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**Khan et al.**

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(54) **METHOD FOR PRODUCING MOLYBDENUM METAL**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(51) **Int. Cl.**<sup>7</sup> ..... **B22F 9/22**

(57) **ABSTRACT**

(52) **U.S. Cl.** ..... **75/369; 75/363; 75/623**

(58) **Field of Search** ..... **75/623, 363, 369**

Novel forms of molybdenum metal, and apparatus and methods for production thereof. Novel forms of molybdenum metal are preferably characterized by a surface area of substantially 2.5 m<sup>2</sup>/g. Novel forms of molybdenum metal are also preferably characterized by a relatively uniform size. Preferred embodiments of the invention may comprise heating a precursor material to a first temperature in the presence of a reducing gas, and increasing the first temperature at least once to reduce the precursor material and form the molybdenum metal product.

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**12 Claims, 5 Drawing Sheets**