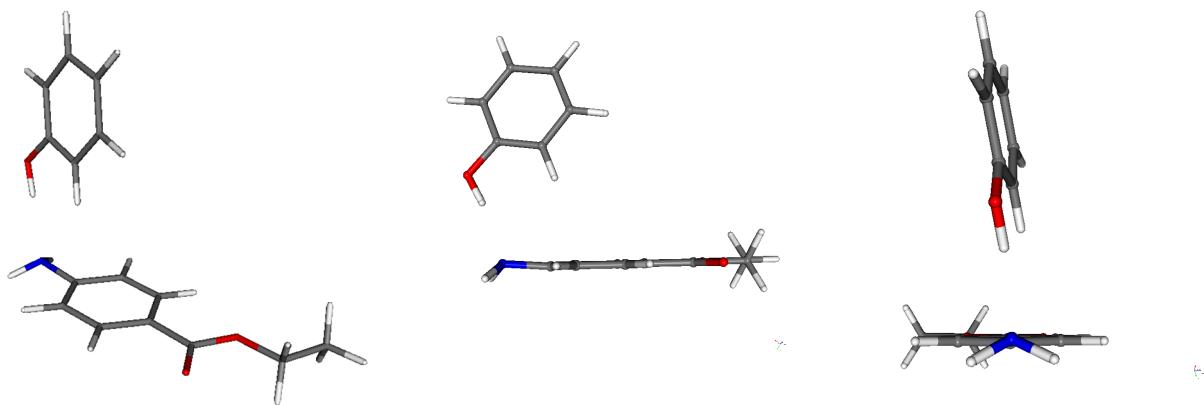


*t*-BzPhOH 4

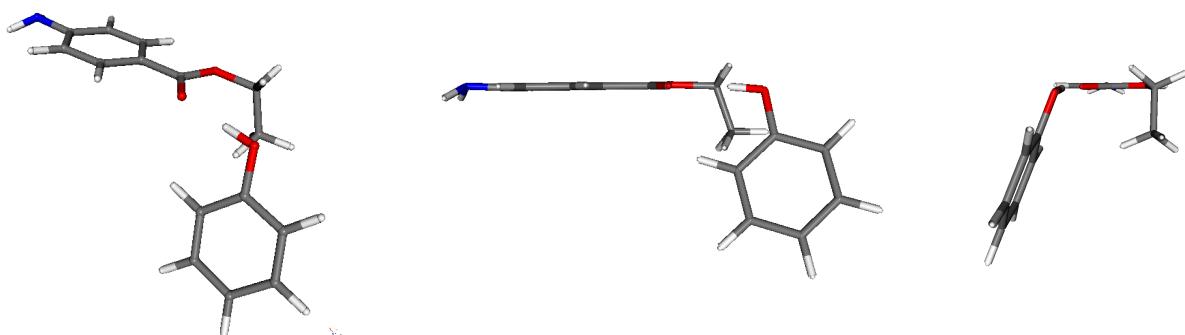


**Supporting Figure 1 (cont.)**

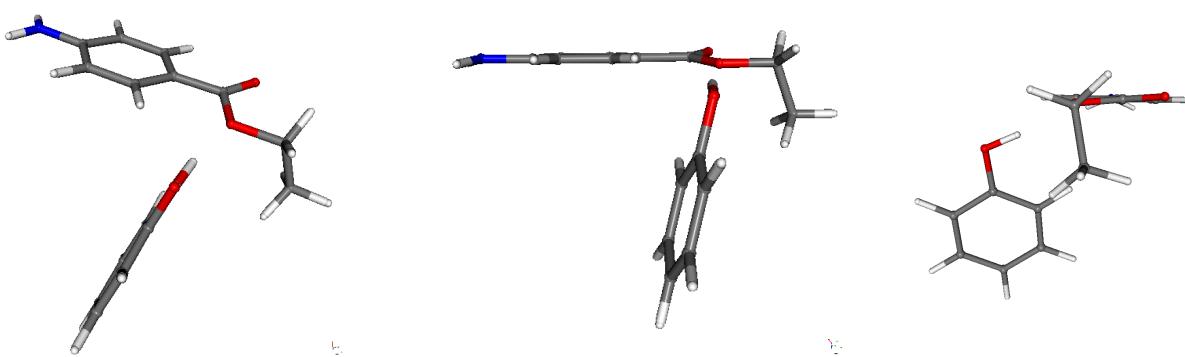
*t*-BzPhOH 5



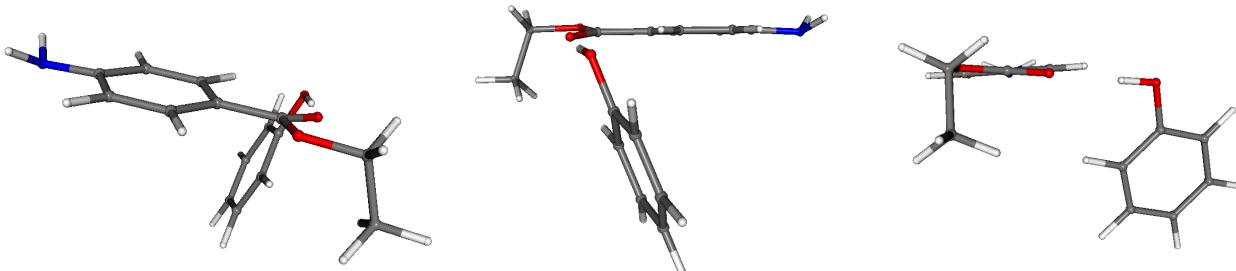
*g*-BzPhOH SS1



*g*-BzPhOH SS2

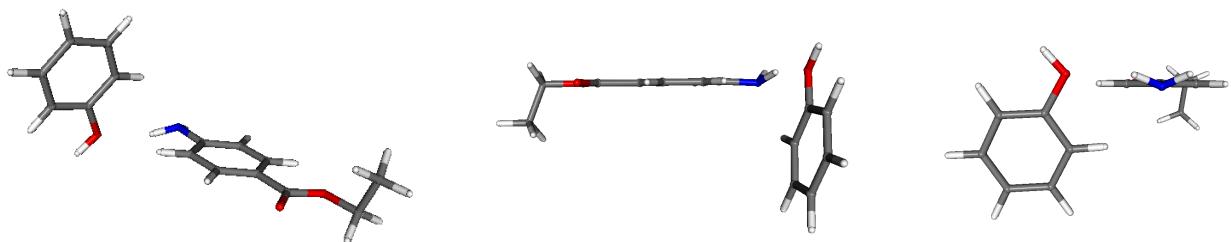


*g*-BzPhOH SS3

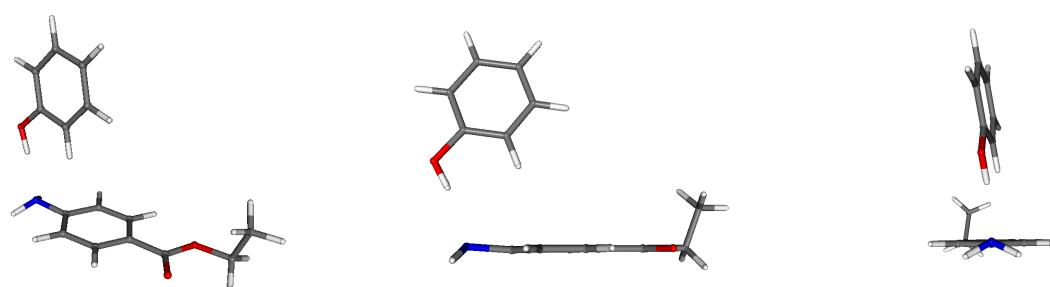


