

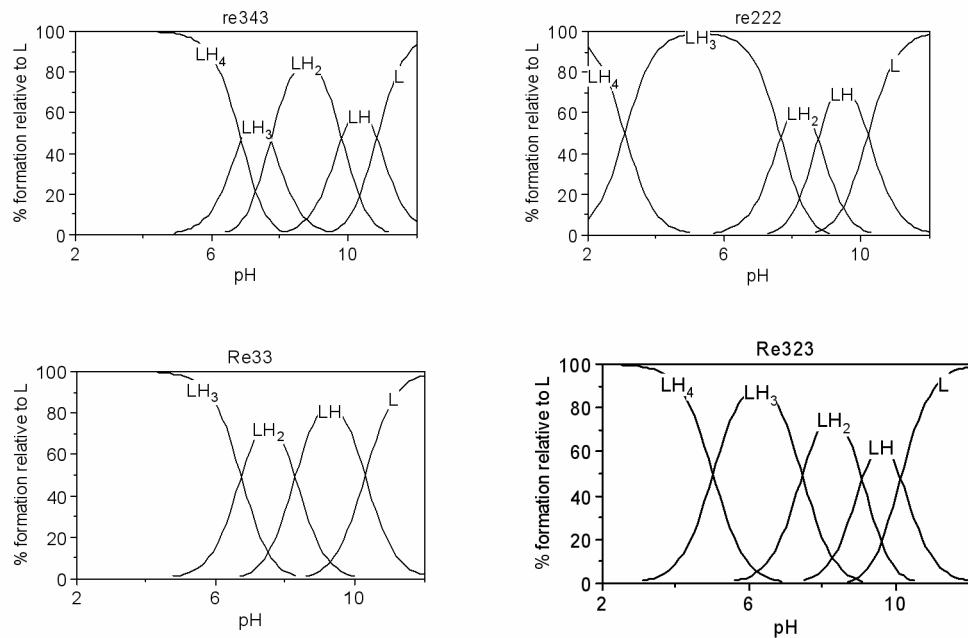
## Oxaaza Cyclophanes in the Recognition of Nucleotides. The Role of oxygen and electron-rich Aromatic Rings

M. I. Burguete,<sup>a</sup> E. García-España,<sup>b</sup> L. López,<sup>a</sup> S.V. Luis,<sup>a</sup> J. Miravet<sup>a</sup> and D. Sroczynski <sup>a</sup>

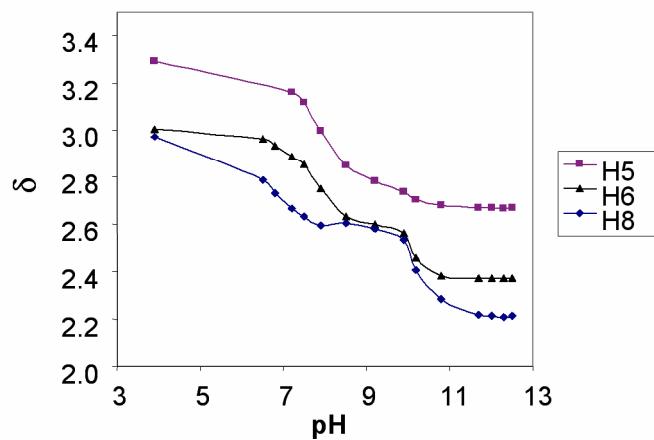
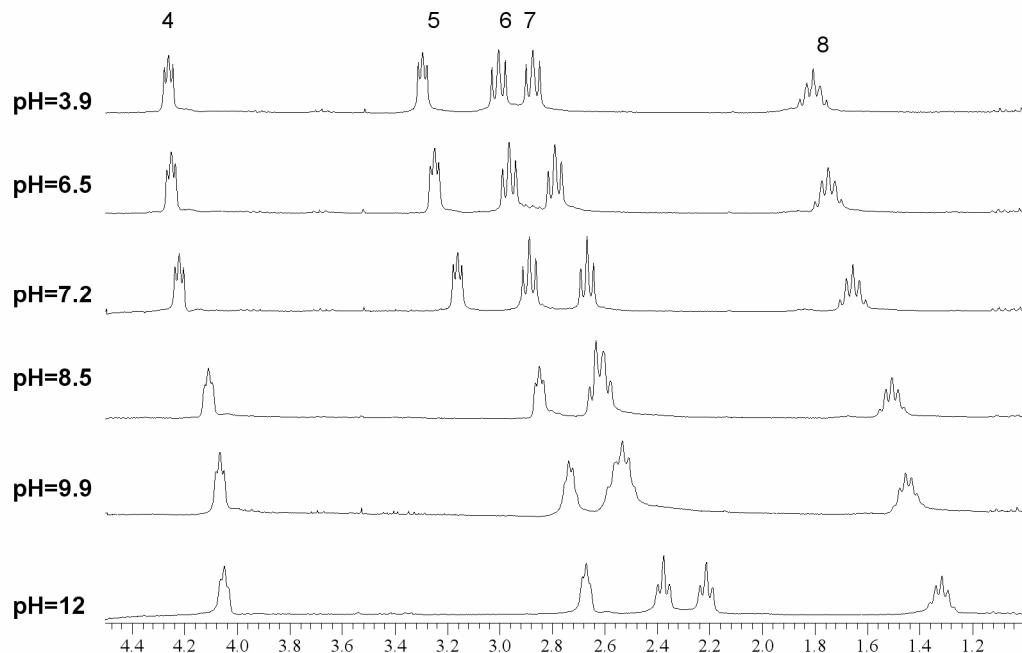
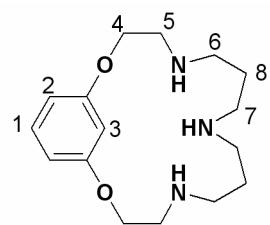
<sup>a</sup> *Dpt. of Inorganic and Organic Chemistry, UAMOA. University Jaume I/CSIC. E-12071 Castellón. Spain. Fax: +34 964728214; Tel: +34 964728239; E-mail: luiss@qio.uji.es*

