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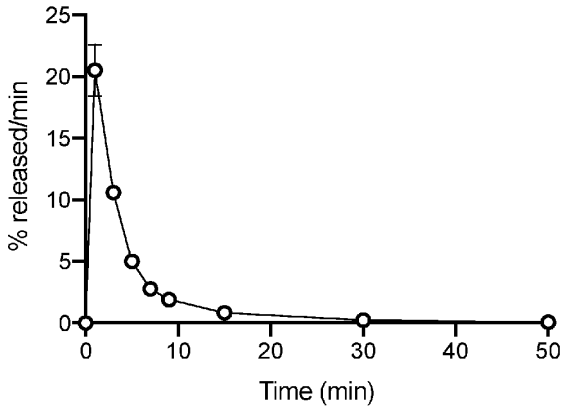


Figure 1

(57) Abstract: There is provided a process for the preparation of composition in the form of a plurality of particles having a weight-, number-, and/or volume-based mean diameter that is between amount 10 nm and about 700 pm, which particles comprise: (a) solid cores, preferably comprising a biologically active agent; and (b) two or more sequentially applied, discrete layers, each of which comprises at least one separately applied coating material, and which two or more layers together surround, enclose and/or encapsulate said cores, which process comprises the sequential steps of: (1) applying an initial layer of at least one coating material to said solid cores by way of a gas phase deposition technique; (2) subjecting the coated particles to agitation to deagglomerate particle aggregates formed during step (1) by way of a sieving step; (3) applying a further layer of at least one coating material to the deagglomerated particles; and (4) optionally repeating steps (2) and (3) one or more times to increase the total thickness of the at least one coating material that enclose(s) said solid core, wherein at least one of the sieving steps comprises a vibrational sieving technique, in which the vibrational sieving technique comprises supplying electrical power to a vibration motor coupled to a sieve. The gas phase deposition technique is preferably atomic layer deposition. When the cores comprise biologically active agent, the compositions may provide for the delayed or sustained release of said active agent without a burst effect.

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