CLAIMS

1. A method for conducting a hydrothermal carbonisation reaction comprising:

(a) supplying a biomass to a reaction tank;
(b) creating reaction conditions, with regard respect to pressure and temperature, required for allowing a hydrothermal carbonisation reaction to take place by introduction of steam and maintaining the reaction conditions for a reaction period;
(c) forming a slurry during the reaction period from the steam and the biomass that are introduced;
(d) monitoring the slurry with regard to progression of its pH value of the slurry;
(e) terminating the hydrothermal carbonization reaction as soon as a determination is made that a maximum of the pH value has been reached.

2. The method according to claim 1, wherein the progression of the slurry is determined continuously or at discrete time intervals, using at least one measuring probe assigned to the reaction tank, and is noted in a database, wherein a process controller compares a current pH value with preceding measurement values from an identical measurement series within the reaction period and triggers a termination signal when a decrease in pH value that follows an increase phase occurs.

3.The method according to claim 2, wherein the at least one measurement probe is disposed close to a bottom of the reaction tank.

4. The method according to claim 1, wherein the progression of the slurry is determined continuously or at discrete time intervals using at least one measurement probe assigned to a bypass of the reaction tank, and the pH values are noted in a database, wherein a process controller compares a current pH value with preceding measurement values from an identical measurement series within the reaction period, and triggers a termination signal when a decrease in pH value that follows an increase phase occurs.

5. Method according to claim 1, wherein the slurry is mixed in the reaction tank during the reaction period.

6. The method according to claim 1, wherein measurement begins when the reaction conditions of hydrothermal carbonization, with regard to pressure and temperature, have been reached and biomass and steam have already been introduced into the reaction container.

7. The method according to claim 1, wherein the hydrothermal carbonization reaction is terminated by bringing the slurry out of the reaction tank into a cooling tank via pumping or pressure equalization.