

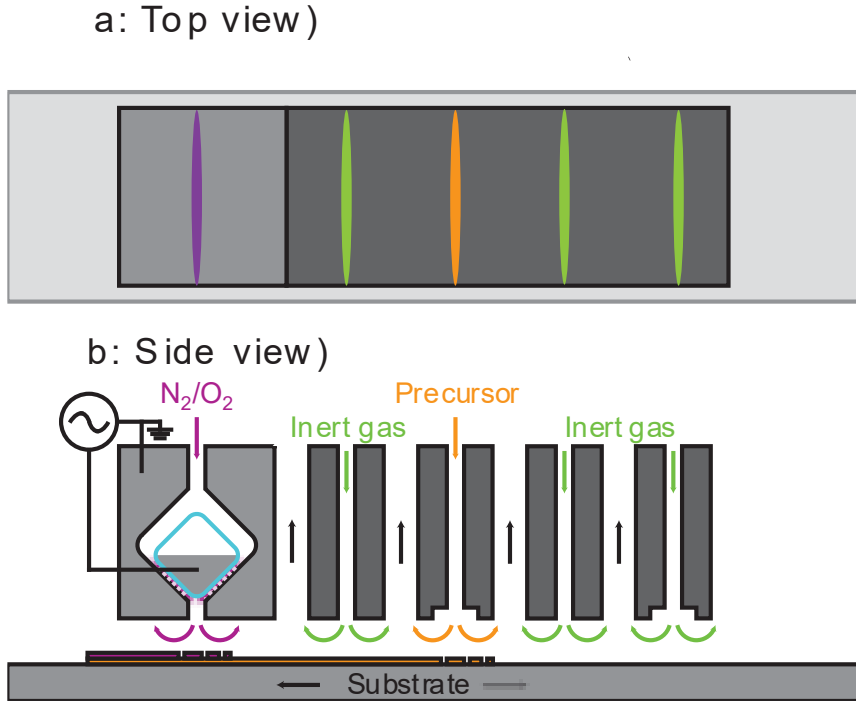


Figure S1. top view a) and side view b) of the experimental setup of the atmospheric-pressure dielectric barrier discharge (DBD) reactor implemented in a SALD tool, indicating the gas inlet, high-voltage AC power supply, and dielectric components in light blue. The DBD is used as an oxidizing co-reactant separated by precursors using inert gas.

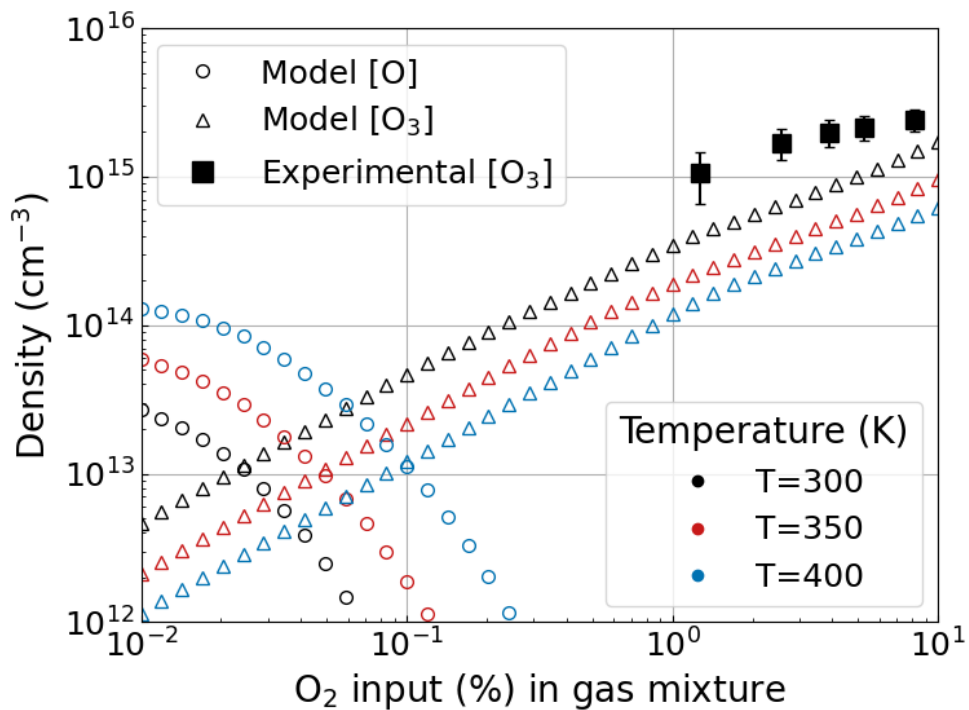


Figure S2. Experimentally determined ozone densities by broadband UV absorption spectroscopy. The ozone detection limit is approximately $5 \cdot 10^{14} \text{ cm}^{-3}$. The figures includes an example of a plug-flow reactor model result describing the axial evolution of atomic oxygen and ozone densities in the plasma afterglow as function of the gas temperature and O₂ input in the gas mixture. The models includes dissociation and three-body recombination reactions. The model shows that atomic oxygen is expected for low O₂ input in the gas mixture at settings where ozone cannot be determined due to the detection limit.