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KURITA et al.(10) **Pub. No.: US 2023/0231111 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **COMPOSITE CARBON PARTICLES AND
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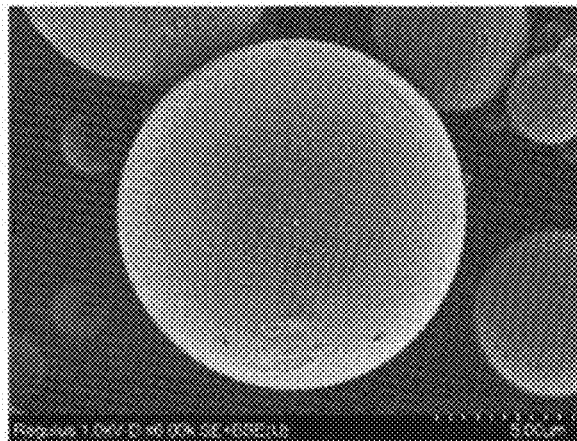
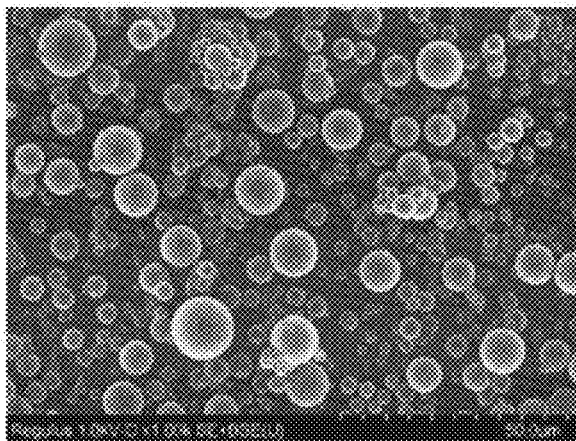
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(57)

ABSTRACT

Composite carbon particles including a porous carbon material and a silicon component, the composite carbon particle having an average aspect ratio of 1.25 or less, and a ratio (I_{Si}/I_G) of a peak intensity (I_{Si}) in the vicinity of 470 cm^{-1} to a peak intensity (I_G) in the vicinity of 1580 cm^{-1} as measured by Raman spectroscopy of 0.30 or less, wherein the porous carbon material satisfies $V_1/V_0 > 0.80$ and $V_2/V_0 < 0.10$, when a total pore volume at a maximum value of a relative pressure P/P_0 is defined as V_0 and P_0 is a saturated vapor pressure, a cumulative pore volume at a relative pressure $P/P_0 = 0.1$ is defined as V_1 , a cumulative pore volume at a relative pressure $P/P_0 = 10^{-7}$ is defined as V_2 in a nitrogen adsorption test, and has a BET specific surface area of $800\text{ m}^2/\text{g}$ or more.



Enlarged View