<sup>b</sup> *Dpt. of Inorganic Chemistry, Instituto de Ciencia Molecular, University of Valencia. P.O. Box 22085, 46071 Valencia. E-mail: Enrique.Garcia-Espana@uv.es*

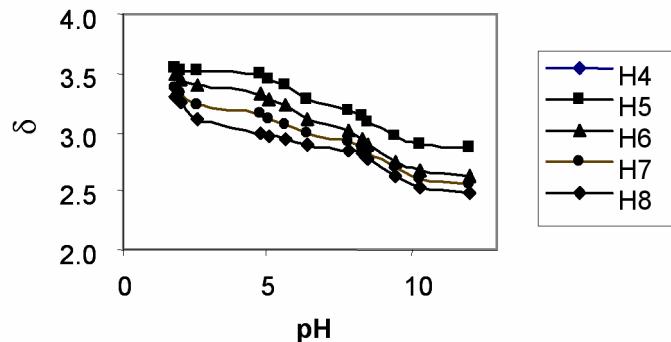
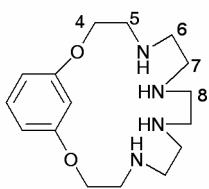
**Electronic Supplementary Information (ESI) available:** NMR titrations, distribution diagrams, suggested protonation sequences, calculated minimum energy structures for the ligands and their complexes.



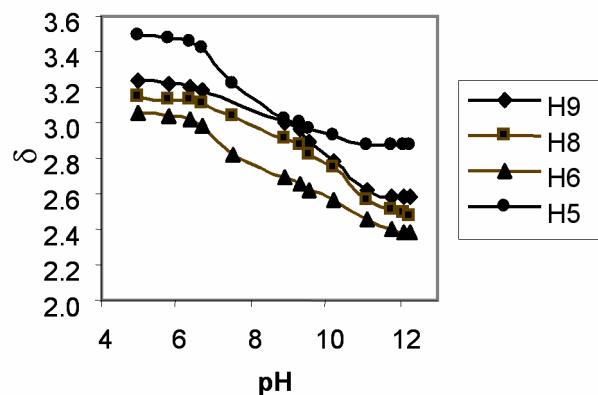
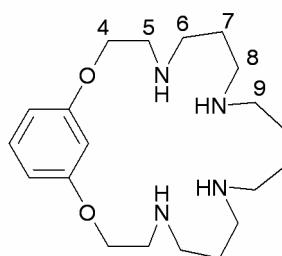
**S1.** Distribution diagrams for the protonation of the receptors prepared in this work.



