



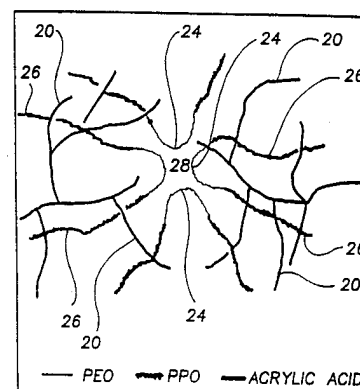
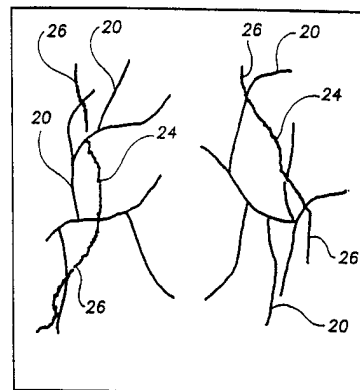
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : A61K 47/32, 47/34</p>	<p>A3</p>	<p>(11) International Publication Number: WO 98/06438 (43) International Publication Date: 19 February 1998 (19.02.98)</p>																	
<p>(21) International Application Number: PCT/US97/13988 (22) International Filing Date: 12 August 1997 (12.08.97)</p> <p>(30) Priority Data:</p> <table border="0"> <tr><td>60/023,996</td><td>12 August 1996 (12.08.96)</td><td>US</td></tr> <tr><td>60/025,974</td><td>16 September 1996 (16.09.96)</td><td>US</td></tr> <tr><td>60/028,183</td><td>15 October 1996 (15.10.96)</td><td>US</td></tr> <tr><td>60/030,798</td><td>14 November 1996 (14.11.96)</td><td>US</td></tr> <tr><td>60/034,454</td><td>2 January 1997 (02.01.97)</td><td>US</td></tr> <tr><td>60/034,174</td><td>2 January 1997 (02.01.97)</td><td>US</td></tr> </table> <p>(71) Applicant: GEL SCIENCES, INC. [US/US]; 213 Burlington Road, Bedford, MA 01730 (US).</p> <p>(72) Inventors: RON, Eyal, S.; 7 Coach Road, Lexington, MA 02173 (US). BROMBERG, Lev; 24 Mace Place #3, Lynn, MA 01902 (US). ORKISZ, Michal; 12 Hatherly Road, Brighton, MA 02135 (US). KEARNEY, Marie; 342 Faneuil Street #1, Brighton, MA 02135 (US). LUCZAK, Scott; 3 Remsen Avenue, Medfield, MA 02052 (US). TIMM, Mary, J.; Unit A1, 209 Great Road, Acton, MA 01720 (US). WROBEL, Stanley, J.; 184 Bachelor Street, West Newbury, MA 01985 (US).</p>	60/023,996	12 August 1996 (12.08.96)	US	60/025,974	16 September 1996 (16.09.96)	US	60/028,183	15 October 1996 (15.10.96)	US	60/030,798	14 November 1996 (14.11.96)	US	60/034,454	2 January 1997 (02.01.97)	US	60/034,174	2 January 1997 (02.01.97)	US	<p>(74) Agent: SCOZZAFAVA, Mary, Rose; Choate, Hall & Stewart, Exchange Place, 53 State Street, Boston, MA 02109 (US).</p> <p>(81) Designated States: CA, JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: 25 June 1998 (25.06.98)</p>
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(54) Title: COMPOSITION FOR PHARMACEUTICAL APPLICATIONS

(57) Abstract

A pharmaceutical composition includes a pharmaceutically acceptable carrier, comprising a reverse thermally viscosifying polymer network. The polymer network includes at least one responsive polymer component, said responsive component capable of aggregation in solution in response to an environmental stimulus and at least one structural component, said structural component exhibiting self-repulsive interactions over use conditions. The responsive component is randomly bonded to said structural component and the polymer network characterized in that it viscosifies in response to said environmental stimulus. The composition further includes a pharmaceutically active agent which imparts a pharmaceutical effect, said carrier and said agent disposed within an aqueous-based medium. The composition is suitable for administration of the pharmaceutical agent across dermal, otic, rectal, vaginal, ophthalmic, esophageal and nasal mucosal membranes.



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