

North Polar Saturated Atmosphere Profile

The following figures and tables are based on a CO₂ saturated atmosphere over the winter polar cap. The model atmosphere is based on the Clausius-Clapeyron relation: $\ln P = 23.3494 - 3182.48/T$ (MARS p 959.9), and a mean atomic weight of 43.3463.

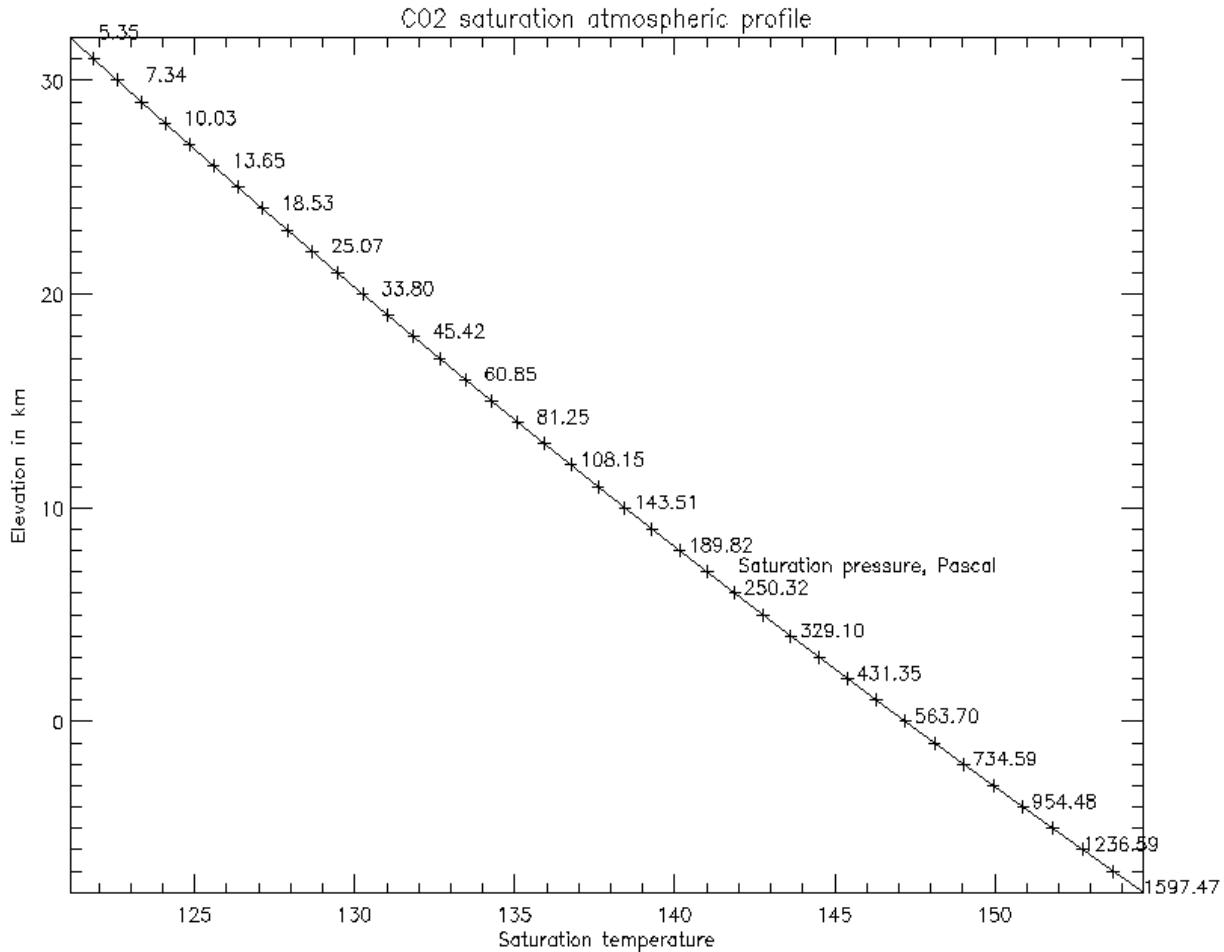


Figure 1: Elevation vs. temperature for a standard saturated polar atmosphere.

