Claims:

1. Method for incinerating waste (46) on a combustion grate (2) of a furnace (1), in which oxygen having a carrier gas is fed to the combustion as an oxygen-carrier gas mixture, wherein the carrier gas is recirculated gas from the furnace (1) with a CO_2 concentration of 10 to 99%, and the oxygen is mixed with the carrier gas prior to being supplied into the furnace (1), wherein the oxygen-carrier gas mixture is added to the secondary combustion, **characterized in that**, before the oxygen-carrier gas mixture is fed to the furnace, it is set to the needs of the operation by adding oxygen in order to individually adjust the CO_2 content in the oxygen-carrier gas mixture.

2. Method according to claim 1, ***characterized in that*** the oxygen-carrier gas mixture is added at an oxygen concentration of 5 to 40% and preferably of 16 to 40%.

3. Method according to one of the preceding claims, ***characterized in that*** the carrier gas contains air, in particular atmospheric air.

4. Method according to one of the preceding claims, ***characterized in that*** the recirculated gas is extracted after a processing of the waste gas (51) from the furnace (1).

5. Method according to one of the preceding claims, ***characterized in that*** at least a part of the waste gas (51) from the furnace (1) is supplied to a post-processing (54), in which the CO_2 is separated out.