

METHOD AND TREATMENT FACILITY FOR THE PHYSICAL AND
THERMOCHEMICAL TREATMENT OF BIOMASS

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Abstract

The invention relates to a method for the physical and thermochemical treatment of biomass (5), in which the moisture content of the biomass (5) is reduced in a drying device (4) and ammonia (NH_3) is also released from the biomass (5) during the drying process. The dried biomass (5) is then either pyrolyzed in a pyrolysis reactor (2) and the pyrolysis gas is forwarded to a combustion device (3) and is combusted therein to form flue gas, or is combusted in a combustion facility unit (17) to form flue gas, and in either case the flue gas is fed to a mixing device (9). Oxygen (O_2) is metered to the flue gas in the mixing device (9) and is fed directly to the drying device (4) as drying gas. As the drying gas passes through the drying device (4), the sulfur dioxide (SO_2) contained in the drying gas and/or the sulfur trioxide (SO_3) chemically reacts with the ammonia (NH_3) to form ammonium sulfite ($(\text{NH}_4)_2\text{SO}_3$) and/or ammonium sulfate ($(\text{NH}_4)_2\text{SO}_4$). The invention also relates to a treatment facility (1) for the physical and thermochemical treatment of the biomass (5).

20 Fig. 1