

HITRAN Database Format 1986 - 2001

The following table illustrates the format used for the spectroscopic parameters of the HITRAN database between 1986 and 2001.

Format for HITRAN Parameters, 1986 though 2001																
Parameter	Molecule number	Isotopologue number	Transition wavenumber (cm ⁻¹)	Line Intensity	R ²	Air-broadened width	Self-broadened width	lower-state Energy	Temperature dependence (of air width)	Pressure shift	upper vibrational quanta	lower vibrational quanta	upper local quanta	lower local quanta	Error codes	Reference codes
Field Length	2	1	12	10	10	5	5	10	4	8	3	3	9	9	3	6

HITRAN Database Format 2004-present

The following table illustrates the format used for the spectroscopic parameters starting with the HITRAN'2004 Edition. This format is 160 characters per record (line transition). Note the additional parameters compared to earlier editions.

Format for HITRAN Parameters, Editions after 2001																			
Parameter	Molecule number	Isotopologue number	Transition wavenumber (cm ⁻¹)	Line Intensity	Einstein A-coefficient	Air-broadened width	Self-broadened width	lower-state Energy	Temperature dependence (of air width)	Pressure shift	upper vibrational quanta	lower vibrational quanta	upper local quanta	lower local quanta	Error codes	Reference codes	Flag for line-mixing	upper statistical weight	lower statistical weight
Field Length	2	1	12	10	10	5	5	10	4	8	15	15	15	15	6	12	1	7	7
Data type	Integer	Integer	Real	Real	Real	Real	Real	Real	Real	Real	Text	Text	Text	Text	Integer	Integer	Text	Real	Real