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(54) **APPARATUS FOR PRODUCING MOLYBDENUM DISULFIDE POWDERS**

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(57) **ABSTRACT**

Apparatus for reducing a particle size of a precursor powder material by fluid energy impact according to one embodiment of the invention may include a housing defining an interior milling cavity therein having a peripheral wall. A powder feed inlet operatively associated with the housing introduces the precursor powder material into the interior milling cavity. A feed gas inlet operatively associated with the powder feed inlet introduces a feed gas into the interior milling cavity. A product discharge outlet operatively associated with the housing removes a milled powder product from the interior milling cavity. An oil injection nozzle assembly operatively associated with the product discharge outlet injects oil into a particle-laden product stream from the product discharge outlet.

8 Claims, 4 Drawing Sheets