

seen from the TG curve that the weight loss after heating is approximately 19%. This is due to the release of gaseous species of H₂O with evolution curves 18, 17, 16. In the second and third steps, the escape of CO₂ (evolution curves 44,16,45,46), NH₃ (evolution curves 16,17,15), N₂O (evolution curves 44, 30, 16), NO (15), and SO₂/SO (evolution curves 48/64) from the Cu /TiO₂_N sample were observed [1]. The sample mass spectra (MS) with lines indicated the peaks of each species by using the NIST Mass Spectral Search Program (Software version 2.2) [2] are presented in Figures S2-S10.

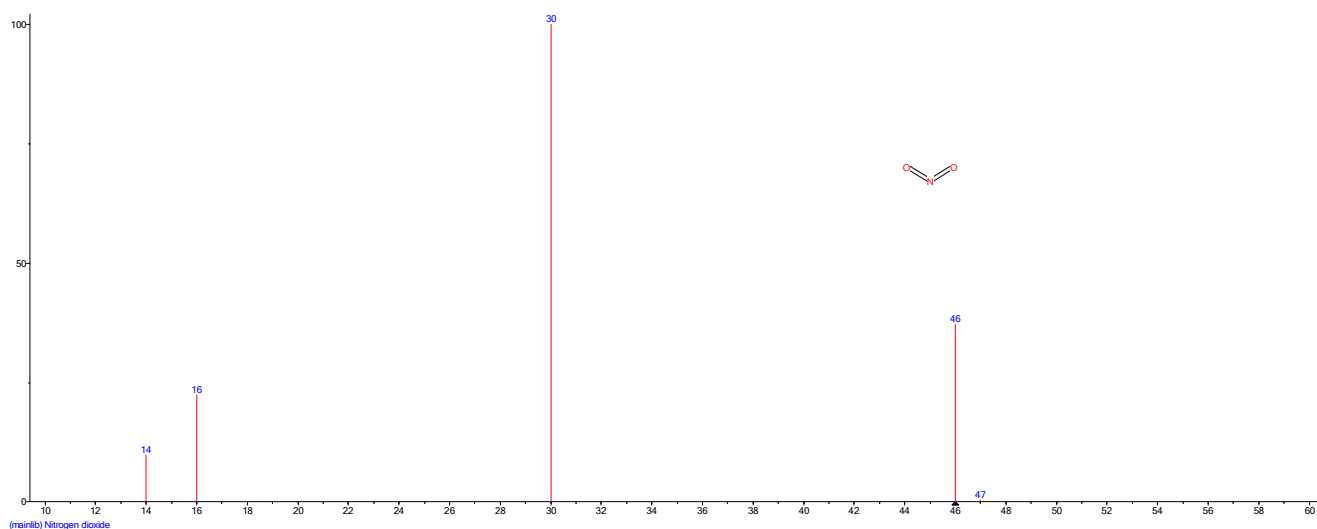


Figure S2. Evolution of gas fragments of NO₂

5 largest peaks:

