

Heats of Combustion of Cyclic and Acyclic Alkanes

ring size	heat of combustion	heat of combustion per CH ₂	ring strain per CH ₂	total ring strain
3	2091 kJ mole ⁻¹	697.1 kJ mole ⁻¹	38.5 kJ mole ⁻¹	115 kJ mole ⁻¹
4	2744 kJ mole ⁻¹	686.1 kJ mole ⁻¹	27.5 kJ mole ⁻¹	110 kJ mole ⁻¹
5	3320 kJ mole ⁻¹	664.0 kJ mole ⁻¹	5.4 kJ mole ⁻¹	27 kJ mole ⁻¹
6	3951 kJ mole ⁻¹	658.6 kJ mole ⁻¹	0.0 kJ mole ⁻¹	0.0 kJ mole ⁻¹
7	4637 kJ mole ⁻¹	662.4 kJ mole ⁻¹	3.8 kJ mole ⁻¹	27 kJ mole ⁻¹
8	5309 kJ mole ⁻¹	663.6 kJ mole ⁻¹	5.0 kJ mole ⁻¹	41 kJ mole ⁻¹
acyclic alkanes		658.6 kJ mole ⁻¹	0.0 kJ mole ⁻¹	0.0 kJ mole ⁻¹