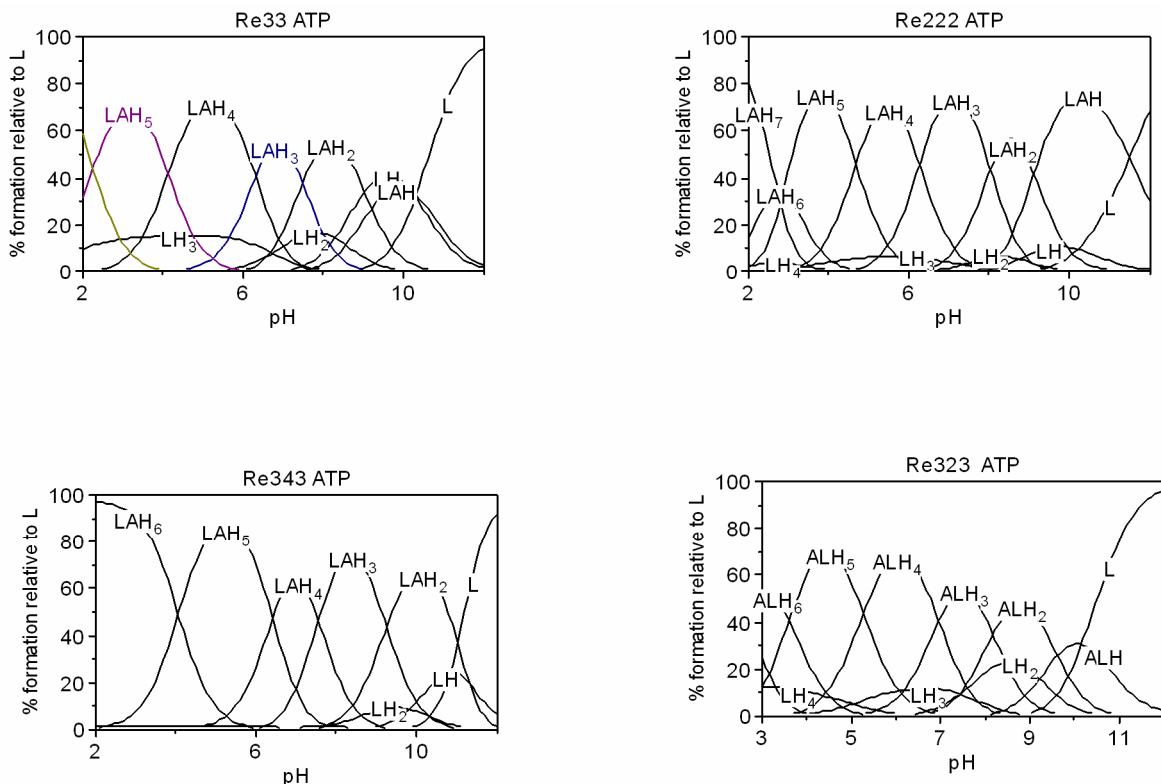
S2. Variation of  $^1\text{H}$  NMR signals upon protonation for receptor **Re33**.



