

Stickstoffoxide:  $N_2O$ ;  $NO$ ;  $N_2O_3$ ;  $NO_2$ ;  $N_2O_4$ ;  $N_2O_5$

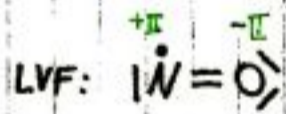
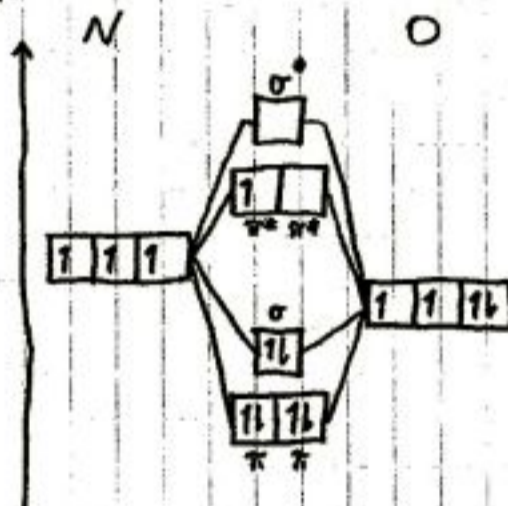
- Diese Stickoxide sind alle kinetisch stabil, aber thermodynamisch instabil

-  $N_2O$ : (Lachgas)

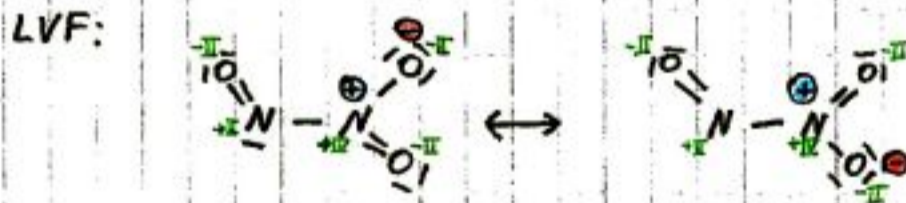


-  $NO$ : (Stickstoffmonoxid)

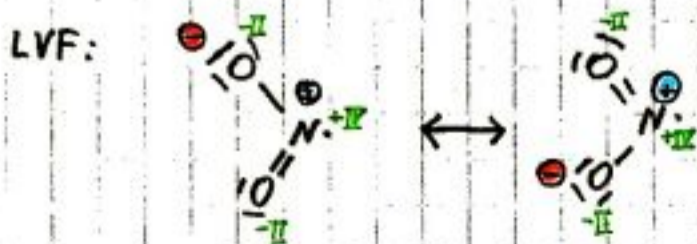
MO-Schema:



-  $N_2O_3$ : (Distickstofftrioxid)



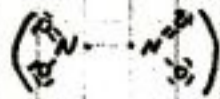
-  $NO_2$ : (Stickstoffdioxid)



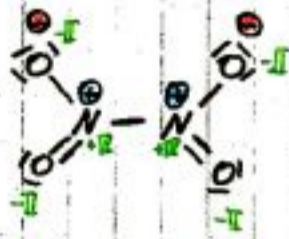


-  $N_2O_4$ : (Distickstofftetraoxid)

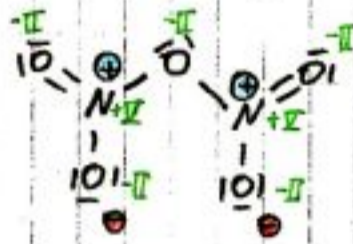
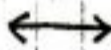
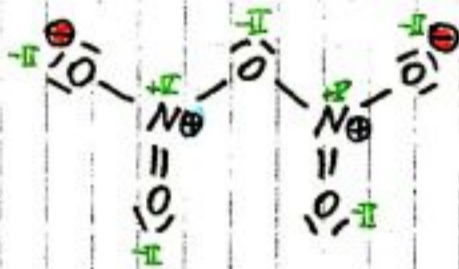
! Dimer von  $NO_2$ !



LVF:



-  $N_2O_5$ : (Distickstoffpentaoxid)





### Wichtige Reaktionen:

- $2\text{NO}_2(\text{g}) + \text{H}_2\text{O}(\text{l}) \rightarrow \text{HNO}_2(\text{aq}) + \text{H}^{\oplus}_{(\text{aq})} + \text{NO}_3^{\ominus}(\text{aq})$
- $\text{NO} + \text{NO}_2 \rightleftharpoons \text{N}_2\text{O}_3$
- $\text{N}_2\text{O}_3 + \text{H}_2\text{O} \rightarrow 2\text{HNO}_2$
- $\text{NO} + \text{O}_2 \rightarrow 2\text{NO}_2$
- $\text{Cu} + 4\text{HNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{H}_2\text{O} + 2\text{NO}_2 \uparrow$
- $\text{H}_2\text{O} + 2\text{NO}_2 \rightarrow \text{HNO}_2 + \text{HNO}_3$
- $3\text{N}_2\text{O}_3 + \text{H}_2\text{O} \rightarrow 2\text{HNO}_3 + 4\text{NO}$