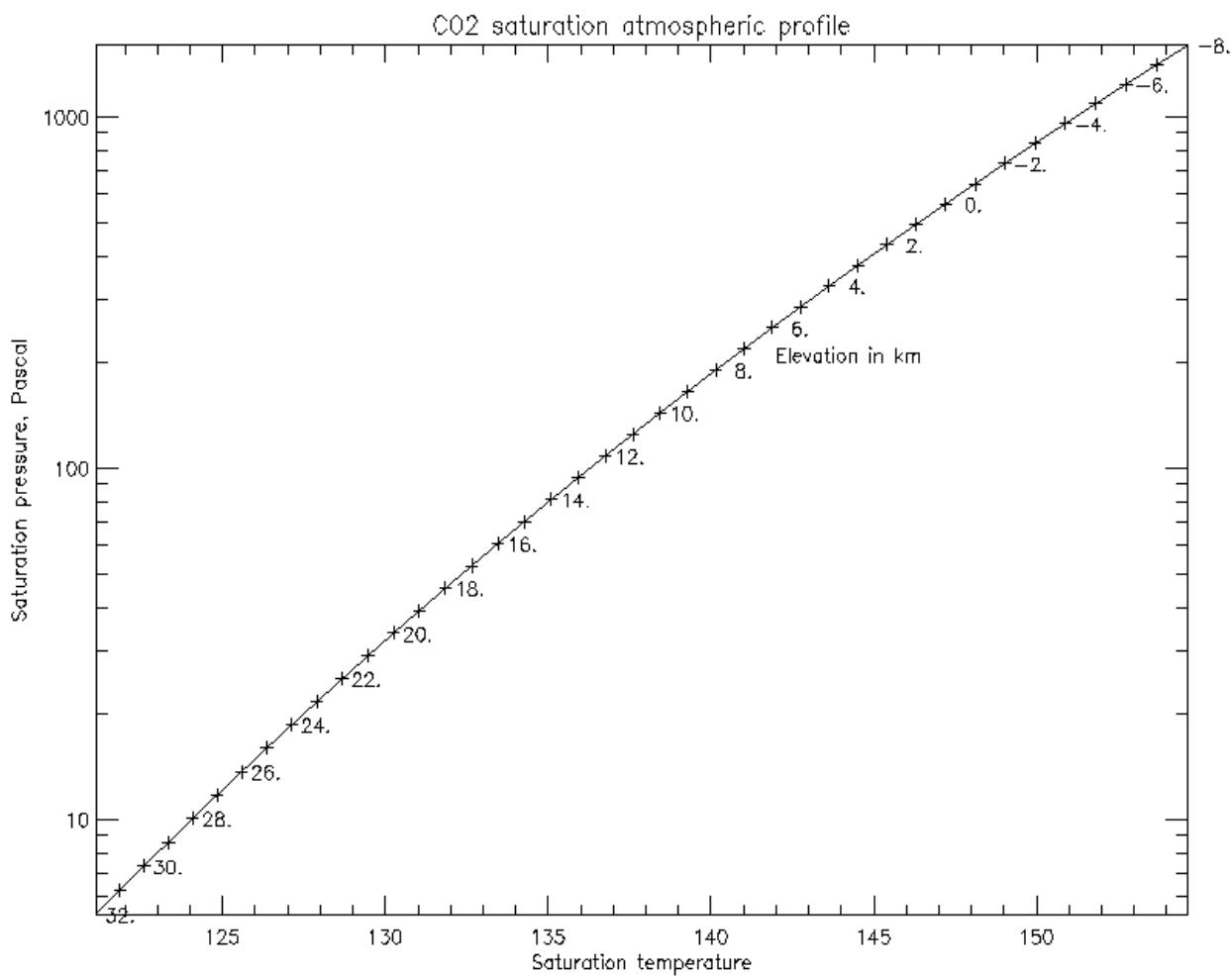


Figure 2: Pressure vs. temperature for a standard saturated polar atmosphere.

Raw data from Figures 1 and 2:

| | | | | | |
|--------------|--------------|-------------|-----|--------|--------|
| Elev [km] | Pres [Pa] | Temp [K] | 12. | 108.15 | 136.76 |
| -8. | 1597.47 | 154.66 | 13. | 93.78 | 135.93 |
| -7. | 1406.00 | 153.70 | 14. | 81.25 | 135.10 |
| -6. | 1236.59 | 152.75 | 15. | 70.34 | 134.28 |
| -5. | 1086.80 | 151.81 | 16. | 60.85 | 133.46 |
| -4. | 954.48 | 150.88 | 17. | 52.60 | 132.65 |
| -3. | 837.65 | 149.95 | 18. | 45.42 | 131.85 |
| -2. | 734.59 | 149.03 | 19. | 39.20 | 131.05 |
| -1. | 643.73 | 148.11 | 20. | 33.80 | 130.25 |
| 0. | 563.70 | 147.20 | 21. | 29.12 | 129.46 |
| 1. | 493.29 | 146.30 | 22. | 25.07 | 128.68 |
| 2. | 431.35 | 145.40 | 23. | 21.56 | 127.90 |
| 3. | 376.91 | 144.51 | 24. | 18.53 | 127.12 |
| 4. | 329.10 | 143.63 | 25. | 15.91 | 126.35 |
| 5. | 287.13 | 142.75 | 26. | 13.65 | 125.59 |
| 6. | 250.32 | 141.88 | 27. | 11.70 | 124.83 |
| 7. | 218.07 | 141.01 | 28. | 10.03 | 124.08 |
| 8. | 189.82 | 140.15 | 29. | 8.58 | 123.33 |
| 9. | 165.11 | 139.29 | 30. | 7.34 | 122.59 |
| 10. | 143.51 | 138.44 | 31. | 6.27 | 121.85 |
| 11. | 124.63 | 137.60 | 32. | 5.35 | 121.11 |