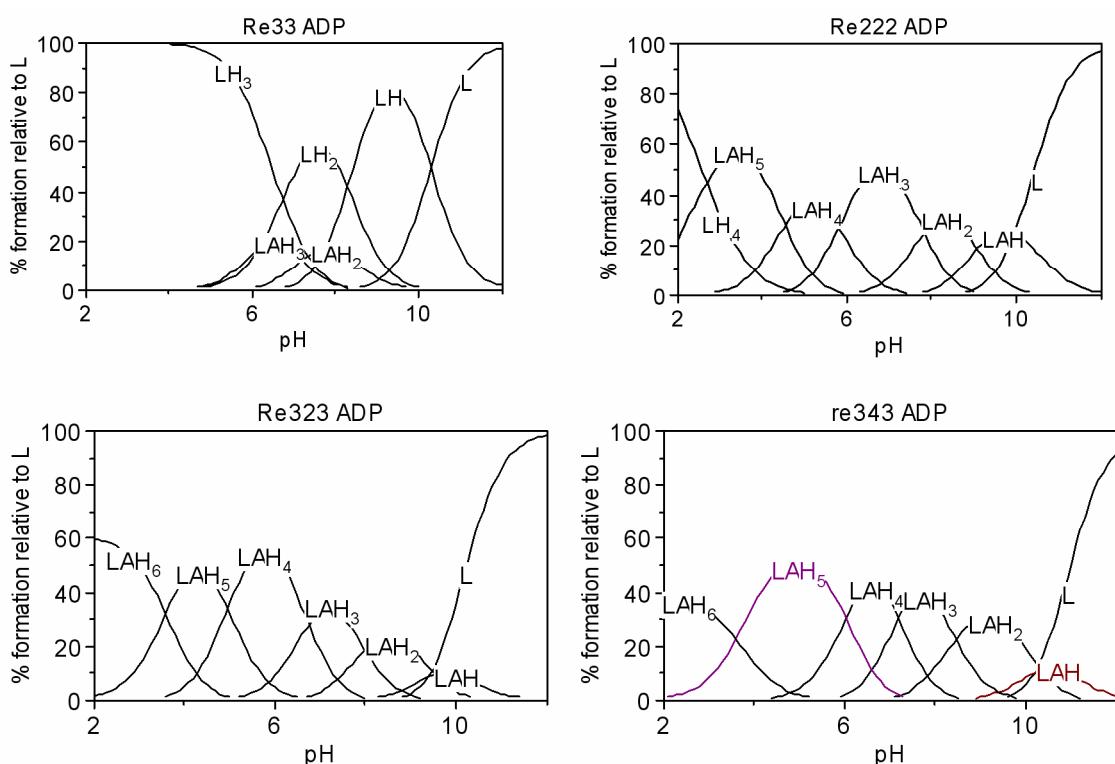
S3. Variation of  $^1\text{H}$  NMR signals upon protonation for receptor **Re222**.



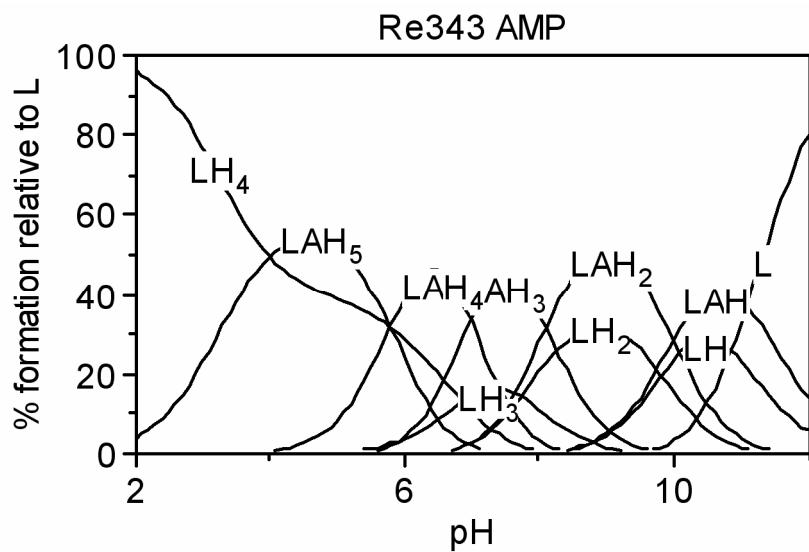
S4. Variation of  $^1\text{H}$  NMR signals upon protonation for receptor **Re343**.



