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(54) Title (EN): AMORPHOUS ACTIVATED CARBON PARTICLES, SOUND ABSORPTION PARTICLES, AND SOUND-EMITTING DEVICE

(54) Title (FR): PARTICULES DE CHARBON ACTIF AMORPHE, PARTICULES D'ABSORPTION SONORE ET DISPOSITIF D'ÉMISSION SONORE

(54) Title (ZH): 无定型活性炭粒子和吸音颗粒以及发声装置

(57) Abstract:

(EN): Disclosed by the present invention are amorphous activated carbon particles, sound absorption particles, and a sound-emitting device. The amorphous activated carbon particles comprise carbon, hydrogen and oxygen, wherein the mass ratio of carbon is greater than or equal to 60 wt%; the amorphous activated carbon particles contain a turbostratic structure formed by the irregular stacking of molecular fragments of a two-dimensional graphite layer structure and/or three-dimensional graphite microcrystals, and a loose pore channel structure is present in the amorphous activated carbon particles; the pore channel structure comprises nano micropores and mesopores, the aperture of the micropores being with a range of 0.5-2 nm, the aperture of the mesopores being within a range of 2-20 nm, and the ratio of the cumulative pore volume of the micropores to the cumulative pore volume of the mesopores being within a range of 0.05-20. One technical effect of the present invention lies in the activated carbon sound absorption particles being capable of being used to reduce the resonant frequency of a sound-emitting device.

(FR): La présente invention concerne des particules de charbon actif amorphe, des particules d'absorption sonore et un dispositif d'émission sonore. Les particules de charbon actif amorphe comprennent du carbone, de l'hydrogène et de l'oxygène, le rapport massique du carbone étant supérieur ou égal à 60 % en poids; les particules de charbon actif amorphe contiennent une structure turbostratique formée par l'empilement irrégulier de fragments moléculaires d'une structure en couches de graphite bidimensionnel et/ou de microcristaux de graphite tridimensionnel, tandis qu'une structure en canaux de pores libres est présente dans les particules de carbone activé amorphe; la structure en canaux de pores comprend des nano-micropores et des mésopores, l'ouverture des micropores étant dans une plage de 0,5 à 2 nm, l'ouverture des mésopores étant dans une plage de 2 à 20 nm et le rapport du volume cumulé de pores des micropores au volume cumulé de pores des mésopores étant dans une plage de 0,05 à 20. Un effet technique de la présente invention réside dans la capacité des particules d'absorption sonore à base de charbon actif à servir à réduire la fréquence de résonance d'un dispositif d'émission sonore.

(ZH): 本发明公开了一种无定型活性炭粒子和吸音颗粒以及发声装置。所述无定型活性炭粒子包括碳、氢、氧三种元素,其中碳元素质量占比大于或等于60wt%,所述无定型活性炭粒子含有由二维石墨层结构和/或三维石墨微晶的分子碎片无规则的堆积形成的乱层结构,无定型活性炭粒子中具有疏松的孔道结构,所述孔道结构包括纳米级的微孔和介孔,所述微孔的孔径范围为0.5-2纳米,所述介孔的孔径范围为2-20纳米,所述微孔的累积孔容积与介孔的累积孔容积的比值范围为0.05-20。本发明的一个技术效果在于该活性炭吸音颗粒可以用于降低发声装置的谐振频率。

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