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(54) **Acrylic fibers with high physical properties.**

(57) Acrylic fibers with high physical properties particularly suitable as material for cement reinforcement are provided by spinning a spinning solution of an acrylonitrile polymer at a particular linear velocity ratio of extrusion, thereby forming gel fibers; regulating the internal water content of the gel fibers, subjecting the fibers to dry-heat treatment under tension or dry-heat stretching under a particular temperature condition; and cooling the fibers under tension.

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| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                     |                                                                                                                                  |                                                                                                                                                                                                                                                                              |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Category                                                                                                                                                                                                                | Citation of document with indication, where appropriate, of relevant passages                                                    | Relevant to claim                                                                                                                                                                                                                                                            | CLASSIFICATION OF THE APPLICATION (Int. Cl.4)   |
| D,A                                                                                                                                                                                                                     | GB-A-2 018 188 (AMERICAN CYANAMID)                                                                                               |                                                                                                                                                                                                                                                                              | D 01 F 6/18                                     |
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| D,A                                                                                                                                                                                                                     | PATENT ABSTRACTS OF JAPAN, vol. 9, no. 66 (C-271)[1789], 26th March 1985; & JP-A-59 199 809 (NIPPON EXLAN KOGYO K.K.) 13-11-1984 |                                                                                                                                                                                                                                                                              |                                                 |
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| A                                                                                                                                                                                                                       | EP-A-0 061 117 (HOECHST)                                                                                                         |                                                                                                                                                                                                                                                                              |                                                 |
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| P,X                                                                                                                                                                                                                     | EP-A-0 165 372 (TORAY INDUSTRIES)<br>* Whole document *                                                                          | 1-3                                                                                                                                                                                                                                                                          | TECHNICAL FIELDS SEARCHED (Int. Cl.4)<br>D 01 F |
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| The present search report has been drawn up for all claims                                                                                                                                                              |                                                                                                                                  |                                                                                                                                                                                                                                                                              |                                                 |
| Place of search<br>THE HAGUE                                                                                                                                                                                            |                                                                                                                                  | Date of completion of the search<br>24-06-1987                                                                                                                                                                                                                               | Examiner<br>VAN GOETHEM G.A.J.M.                |
| <b>CATEGORY OF CITED DOCUMENTS</b>                                                                                                                                                                                      |                                                                                                                                  |                                                                                                                                                                                                                                                                              |                                                 |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                  | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                 |

