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(54) **METHOD FOR PRODUCING NANO-PARTICLES OF METAL OXIDE**

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(57) **ABSTRACT**

Method for producing nano-particles includes vaporizing a precursor material to produce a vapor, directing the vapor into an isolation chamber, combining a quench fluid in a gaseous state with a quench fluid in a liquid state to form a quench fluid stream, contacting the vapor contained in the isolation chamber with the quench fluid stream thereby cooling the vapor to produce the nano-particles in a carrier stream, and removing the nano-particles from the isolation chamber.

3 Claims, 5 Drawing Sheets