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Table 5: Energies (hartee) of the HOMO and LUMO orbitals ( $\epsilon_{HOMO}$  and  $\epsilon_{LUMO}$ , respectively) and HOMO–LUMO gap ( $\epsilon_{gap}$ ) .

basis set	$\epsilon_{HOMO}$	$\epsilon_{LUMO}$	$\epsilon_{gap}$
<b>N<sub>2</sub>O<sub>3</sub></b>			
3s2p	-0.5297	0.1017	0.6314
3s2p1d	-0.4997	0.2091	0.7088
4s3p2d	-0.4961	0.1983	0.6944
4s3p2d1f	-0.4945	0.2020	0.6965
<b>N<sub>4</sub>O<sub>6</sub></b>			
3s2p	-0.5308	0.1015	0.6323
3s2p1d	-0.5023	0.1905	0.6928
4s3p2d	-0.4934	0.1954	0.6888
4s3p2d1f	-0.4928	0.1986	0.6914
<b>N<sub>8</sub>O<sub>12</sub></b>			
3s2p	-0.5104	0.0520	0.5624
3s2p1d	-0.4815	0.1414	0.6229

Table 6: Mulliken total charges on nitrogen and oxygen.

Method	atom	$\text{N}_2\text{O}_3$	$\text{N}_4\text{O}_6$	$\text{N}_8\text{O}_{12}$
$3s2p$	SCF N	0.2595	0.3058	0.2870
	SCF O	-0.1730	-0.2039	-0.1914
MP2	N	0.2034	0.2414	-
	O	-0.1356	-0.1610	-
$3s2p1d$	SCF N	0.2307	0.2044	0.2028
	SCF O	-0.1538	-0.1365	-0.1353
MP2	N	0.1647	0.1416	-
	O	-0.1098	-0.0945	-
$4s3p2d$	SCF N	0.2263	0.2057	-
	SCF O	-0.1507	-0.1371	-
MP2	N	0.1578	-	-
	O	-0.1052	-	-
$4s3p2d1f$	SCF N	0.2278	0.1862	-
	SCF O	-0.1519	-0.1241	-
MP2	N	0.1501	-	-
	O	-0.1000	-	-