

What is the integrated technology of desulfurization and denitrification?

The integrated technology of desulfurization and denitrification is now widely studied in China. (20) For example, an iron-based oxide desulfurization and denitrification catalyst was prepared by an equal-volume impregnation method, which can effectively remove SO 2 and NO x in the tail gas of the petroleum industry.

Does electrochemistry affect simultaneous desulfurization and denitrification by electrodialysis?

In order to study the electrochemical effect on simultaneous desulfurization and denitrification by electrodialysis, simultaneous purification experiments on SO 2, NO 2 and NO were carried out under the conditions of electrification and non-electrification respectively.

Does Fe 2+ concentration affect simultaneous desulfurization and denitrification?

Fe 2+was often used to purify SO 2 or NO in many researches, but the relationship between the absorption reaction of Fe 2+and SO 2 or NO is not clear. In this part, the influence of Fe 2+concentration on simultaneous desulfurization and denitrification was studied and discussed.

What is the difference between desulfurization and denitrification efficiency?

The desulfurization and denitrification efficiency was higher, the reaction temperature was higher, and the optimal reaction conditions were reached at 350 °C. However, when O 2 was added, the desulfurization efficiency was rapidly reduced to 40%, and the denitrification efficiency was reduced to 20%.

How does Na 2 s 2 O 8 concentration affect desulfurization and denitrification efficiencies?

It can be seen from Table 1 that,as the Na 2 S 2 O 8 concentration increases from 0 to 10 wt% in increments of 2 wt%,the desulfurization and denitrification efficiencies are increased from 97.5% to 99.3% and from 2.3% to 25.2% respectively.

What is the process of simultaneous desulfurization & denitrification by electrodialysis/Fe(II)?

In the process of simultaneous desulfurization and denitrification by electrodialysis/Fe (II) system, Fe (II) circulated in the system through reaction (3-22) and reaction (3-25), maintaining the absorption capacity of the system for NO.

Wind power is more suitable for the development of Kazakhstan than photovoltaic power generation. The integrated technology of catalytic oxidation desulfurization and denitrification not only has high desulfurization efficiency, but also can reach more than 80% at low temperature, and has good adaptability to the change of sulfur content[4 ...

In this paper, aiming at the flue gas characteristics of glass melting furnace, the flue gas simultaneous desulfurization and denitrification technology are analyzed and discussed. The ...



of the system show that the desulfurization and denitrification integrated purification technology for activated coke has excellent economic benefits. KEYWORDS activated coke, denitrification, desulfurization, regeneration 1 | INTRODUCTION China's total coke output accounts for more than 60% of the world's.

The La (6%)-Ce (8%)-V (7%)-Cu (8%)-ZSM-5 catalyst prepared by successive impregnation methods had the optimum simultaneous desulfurization and denitrification efficiency at a roasting temperature of 600 °C. The ...

simultaneous desulfurization and denitrification of modified activated carbon fiber on the basis of desulfurization of modified activated carbon fiber. 2. Research Experiment . 2.1. Instruments and raw materials . Smoke detector, glass rotameter, BGG DC high voltage generator, GZ-100/20 silicon rectifier high voltage control cabinet.

Carbon nanotubes are a promising adsorbent for desulfurization and denitrification. In this paper, Cu- and Cr-doped TiO2 supported by multi-walled carbon nanotubes ...

Coal, as one of the most important sources of energy around the world due to the intensity of its exploiting and utilization, causes increasingly serious ecological problems, especially air pollution.

The integrated technology of desulfurization and denitrification is now widely studied in China. For example, an iron-based oxide desulfurization and denitrification catalyst was pre Catalytic ozone was combined with NH 3 /(NH ...

Currently, the research on simultaneous desulfurization coupled with denitrification reaction (SDD) using autotrophic microorganisms under anoxic conditions has been more and more widespread [1], [2], [3], [4]. The essence of SDD is to use HS - /S 2- as electron donor to remove NO x - from wastewater synchronously by biochemical action and to supply the ...

The mole ratio of S/N is a key factor for simultaneous denitrification and desulfurization [15]. Cai et al. [16] found that sulfide and nitrate removal efficiencies at S/N ratio of 5:2 were higher than those of 5:5 and 5:8. In particular, when the S/N ratio was 5:2, the generation of elemental sulfur and dinitrogen increased, and the process of autotrophic ...

