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ning of each regular issue of the PCT Gazette.*

(54) Title: A SURFACTANT ASSISTED NANOMATERIAL GENERATION PROCESS

(57) Abstract: A process for the preparation of nanoscale particulate material is described comprising: (i) combining one or more functional material to be precipitated as nanoscale particles and one or more surface active material in a compressed CO₂ phase with a density of at least 0.1 g/cc, where the functional material is substantially insoluble in the compressed CO₂, in the absence of the surfactant, the surfactant comprises a compressed CO₂-philic portion and a functional material-philic portion, and the compressed CO₂ phase, functional material and surfactant interact to form an aggregated system having a continuous compressed CO₂ phase and a plurality of aggregates comprising surfactant and functional material molecules of average diameter less than 10 nanometers dispersed therein; and (ii) rapidly depressurizing the compressed CO₂ phase thereby precipitating the dispersed functional and surfactant materials in the form of composite particles of average diameter from 0.5 to less than 10 nanometers.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01J2/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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G document member of the same patent family

Date of the actual completion of the international search

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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