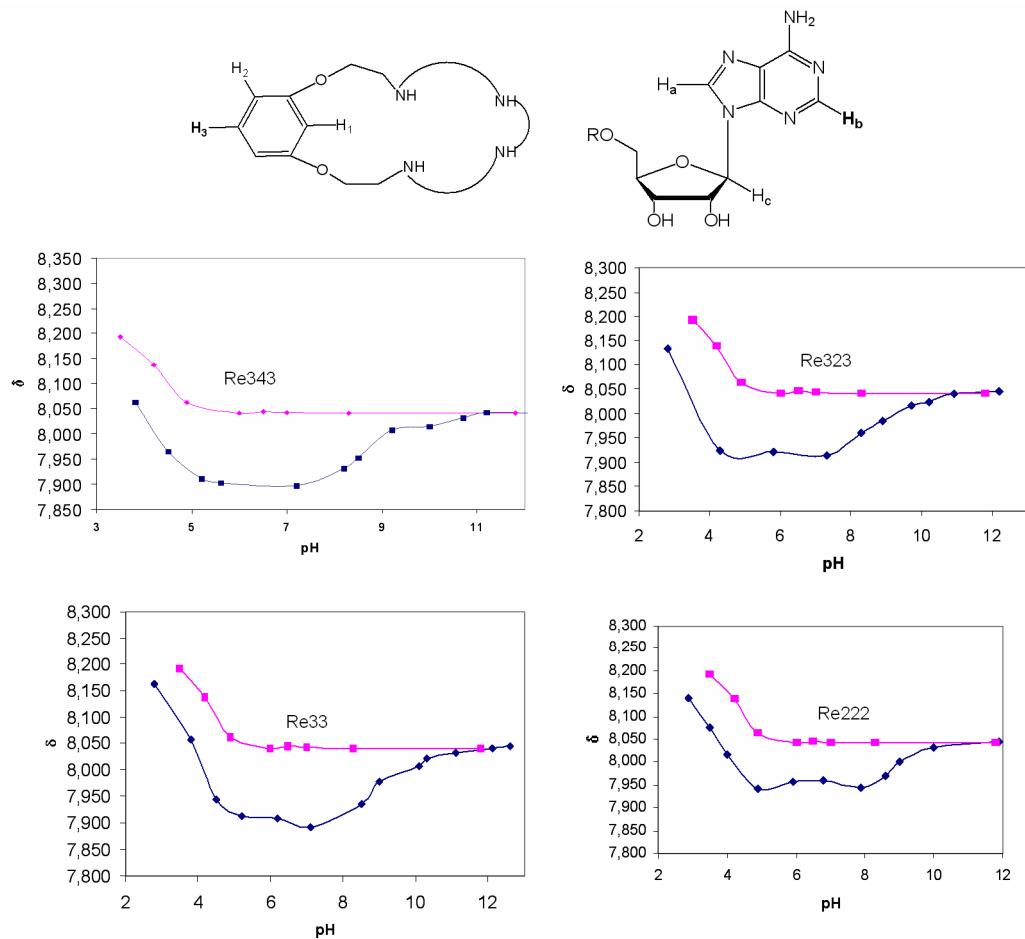
**S5.** Distribution diagrams for the interaction of the receptors prepared in this work with ATP.



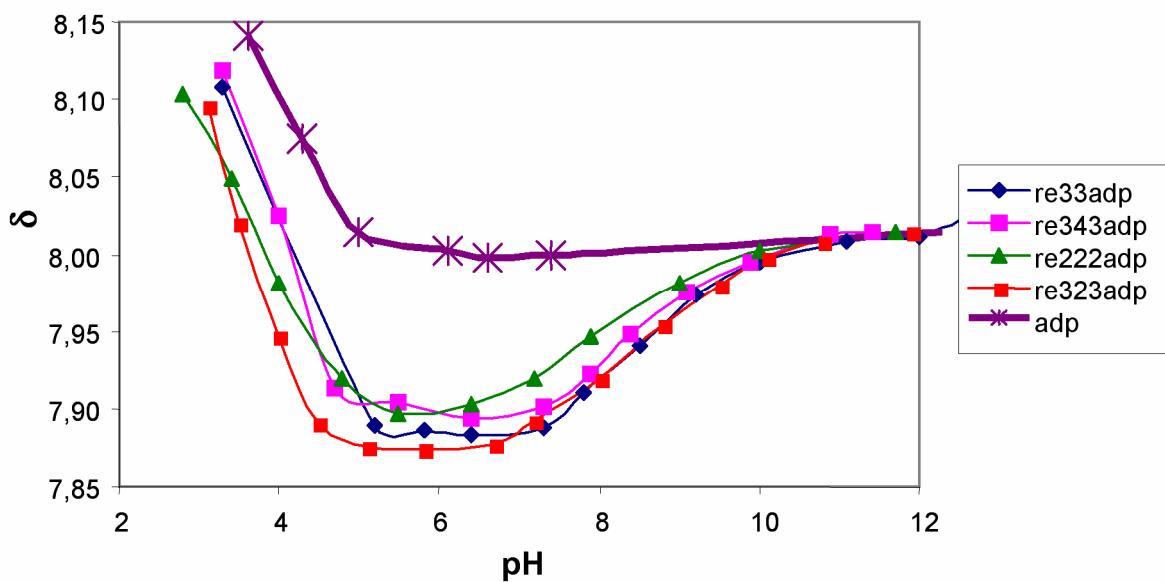
**S6.** Distribution diagrams for the interaction of the receptors prepared in this work with ADP.



