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(54) **APPARATUS FOR PRODUCTION OF MOLYBDENUM CARBIDE**
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See application file for complete search history.

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(57) **ABSTRACT**

Apparatus for producing molybdenum carbide from a precursor material includes a supply of process gas and a furnace defining at least a first heating zone and a second heating zone. The furnace heats the first heating zone to a first temperature and the second heating zone to a second temperature. The second temperature is at least about 100° C. hotter than the first temperature. A transfer system operatively associated with the furnace and the supply of process gas moves the precursor material through the first and second heating zones and in the presence of the process gas to form molybdenum carbide (MoC and Mo₂C).

21 Claims, 3 Drawing Sheets

