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FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and Address	Area Code and Telephone Number	202-586-2810
Name Betty A. Winchester		
Address (line 1) U. S. Department of Energy		
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CONFIRMATORY LICENSE (Nonprofit Organizations or Small Business Firms)

Title: Grinding Wheel System

Inventor(s): Stephen Malkin, Robert Gao, Changsheng Guo, Biju Varghese, Sumukh Pathere Filing Date (U.S.): December 16, 1999 Serial No.: 09/465,349 Contractor: University of Massachusetts Amherst DOE Case No.: S-90,727 DOE Contract No.: DE-FG05-96OR22524 Patent Rights Clause No .: Foreign Applications filed in or intended to be filed at Contractor's expense in (countries):

The Contractor, having the right to retain title to Subject Inventions as a result of Public Law 96-517, has reported the above-identified invention as a Subject Invention to DOE with its election to retain title thereto.

Accordingly, this document is confirmatory of the nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States, required by the Public Law and the above-identified contract, in this Subject Invention, patent application and any resulting patent, as well as any continuation, divisional, reissue or supplemental thereof, throughout the world and of all other rights acquired by the Government by the above-identified patent rights clause, a copy of which is attached hereto and incorporated by reference herein. The undersigned certifies the attached copy to be a true copy of said clause. It is understood and agreed that this license does not preclude the Government from asserting rights under the provisions of said contract or of any other agreement between the Government and the Contractor, or from asserting any other rights of the Government with respect to the aboveidentified Subject Invention.

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

University of Massachusetts Amherst (Contractor) $\mathbf{B}\mathbf{y}_{-}$ (Contractor's Official and Title) E. Bradley Moynahan, Assistant Vice Chancellor and Director 512 Goodell Building, Amherst, MA 010034 (Business Address) SEAL PATENT **RECORDED: 10/21/2003**

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