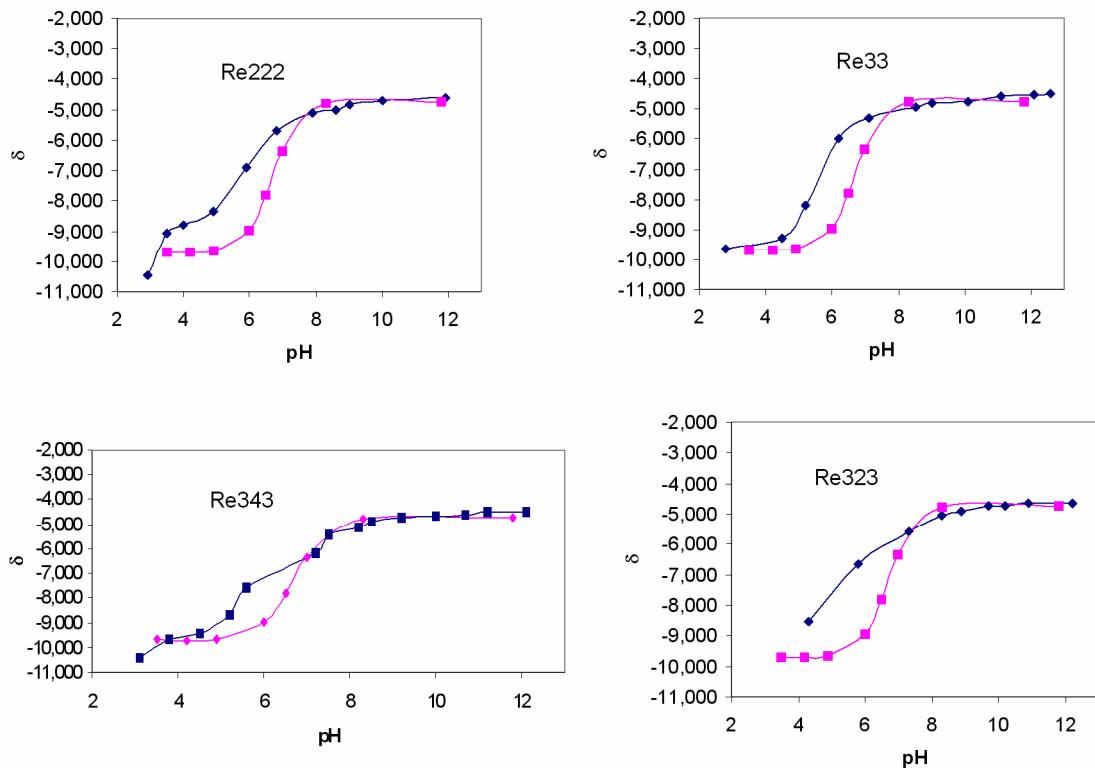
**S7.** Distribution diagram for the interaction of **Re343** with **AMP**.



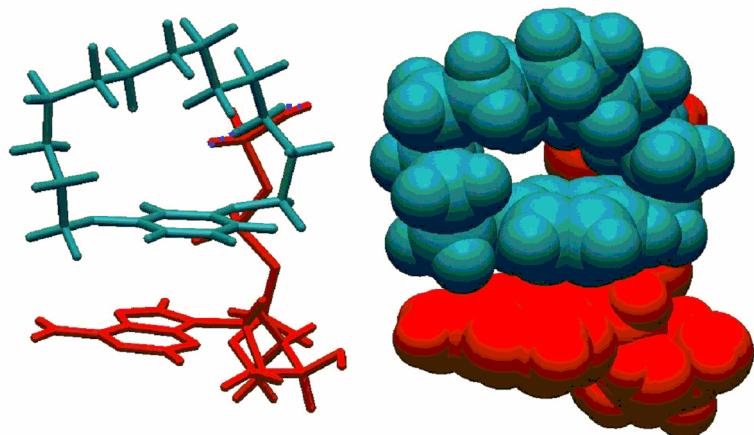
**S8.** Variation of the aromatic  $^1\text{H}$  NMR Hb signal of **ATP** upon interaction with the receptors prepared in this work (red: free ATP).



