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(54) Title: MULTIFUNCTIONAL COMPOSITE SI AND C-BASED PARTICLES

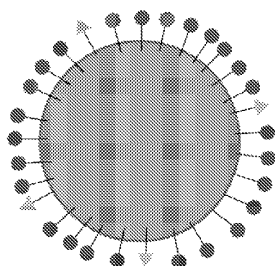


Figure 1A

(57) Abstract: The present disclosure provides methods for forming polymer brushes on Si and C-based - particles, thus, enabling easy large-scale production of polymer brush decorated particles. In particular, the improved methods allow for easy control of the graft-density due to the formation of a multifunctional layer on the particles. The disclosure also provides a Si and C-based - particle having a multifunctional base layer as well as a Si and C-based particle having a multifunctional base layer upon which polymer brushes are formed.

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