30 999 | 46 370 | 16 223 | 14 96 | 47 1 |

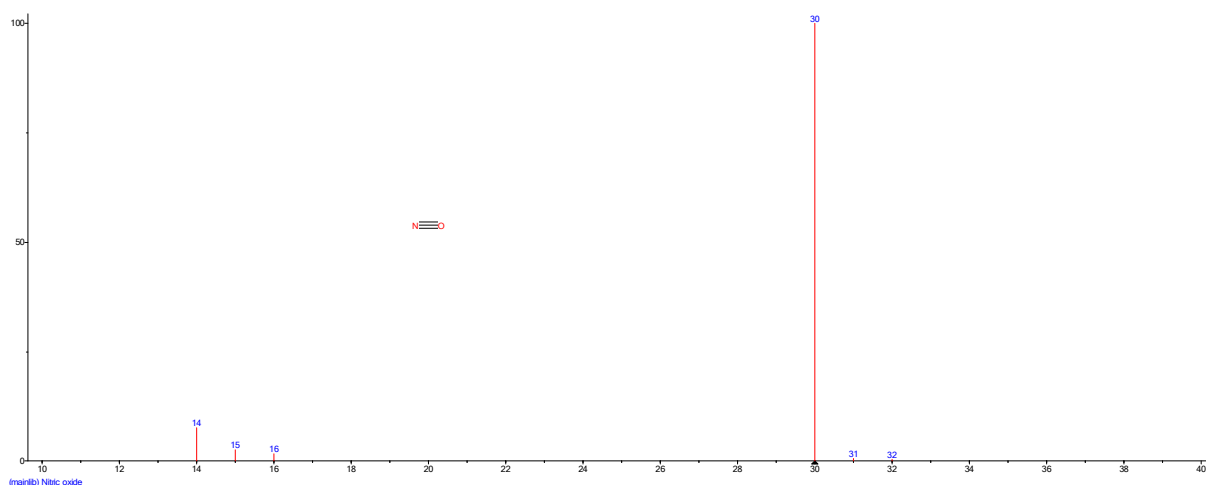


Figure S3. Evolution of gas fragments of NO

6 largest peaks:

30 999 | 14 75 | 15 24 | 16 15 | 31 4 | 32 2 |

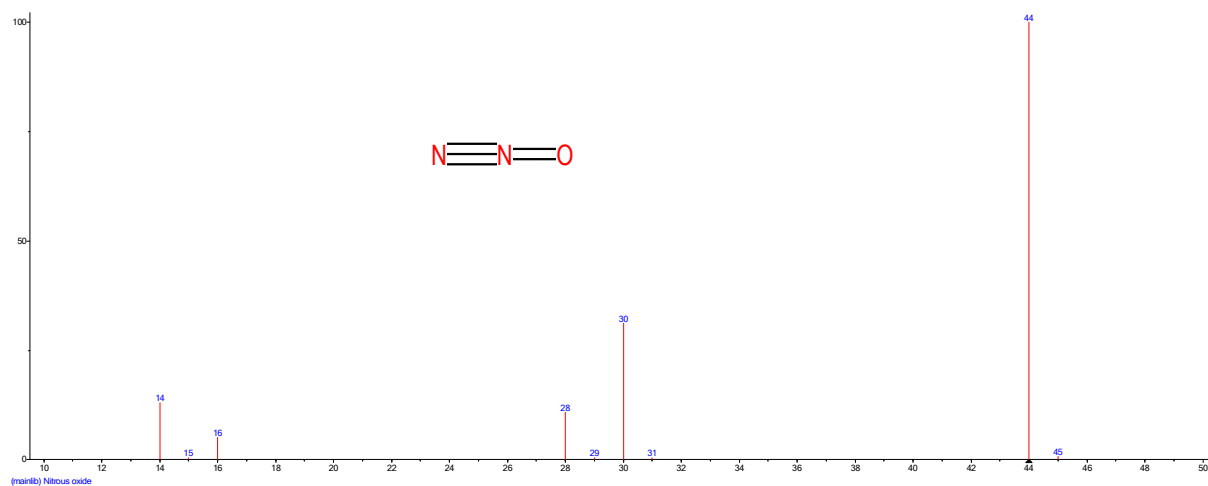


Figure S4. Evolution of gas fragments of N_2O

9 largest peaks:

44 999 | 30 311 | 14 129 | 28 108 | 16 50 |
45 7 | 15 1 | 29 1 | 31 1 |

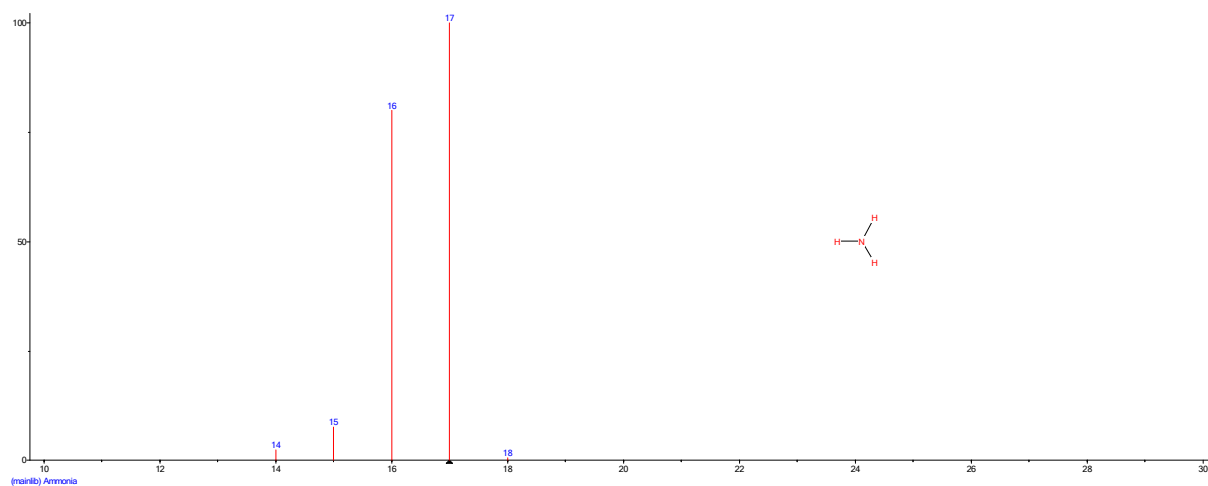


Figure S5. Evolution of gas fragments of NH_3

5 largest peaks:

17 999 | 16 800 | 15 75 | 14 22 | 18 4 |

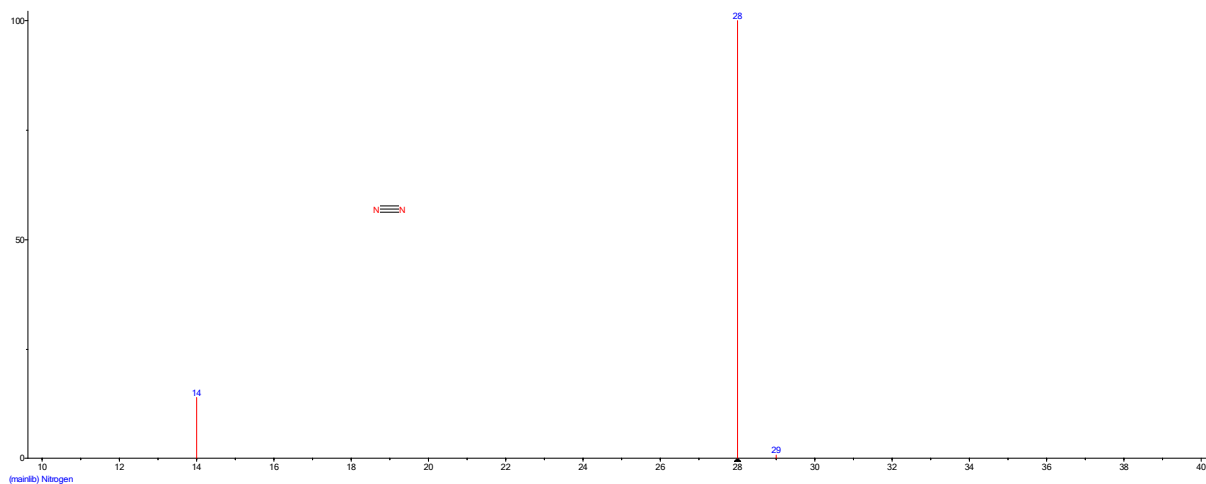


Figure S6. Evolution of gas fragments of N_2

3 largest peaks:

28 999 | 14 137 | 29 7 |

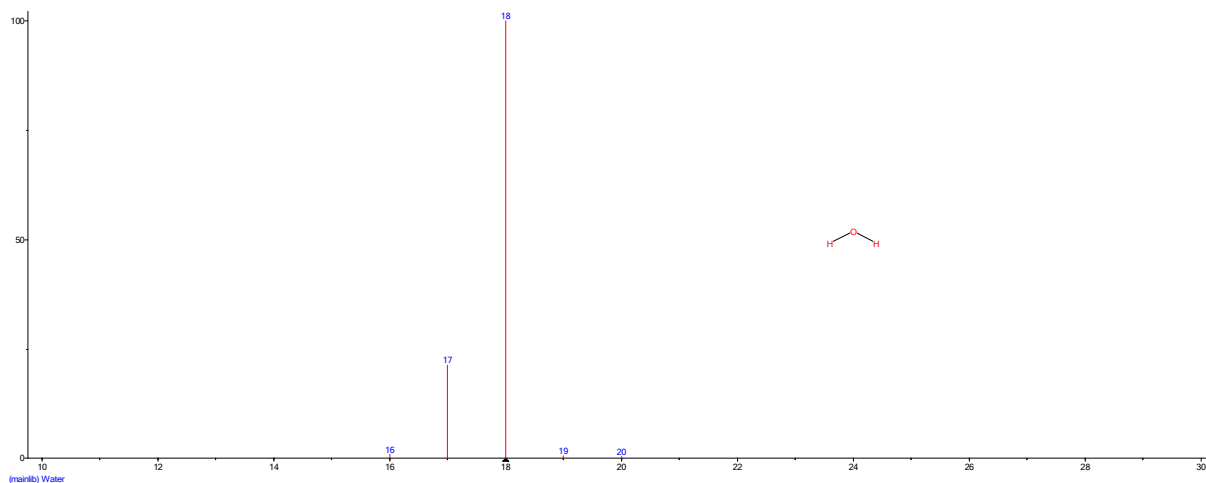


Figure S7. Evolution of gas fragments of H_2O

5 largest peaks:

18 999 | 17 212 | 16 9 | 19 5 | 20 3 |

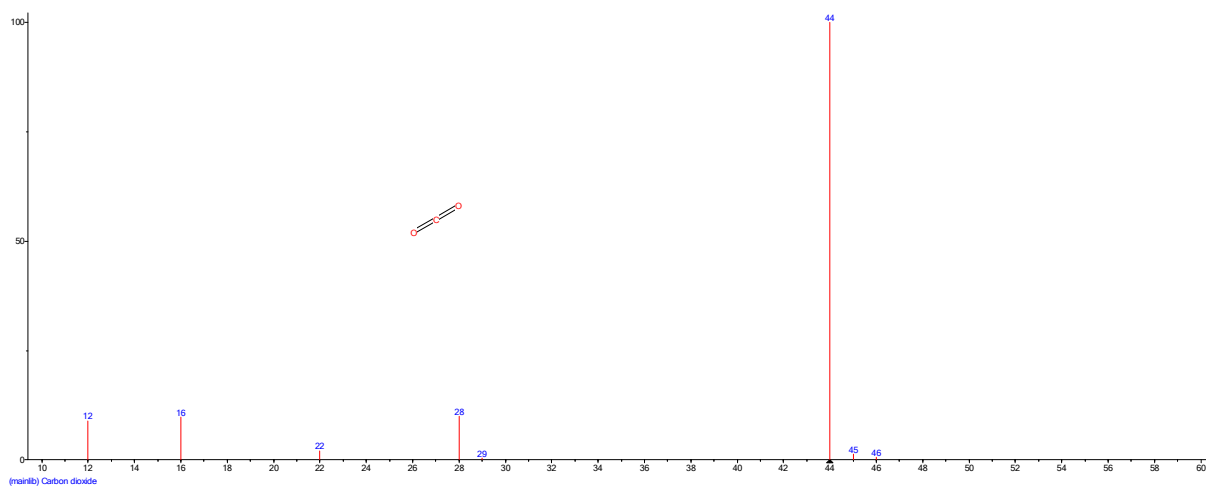


Figure S8. Evolution of gas fragments of CO₂

8 largest peaks:

