

- [54] **POROUS PRODUCTS AND PROCESS THEREFOR**
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- [*] Notice: The portion of the term of this patent subsequent to Apr. 27, 1993, has been disclaimed.
- [21] Appl. No.: **808,545**
- [22] Filed: **Jun. 21, 1977**

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Related U.S. Application Data

- [60] Continuation of Ser. No. 637,298, Dec. 3, 1975, abandoned, which is a division of Ser. No. 376,188, Jul. 3, 1973, Pat. No. 3,953,566, which is a continuation of Ser. No. 39,753, May 21, 1970, abandoned.
- [51] Int. Cl.² **H01B 7/18; H01B 9/02**
- [52] U.S. Cl. **174/102 R; 55/486; 55/528; 252/66; 308/DIG. 8; 428/36; 428/304; 428/306; 428/308; 428/323; 428/324; 428/325; 428/327; 428/331; 428/364**
- [58] **Field of Search** 428/36, 364, 221, 421, 428/422, 317, 324, 363, 331, 325, 443, 327, 328, 310, 315; 174/102 R, 110 FC; 260/2.5 R, 2.5 M; 55/486, 528; 252/66; 308/DIG. 8

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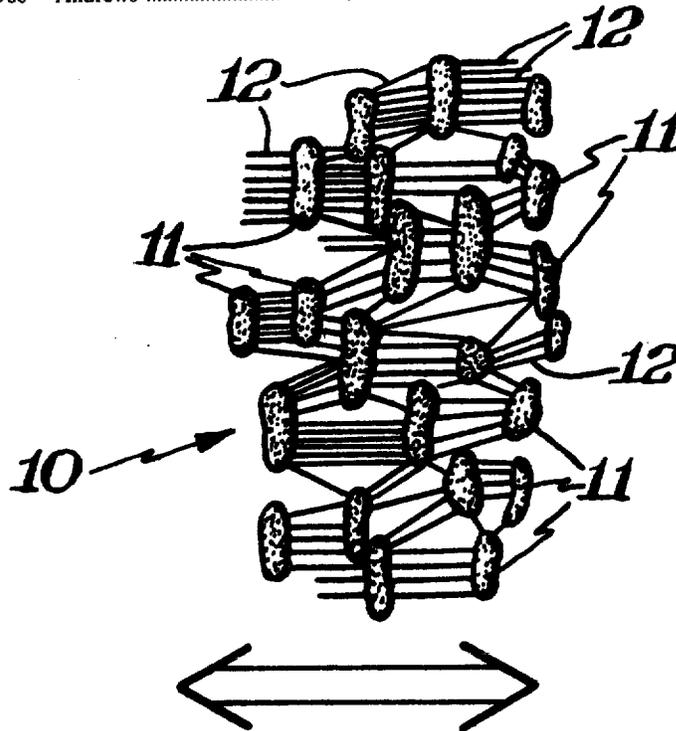
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[57] **ABSTRACT**

This invention provides a tetrafluoroethylene polymer in a porous form which has an amorphous content exceeding about 5% and which has a micro-structure characterized by nodes interconnected by fibrils. The material has high porosity and high strength. It can be used to produce all kinds of shaped articles such as films, tubes, rods, and continuous filaments. Laminations can be employed and impregnation and bonding can readily be used to produce a large variety of articles. Compressed articles of very high strength can also be produced from these porous forms.

77 Claims, 2 Drawing Figures



Direction of Uniaxial Expansion