

[54] BONE SUBSTITUTE

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[73] Assignee: The United States of America as represented by the United States Atomic Energy Commission

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[58] Field of Search117/8.5, 121, 161 UB, 93.31; 128/92 R, 92 C, 92 CA; 3/1

[56] References Cited

UNITED STATES PATENTS

| | | | |
|-----------|---------|--------------------|-----------|
| 3,314,420 | 4/1967 | Smith et al..... | 128/92 R |
| 2,463,551 | 3/1949 | Myerson et al..... | 128/92 R |
| 3,549,509 | 12/1970 | Casalina..... | 117/93.31 |

FOREIGN PATENTS OR APPLICATIONS

1,083,769 9/1967 Great Britain.....128/92 R

OTHER PUBLICATIONS

Illustrated leaflet, Zimmer Orthopaedic Ltd., p. XV (1952)

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[57] ABSTRACT

A bone substitute and a method for preparing the bone substitute in which porous aluminum oxide is initially impregnated with pure methyl methacrylate monomer. The monomer is polymerized by gamma irradiation and polymer is then removed by solution from selected areas where muscle and bone attachment is to be made in situ. Further irradiation sterilizes the bone substitute.

5 Claims, No Drawings