44 999 | 28 98 | 16 96 | 12 87 | 22 19 |
45 12 | 46 4 | 29 1 |

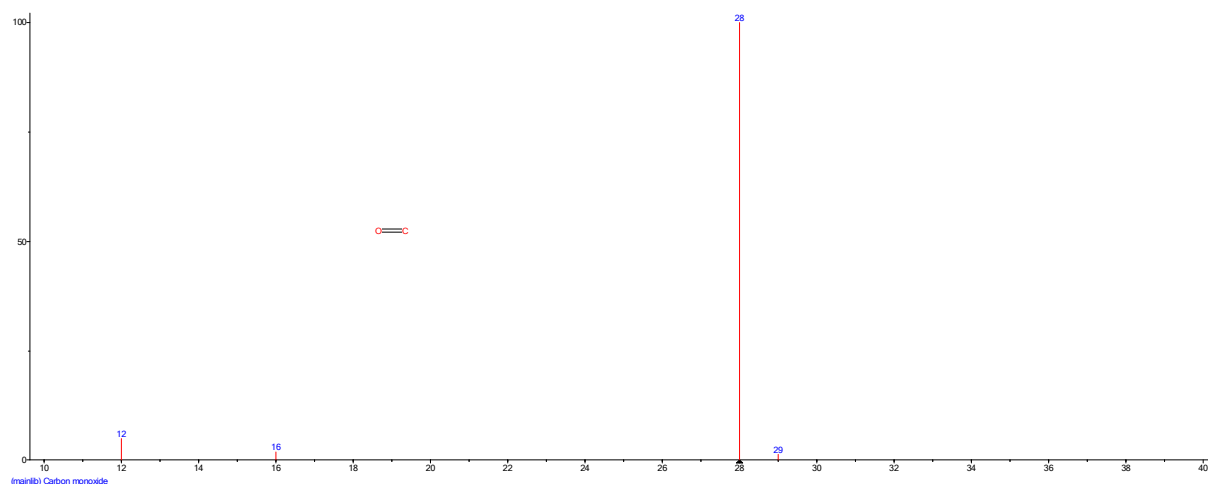


Figure S9. Evolution of gas fragments of CO

4 largest peaks:

28 999 | 12 47 | 16 17 | 29 12 |

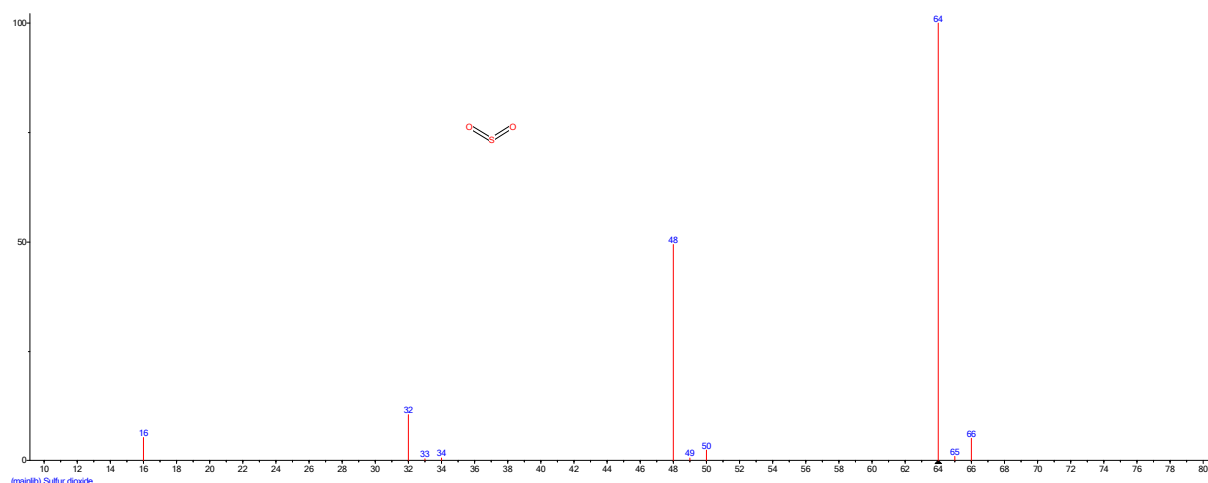


Figure S10. Evolution of gas fragments of SO₂

10 largest peaks:

64 999 | 48 493 | 32 104 | 16 52 | 66 49 |
50 23 | 65 9 | 34 4 | 49 4 | 33 1 |

REFERENCES

[1] Madarász, J., Varga, P., Pokol, G., Evolved gas analyses (TG/DTA–MS and TG–FTIR) on dehydration and pyrolysis of magnesium nitrate hexahydrate in air and nitrogen, *J Anal and Applied Pyrolysis*, 2007, 79, 475–478.

[2] Stein, S., Mrokhin, Y., Tchekhovkoi, D., Mallard, W., NIST/EPA/NIH Mass Spectral Library with NIST Mass Spectral Search Program (Software version 2.2) 2014, NIST, the U.S. Secretary of Commerce.