**Supporting Figure 1 (cont.)**

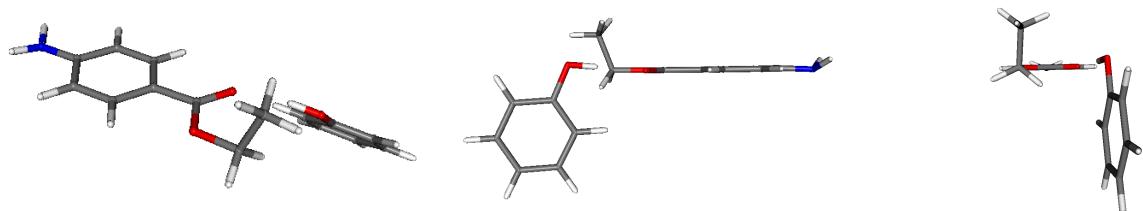
g-BzPhOH SS4



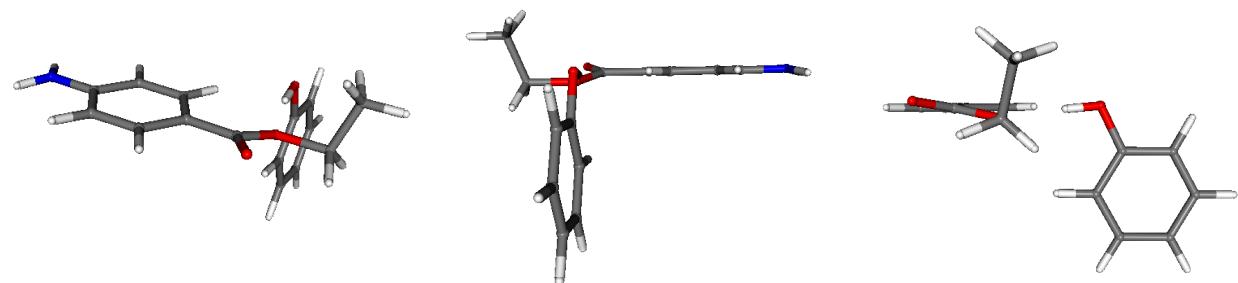
g-BzPhOH SS5



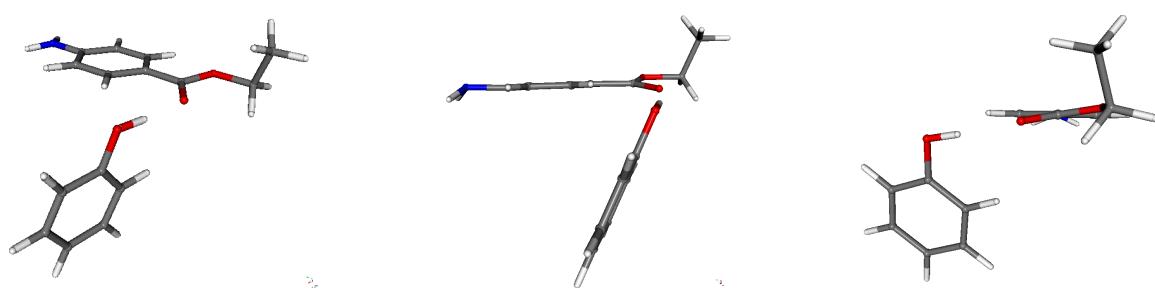
g-BzPhOH OS1



g-BzPhOH OS2

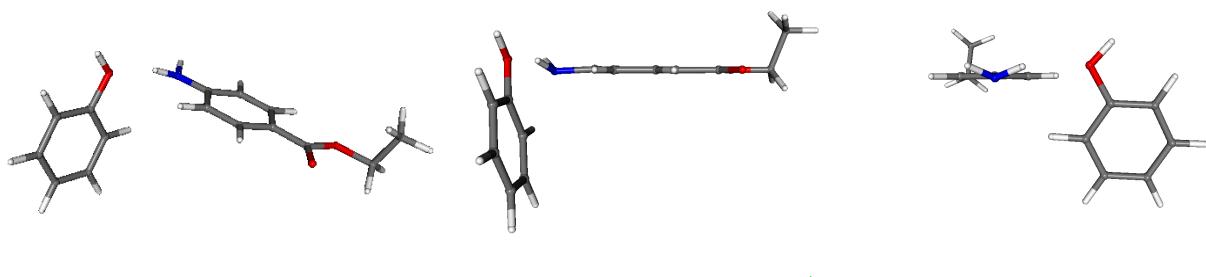


g-BzPhOH OS3

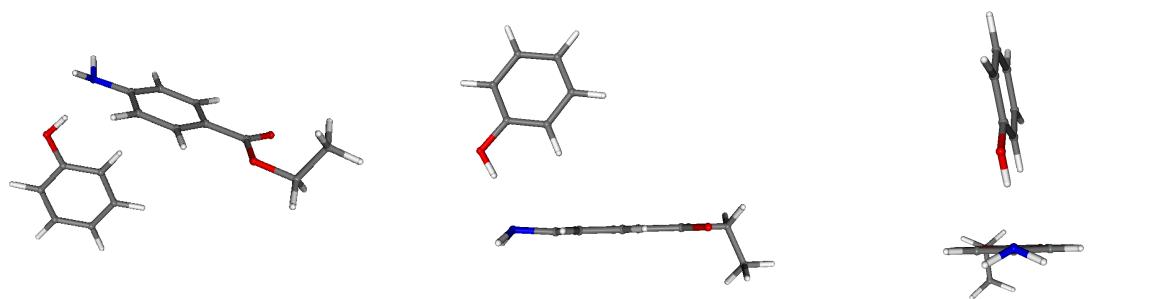


**Supporting Figure 1 (cont.)**

g-BzPhOH OS4



g-BzPhOH OS5



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**Supporting Fig. S2.** Bz ionization thresholds obtained using 1+1' REMPI and Bz-PhOH ionization and fragmentation threshold obtained by scanning the ionization laser in a 2-color REMPI experiment, setting the pump laser on the origin band at  $34129\text{ cm}^{-1}$  and integrating either the  $[\text{Bz-PhOH}]^+$  (ionization) or the  $\text{Bz}^+$  mass channel (fragmentation, red trace).

