

[54] METHOD FOR MANUFACTURING HYDROGEL TUBES	3,733,386	5/1973	Shimoda et al.	264/182
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[75] Inventors: Otto Wichterle; Artur Stoy, both of Prague, Czechoslovakia	3,812,071	5/1974	Stoy	260/29.6 TA
	3,862,452	1/1975	Wichterle et al.	128/334 R
[73] Assignee: Ceskoslovenska akademie ved, Prague, Czechoslovakia	3,864,323	2/1975	Stoy	260/88.7 R
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[21] Appl. No.: 737,051	3,897,382	7/1975	Stoy et al.	260/29.6 AN
	4,021,382	5/1977	Stoy et al.	128/334 R
[22] Filed: Nov. 1, 1976	4,061,821	12/1977	Hayano et al.	264/182

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 432,515, Jan. 11, 1974, abandoned.

Foreign Application Priority Data

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[52] U.S. Cl. **264/41; 128/260; 260/29.6 AN; 264/49; 264/173; 264/177 F; 264/182; 424/15; 428/398**

[58] Field of Search 264/182, 41, 173, 177 F, 264/49; 266/29.6 AN; 424/15; 128/260; 428/398

[56] **References Cited**

U.S. PATENT DOCUMENTS

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[57] **ABSTRACT**

There is disclosed a method of producing hydrogel tubes comprising partially hydrolyzing an acrylonitrile-containing polymer in an inorganic acidic solvent solution at temperature of about -10° to 50° C., extruding said hydrolyzed polymer solution through a circular nozzle into an aqueous coagulating bath, the same or similar coagulating bath simultaneously being fed through a central tube or pin of the nozzle.

Preferably, the surface of the tube is made very slippery in wet condition, by treating it with chemical agents causing either a further hydrolysis or other reaction leading to carboxylic, sulfonic or sulfuric groups, or an esterification with polyols such as glycerol, glycols or polyvinyl alcohol, preferably with simultaneous sulfonation or sulfuration.

10 Claims, No Drawings