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- (71) 申请人: 上海康恒环境股份有限公司(SHANGHAI SUS ENVIRONMENT CO., LTD.) [CN/CN]; 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。
- (72) 发明人: 龙吉生(LONG, Jisheng); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 乔旭(QIAO, Xu); 中国上海市青浦区崧秋路9号, Shanghai

201703 (CN)。 李建平(LI, Jianping); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 黄立成(HUANG, Licheng); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 钱达蔚(QIAN, Dawei); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 严浩文(YAN, Haowen); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 郝章峰(HAO, Zhangfeng); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 张坡(ZHANG, Po); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 王鹏(WANG, Peng); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。 杨灿(YANG, Can); 中国上海市青浦区崧秋路9号, Shanghai 201703 (CN)。

(74) 代理人: 北京集佳知识产权代理有限公司(UNITALEN ATTORNEYS AT LAW CO., LTD.);

(54) Title: FLUE GAS WASTE HEAT COUPLED CONDENSATION WATER-RETURN HEATING SYSTEM

(54) 发明名称: 一种烟气余热耦合凝结回水加热系统

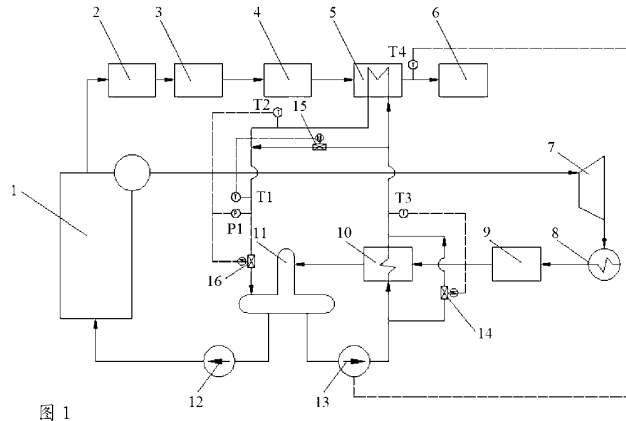


图 1

(57) Abstract: Provided in the present invention is a flue gas waste heat coupled condensation water-return heating system. The heating system can be divided into a garbage incineration flue gas emission system, a condensed water heating system and a closed circulating water system according to the circulation of different media. A boiler, a dust collector, a flue gas - steam heat exchanger, an SCR denitrification apparatus, a low-temperature economizer and an induced draft fan are sequentially connected by means of a flue. A steam turbine, a condenser, a low-pressure heater, a water-water heat exchanger, a deaerator and a boiler water-supply pump are sequentially connected by means of a condensed water channel. The deaerator, a circulating water pump, the water-water heat exchanger and the low-temperature economizer are sequentially connected by means of a circulating water pipe. A path of circulating water is led from low-pressure water supply of the deaerator to the water-water heat exchanger so as to heat condensed water from an outlet of the low-temperature heater; and cooled circulating water is fed to the low-temperature economizer, and returns to the deaerator again

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中国北京市朝阳区建国门外大街 22 号赛特广场七层, Beijing 100004 (CN)。

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after being subjected to heat exchange with flue gas, thereby forming an independent closed circulating water system. By utilizing the characteristic of the constant water temperature of the outlet of the deaerator, the influence of parameter fluctuation of the condensed water can be effectively overcome, thereby ensuring that the low-temperature economizer has no low-temperature corrosion.

(57) 摘要: 本发明提供了一种烟气余热耦合凝结回水加热系统, 根据不同介质的流通可分为垃圾焚烧烟气排放系统、凝结水加热系统和闭式循环水系统。锅炉、除尘器、烟气-蒸汽换热器、SCR脱硝设备、低温省煤器和引风机通过烟道依次连接。汽轮机、凝汽器、低压加热器、水水换热器、除氧器和锅炉给水通过凝结水通道依次连接。除氧器、循环水泵、水水换热器和低温省煤器通过循环水管依次连接。从除氧器低压给水引一路循环水至水水换热器, 加热来自低温加热器出口的凝结水, 冷却后的循环水送至低温省煤器, 与烟气换热后再次回到除氧器, 形成独立的闭式循环水系统。利用除氧器出口水温恒定的特点, 可有效克服凝结水参数波动的影响, 确保低温省煤器不发生低温腐蚀。