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On plasma based species deposition at a Pyrex surface studied by post plasma N_xO_y conversion J. ROEPCKE, INP-Greifswald, Felix-Hausdorff-Str. 2, 17489 Greifswald, M. HUEBNER, INP-Greifswald, Felix-Hausdorff-Str. 2, 17489 Greifswald, Germany, D. MARINOV, O. GUAITELLA, A. ROUSSEAU, LPP, Ecole Polytechnique, UPMC, Universite Paris Sud-11, CNRS, Palaiseau, France, C.D. PINTASSILGO, IPFN-Laboratorio Associado, IST, 1049-001 Lisboa, Portugal, V. GUERRA, Instituto de Plasmas e Fusao Nuclear - Laboratorio Associado, Instituto Superior Tecnico, 1049-001 Lisboa, Portugal, INP-GREIFSWALD COLLABORATION, LPP, ECOLE POLYTECHNIQUE COLLABORATION, INSTITUTO DE PLASMAS E FUSAO NUCLEAR COLLABORATION, FACULDADE DE ENGENHARIA COLLABORATION — The deposition of atomic species at the inner surface of a Pyrex tube RF plasma reactor was studied by measuring the time dependent conversion of N_xO_y in a post plasma experiment. First the inner surface of the tube was treated by a capacitively coupled RF plasma with different precursors. Then following the plasma phase, after evacuation a gas mixture (1% N_xO_y in N_2) was filled into the tube. The time evolutions of NO, NO_2 and N_2O were measured using a 3 laser QCLAS system. It was found, that only after the usage of oxygen containing precursor gases NO was oxidised into NO_2. The N_2O concentration did not show any changes over time. A modelling approach showed good agreement with the experiment.

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