

Measured CH₄ absorption lines at 784 nm

Wavenumber (cm ⁻¹)	λ @ 15°C (Å)	λ @ 21°C (Å)	σ_{\max} (10 ⁻²⁴ cm ² /mol.)	S (10 ⁻²⁶ cm/mol.)	γ_{self} (MHz/Torr)	γ_{air} (MHz/Torr)	γ_{H_2} (MHz/Torr)	γ_{He} (MHz/Torr)
12836.84	7787.94	7787.98	0.14 ± 0.05					
12812.43	7802.77	7802.82						
12812.34	7802.83	7802.87	0.10 ± 0.05					
12812.14	7802.95	7802.99						
12811.78	7803.17	7803.21	0.31 ± 0.05					
12809.62	7804.49	7804.53						
12809.53	7804.54	7804.58						
12809.43	7804.60	7804.65	0.33 ± 0.05					
12807.80	7805.59	7805.64	0.67 ± 0.05					
12807.71	7805.65	7805.69						
12806.52	7806.37	7806.42	1.06 ± 0.05	6.2 ± 0.3	6.2 ± 0.1	5.0 ± 0.1	4.0 ± 0.3	4.5 ± 0.4
12804.95	7807.33	7807.38	0.68 ± 0.05	4.1 ± 0.3	7.1 ± 0.3			
12804.73	7807.47	7807.51						
12804.60	7807.54	7807.59	0.17 ± 0.05					
12803.50	7808.22	7808.26	0.26 ± 0.05					
12803.08	7808.47	7808.52	0.29 ± 0.05					
12801.96	7809.16	7809.20	0.08 ± 0.03					
12801.84	7809.23	7809.27	0.48 ± 0.03					
12800.69	7809.93	7809.97	0.33 ± 0.03					
12799.09	7810.91	7810.95	0.42 ± 0.05					
12798.98	7810.97	7811.02						
12798.94	7811.00	7811.04						
12798.63	7811.19	7811.23						
12798.56	7811.23	7811.27	0.21 ± 0.05					
12798.39	7811.33	7811.38	0.18 ± 0.05					
12798.22	7811.44	7811.48						
12798.10	7811.51	7811.55						
12797.98	7811.58	7811.63						
12797.29	7812.00	7812.05	0.28 ± 0.05					
12794.27	7813.85	7813.89	0.18 ± 0.05					
12794.13	7813.93	7813.98	0.15 ± 0.05					
12793.62	7814.25	7814.29						
12793.54	7814.29	7814.34						
12793.37	7814.40	7814.44	0.49 ± 0.05					
12793.24	7814.48	7814.52						
12793.13	7814.55	7814.59						
12792.43	7814.97	7815.02	0.30 ± 0.05					
12792.02	7815.22	7815.27						
12791.87	7815.31	7815.36	0.31 ± 0.05					
12791.19	7815.73	7815.77	0.19 ± 0.05					
12790.98	7815.86	7815.90						
12790.55	7816.12	7816.17						
12790.47	7816.17	7816.21	0.30 ± 0.05					
12781.82	7821.46	7821.50	0.38 ± 0.05					
12781.41	7821.71	7821.75	0.56 ± 0.05					
12781.11	7821.89	7821.94	0.31 ± 0.05					
12779.52	7822.87	7822.91	0.49 ± 0.05					

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12779.13	7823.11	7823.15	0.32 ± 0.05				
12778.58	7823.44	7823.49	0.34 ± 0.05				
12778.27	7823.63	7823.68	0.24 ± 0.05				
12777.81	7823.91	7823.96					
12777.72	7823.97	7824.01					
12777.65	7824.01	7824.06					
12777.41	7824.16	7824.20	0.19 ± 0.05				
12777.34	7824.20	7824.25					
12775.61	7825.26	7825.31	0.15 ± 0.05				
12775.42	7825.42	7825.46	0.16 ± 0.05				
12775.28	7825.46	7825.51	0.24 ± 0.05				
12774.93	7825.68	7825.72	0.14 ± 0.05				
12774.72	7825.81	7825.85					
12774.27	7826.08	7826.13	0.45 ± 0.05				
12773.83	7826.35	7826.40	0.77 ± 0.05	4.4 ± 0.2	4.4 ± 0.1		
12767.30	7830.36	7830.40					
12767.14	7830.45	7830.50	0.90 ± 0.06	5.0 ± 0.2	3.7 ± 0.2		
12767.00	7830.54	7830.58					
12762.97	7833.01	7833.06	0.26 ± 0.05				
12762.29	7833.43	7833.47					
12762.20	7833.48	7833.53					
12762.00	7833.61	7833.65	0.11 ± 0.05				
12761.92	7833.66	7833.70					
12761.83	7833.71	7833.76					
12761.33	7834.02	7834.06	0.14 ± 0.05				
12760.86	7834.31	7834.35	0.35 ± 0.05				
12760.73	7834.39	7834.43	0.64 ± 0.05				
12760.57	7834.48	7834.53	0.22 ± 0.05				
12759.81	7834.95	7835.00	0.22 ± 0.05				
12759.52	7834.66	7834.70					
12759.42	7835.19	7835.24	0.40 ± 0.1				
12759.23	7835.31	7835.35					
12757.74	7836.22	7836.27					
12757.48	7836.38	7836.43					
12757.19	7836.56	7836.61	0.94 ± 0.05				
12757.11	7836.61	7836.65					
12756.90	7836.74	7836.78	0.38 ± 0.05				
12756.65	7836.89	7836.94					
12756.36	7837.07	7837.11	1.0 ± 0.1				
12755.48	7837.61	7837.66					
12755.36	7837.69	7837.73					
12755.13	7837.83	7837.87	0.41 ± 0.05				
12755.00	7837.91	7837.95					
12753.52	7838.82	7838.86	0.79 ± 0.08				
12753.44	7838.86	7838.91					
12752.18	7839.64	7839.68					
12752.08	7839.70	7839.75					
12751.08	7840.32	7840.36	1.0 ± 0.1				
12749.46	7841.31	7841.36	0.25 ± 0.05				

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12749.12	7841.52	7841.57						
12746.48	7843.15	7843.19	0.50 ± 0.05					
12746.05	7843.41	7843.45	0.31 ± 0.05					
12742.99	7845.29	7845.34	0.33 ± 0.05					
12742.21	7845.77	7845.82	0.30 ± 0.05					
12741.22	7846.38	7846.43	0.22 ± 0.05					
12740.15	7847.04	7847.09	0.39 ± 0.05					
12737.32	7848.79	7848.83	0.16 ± 0.05					
12729.71	7853.48	7853.52	0.4 ± 0.1					
12729.43	7853.65	7853.69	0.17 ± 0.05					
12721.87	7858.32	7858.36	0.20 ± 0.05					
12714.64	7862.79	7862.83						
12714.48	7862.89	7862.93	0.55 ± 0.06					
12713.30	7863.61	7863.66	0.92 ± 0.06	5.4 ± 0.3	5.3 ± 0.1	4.8 ± 0.4	2.1 ± 0.2	2.1 ± 0.2
12712.19	7864.30	7864.35	0.27 ± 0.05					
12695.17	7874.85	7874.89	0.22 ± 0.06					