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[54] **PURIFIED THERMOCOCCUS BAROSSII DNA POLYMERASE**

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[75] Inventors: **Robert A. Luhm**, Mequon, Wis.; **Olga B. d'Hennezel**; **Guy D. Duffaud**, both of Raleigh, N.C.; **James F. Jolly**, Glendale, Wis.; **Robert M. Kelly**, Cary, N.C.; **Eve Y. Ting**, Brookfield, Wis.

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Primary Examiner—Keith D. Hendricks
Attorney, Agent, or Firm—Quarles & Brady

[73] Assignees: **Pharmacia Biotech Inc.**, Milwaukee, Wis.; **North Carolina State University**, Raleigh, N.C.

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[58] Field of Search 435/194, 91.2; 536/23.2

[57] **ABSTRACT**

A preparation of a purified DNA polymerase substantially identical to native DNA polymerase isolated from *Thermococcus barossii* is disclosed. In a preferable form of the present invention, the DNA polymerase is approximately 68 kDa in size, retains at least 90% activity after 8 hours of incubation at 95° C. and retains between 60% and 80% proof-reading ability when catalyzing a polymerization reaction with a primer with a 3 base pair mismatch.

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24 Claims, 6 Drawing Sheets