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- (54) **MOLYBDENUM METAL POWDER AND PRODUCTION THEREOF**
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(52) **U.S. Cl.** ..... **75/255; 75/369**  
(58) **Field of Classification Search** ..... **75/255, 75/369, 623, 363**  
See application file for complete search history.

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(57) **ABSTRACT**

Molybdenum metal powder, and method for production thereof. Molybdenum metal powder has surface-area-to-mass-ratios in a range of between about 1.0 meters<sup>2</sup>/gram (m<sup>2</sup>/g) and about 3.0 m<sup>2</sup>/g, as determined by BET analysis, in combination with a particle size wherein at least 30% of the particles have a particle size larger than a size +100 standard Tyler mesh sieve. In addition, molybdenum metal powder **10** may be further distinguished by flowability in a range of between about 29 seconds/50 grams (s/50 g) and about 64 s/50 g, as determined by a Hall Flowmeter. A method of producing molybdenum powder may comprise providing a supply of ammonium molybdate, heating the ammonium molybdate at an initial temperature in the presence of a reducing gas to produce an intermediate product, and heating the intermediate product at a final temperature in the presence of the reducing gas, producing molybdenum metal powder.

**20 Claims, 11 Drawing Sheets**