

[54] METHOD FOR FORMING IMPREGNATED SYNTHETIC VASCULAR GRAFTS

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[56] References Cited

U.S. PATENT DOCUMENTS

3,272,204 9/1966 Artandi et al. 3/1
3,425,418 2/1969 Chvapil et al. 623/1
3,479,670 11/1969 Medell .
3,928,653 12/1975 Dowell, Jr. et al. 426/657
4,416,028 11/1983 Eriksson et al. 623/1

FOREIGN PATENT DOCUMENTS

0000949 3/1979 European Pat. Off. .
2601289 7/1977 Fed. Rep. of Germany .
0904693 2/1982 U.S.S.R. .

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[57] ABSTRACT

A collagen impregnated synthetic vascular graft including a synthetic vascular graft substrate and cross-linked collagen fibril is formed by depositing an aqueous slurry of collagen fibrils in the lumen of the graft and massaging to insure intimate mixing of the fibrils into the porous structure of the substrate. After massaging, the collagen is dried and cross-linked. Repeated applications and massaging and drying further reduce porosity of the graft.

15 Claims, 2 Drawing Sheets