Interphase mass transfer is acknowledged as the rate-limiting step of simultaneous desulfurization and denitrification by wet oxidation. For this issue, this study established a venturi reactor to facilitate interphase mass transfer between flue gas and absorbent (NaClO 2 solution), and to improve the efficiency of simultaneous desulfurization and denitrification.

A process of simultaneous desulfurization and denitrification of flue gas was conducted in this study. The flue



gas containing 200 mg·m -3 NO, 1000-4000 mg·m -3 SO 2, 3%-9% O 2, and 10%-20% CO 2 was first oxidized by O 3 and then absorbed by ammonia in a bubbling reactor. Increasing the ammonia concentration or the SO 2 content in flue gas can ...

A cost-efficient photocatalytic oxidative denitrogenation and desulfurization system for fuels under visible light was developed on the basis of Na doped g-C 3 N 4 nanosheets catalyst. The process adopted molecular O 2 as oxidant to substitute for the expensive H 2 O 2, and it adapted to the removal of small molecules of pyridine and thiophene. Na doped g-C 3 N ...

As mentioned above, in order to obtain the best denitrification and desulfurization efficiency, although the desulfurization efficiency is affected to some extent, ... Simultaneous removal of NO x and SO x from flue gas of a glass melting furnace using a combined ozone injection and semi-dry chemical process. Ozone-Sci. Eng., 38 (3) (2016), pp ...

Xinxiang Xima fan undertakes the fan of the glass kiln desulfurization project. The fan has excellent performance, stable operation, high efficiency and energy saving. Welcome to visit the factory. HOME. ABOUT US. About Us. Sima Blower. Developing. Honor. R & D Capabilities. Smart Equipment. Factory Tour. PRODUCTS. Centrifugal Fan. Low ...

In this paper, a novel complex oxidant, NaClO 2 /Na 2 S 2 O 8, was prepared for simultaneous removal of SO 2 and NO through a pre-oxidation method. The cooperative effect ...

An integrated method of simultaneous desulfurization and denitrification from flue gas by catalytic ozonation combined with NH 3 /(NH 4) 2 S 2 O 8 absorption was developed for the first time. It consisted of two parts: (1) the catalytic ozonation of NO over FeO x /SAPO-34 to study the effects of the various influencing factors, and (2) the absorption-oxidation of NO x ...

An integrated and effective method to realize simultaneous desulfurization and denitrification by the Spray Dryer Absorption (SDA) method combined with the NaClO 2 was carried out in this paper. The optimum conditions on desulfurization were verified, as well as ...

This paper adopts O 3 and NO micro-nano bubble systemthe to study the Simultaneous desulfurization and denitrification method. In this paper, the effects of O 3 inflow, ...

According to the previous studies, NaClO 2 was demonstrated to be comparatively effective among all kinds of oxidizing agents in desulfurization and denitrification, but it is still difficult to be applied extensively in industry because of the high cost. In order to solve such problems, a compound absorbent containing NaClO 2 and NaClO was used to investigate ...

Many researchers have made a lot of experimental studies on the chemical characteristics of bubbling reactor



in the past few decades. Zhao et al. (2009) used the NaClO 2 solution as working fluid to conduct the simultaneous desulfurization and denitrification experiments and studied the reaction kinetics as well as the important parameters affecting the ...

TI - Analysis Simultaneous Desulfurization and Denitration Technology for Glass Furnace Flue Gas BT - Proceedings of the 2017 6th International Conference on Energy and Environmental ...

A novel Mn/Ce-Ca-based desulfurizer was prepared by dipping-roasting method to improve the performance of single calcium hydroxide (Ca(OH) 2) for sintering flue gas desulfurization (FGD) at 100-350? this study, metal dopants iron oxide (Fe 2 O 3) and magnesium oxide (MgO) are added to improve the microstructure of single Ca(OH) 2 and ...

Designing an efficient photocatalyst for desulfurization with simultaneous denitrogenation is essential for producing clean diesel fuel. In this paper, we prepared a photocatalyst with high desulfurization and denitrogenation activities by Er, W, and N co-doping modification of TiO 2. Some influences of metal content, reaction time and temperature, basic ...

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