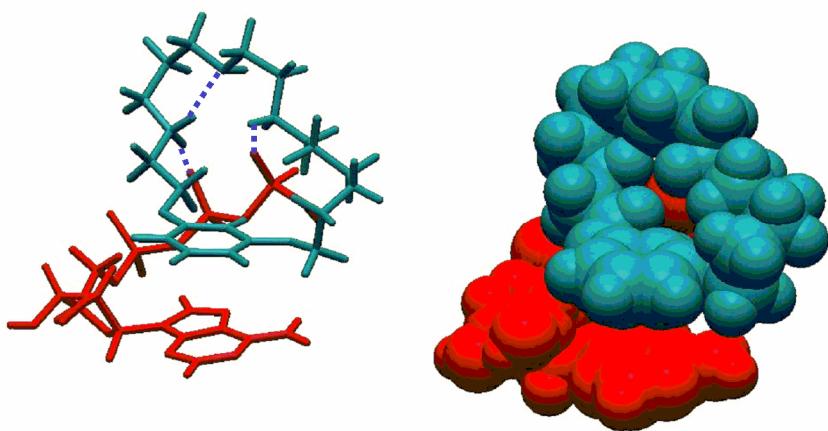
**S9.** Comparison of the variation of the aromatic  $^1\text{H}$  NMR Hb signal of ATP upon interaction with the receptors prepared in this work.



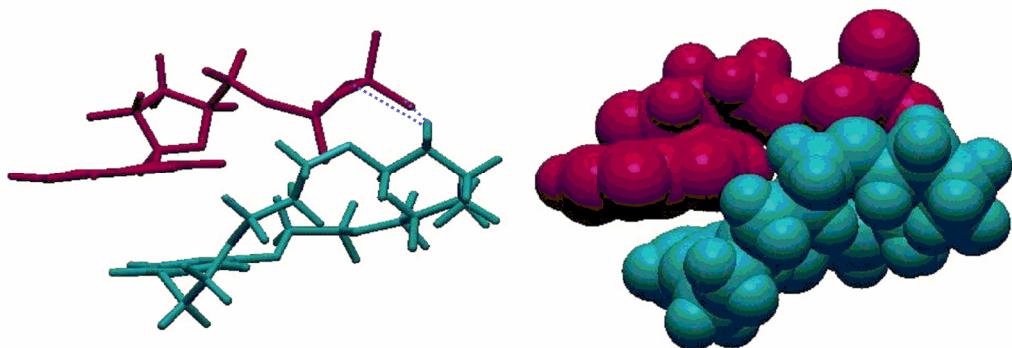
**S10.** Variation of the Py signal of ATP upon interaction with the receptors prepared in this work (red: free ATP).



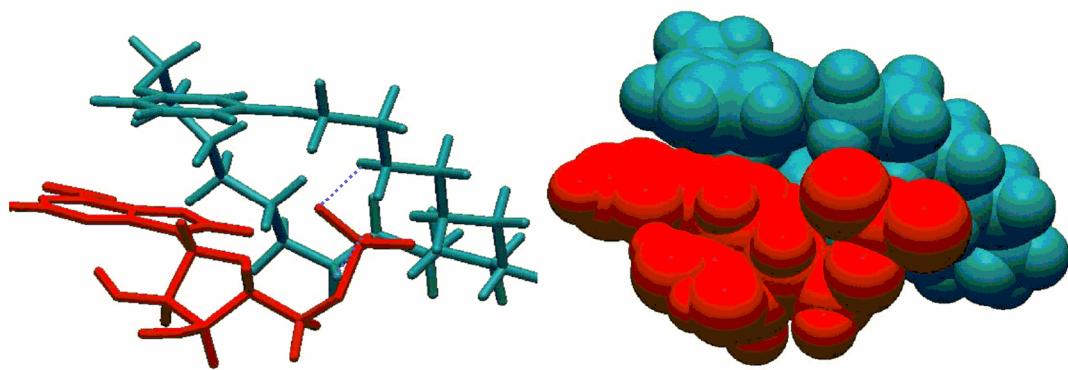
S11. Minimum energy structure calculated for  $\mathbf{H}_3\mathbf{Re33}^{3+}\text{-HATP}^{3-}$



S12. Minimum energy structure calculated for  $\mathbf{H}_3\mathbf{Re323}^{3+}\text{-HATP}^{3-}$



S13. Minimum energy structure calculated for  $\mathbf{H}_3\mathbf{Re343}^{3+}\text{-HADP}^{2-}$



S14. Minimum energy structure calculated for H<sub>3</sub>Re343<sup>3+</sup>-AMP<sup>2-</sup>