

The nature of resonance-assisted hydrogen bonds: a quantum chemical topology perspective

José Manuel Guevara-Vela^a, Eduardo Romero-Montalvo^b, Aurora Costales^a, Ángel Martín Pendás^a, Tomás Rocha Rinza^{b,*}

^aDepartament of Analytical and Physical Chemistry, University of Oviedo, E-33006, Oviedo, Spain.

^bInstitute of Chemistry, National Autonomous University of Mexico, Circuito Exterior, Ciudad Universitaria, Delegación Coyoacán C.P. 04510, Mexico City, Mexico.

Supporting Information

Table S1: Delocalization indices for atom pairs in the ring computed at the HF and MP2 levels.

System (a)					System (b)				
	HF		MP2			HF		MP2	
Pair	open	close	open	close	Pair	open	close	open	close
C1 C2	1.02	1.11	0.92	1.00	C1 C2	0.95	0.95	0.84	0.84
C2 C3	1.60	1.49	1.35	1.27	C2 C3	0.94	0.94	0.83	0.83
C3 O4	0.87	0.92	0.84	0.90	C3 O4	0.78	0.80	0.76	0.77
O4 H5	0.57	0.35	0.54	0.37	O4 H5	0.61	0.54	0.57	0.52
C1 O6	1.27	1.17	1.21	1.13	C1 O6	1.29	1.28	1.23	1.22

System (c)					System (d)				
	HF		MP2			HF		MP2	
Pair	open	close	open	close	Pair	open	close	open	close
C1 C2	1.06	1.12	0.95	1.01	C1 C2	0.95	0.95	0.84	0.84
C2 C3	1.56	1.45	1.32	1.25	C2 C3	0.95	0.94	0.83	0.83
C3 N4	1.00	1.07	0.95	1.01	C3 N4	0.93	0.94	0.86	0.86
N4 H5	0.78	0.61	0.69	0.58	N4 H5	0.87	0.82	0.76	0.72
C1 O6	1.25	1.18	1.19	1.14	C1 O6	1.29	1.28	1.23	1.22

*To whom correspondence should be addressed: tomasrocharinza@gmail.com