

Title (en)  
METHOD OF LAUNDERING FABRIC

Title (de)  
VERFAHREN ZUM WASCHEN VON WÄSCHE

Title (fr)  
PROCÉDÉ DE LAVAGE DU LINGE

Publication  
**EP 2694635 B1 20151125 (EN)**

Application  
**EP 12707100 A 20120305**

Priority  
• EP 11160937 A 20110404  
• EP 2012053709 W 20120305  
• EP 12707100 A 20120305

Abstract (en)  
[origin: EP2476743A1] A method of laundering fabric onto which a cationic fabric softening active has been deposited and dried comprising the step of contacting the fabric with an aqueous wash liquor having the following composition: a) 15 to 600 ppm non-soap surfactant, b) at least 50 ppm ethoxylated polyethylene imine, c) at least 25 ppm polyester soil release polymer, the total level of polymer (b+ c) being at least 20 wt% of the level of non soap surfactant (a), d) 0.1 to 100 ppm enzyme selected from protease, amylase, cellulase, e) optionally, lipase enzyme.

IPC 8 full level  
**C11D 3/00** (2006.01); **C11D 3/37** (2006.01); **C11D 3/386** (2006.01)

CPC (source: EP)  
**C11D 3/0036** (2013.01); **C11D 3/3715** (2013.01); **C11D 3/3723** (2013.01); **C11D 3/386** (2013.01); **C11D 3/38645** (2013.01); **C11D 2111/12** (2024.01)

Citation (opposition)  
Opponent : Henkel AG & Co. KGaA  
• WO 2009153184 A1 20091223 - UNILEVER PLC [GB], et al  
• WO 9318124 A1 19930916 - PROCTER & GAMBLE [US]  
• WO 2006072083 A1 20060706 - DIAL CORP [US], et al  
• DE 102008032206 A1 20100114 - HENKEL AG & CO KGAA [DE]  
• STEIGER ET AL.: "A study on the long-term stability and removal of quats on treated fabric", J SURFACTANTS AND DETERGENTS, vol. 5, no. 3, July 2002 (2002-07-01), pages 207 - 210, XP055307218  
Opponent : The Procter & Gamble Company  
• WO 2009153184 A1 20091223 - UNILEVER PLC [GB], et al  
• WO 9815608 A2 19980416 - PROCTER & GAMBLE [US], et al  
• WO 9318124 A1 19930916 - PROCTER & GAMBLE [US]  
• US 4125370 A 19781114 - NICOL CHARLES H  
• US 4132680 A 19790102 - NICOL CHARLES H  
• KUO-YANN LAI: "Liquid Detergents, second edition", 2006, CRC PRESS, ISBN: 9780824758356, article "Chapter 12 - Fabric Softeners", pages: 487 - 554, XP055307205  
• JAKOBI ET AL.: "Detergent & Textile Washing; Principle & Practice;", 1987, ISBN: 0895736861, pages: 14-21, 1 - 166, XP055307209  
• DONN N. RUBINGH ET AL.: "Cationic Surfactants, Physical Chemistry", 1991, ISBN: 0824783573, article "Fabric Softening - Chapter 9", pages: 449 - 467, XP055307212  
• ANTHONY J. O'LENICK, JR.: "Soil Release Polymers, Review", JOURNALS OF SURFACTANTS AND DETERGENTS, vol. 2, no. 4, October 1999 (1999-10-01), pages 553 - 557, XP000893935  
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• GOGOI ET AL.: "Fabric Softeners: An overview", TECHNICAL ARTICLE, MAN-MADE TEXTILES IN INDIA, July 2009 (2009-07-01), pages 241 - 251, XP055307216  
• ROLF PUTCHA: "Cationic Surfactants in Laundry Detergents and Laundry Aftertreatment Aids", JAOCS, vol. 61, no. 2, February 1984 (1984-02-01), pages 367 - 376, XP001390277

Designated contracting state (EPC)  
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**EP 2476743 A1 20120718; EP 2476743 B1 20130424**; AR 085771 A1 20131023; AU 2012238950 A1 20130919; AU 2012238950 B2 20141120; BR 112013025674 B1 20210202; CL 2013002817 A1 20140822; CN 103459577 A 20131218; CN 103459577 B 20150527; EP 2694635 A1 20140212; EP 2694635 B1 20151125; ES 2421162 T3 20130829; MX 2013011464 A 20131017; MY 161793 A 20170515; PL 2694635 T3 20160531; WO 2012136427 A1 20121011; ZA 201306447 B 20141029

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**EP 11160937 A 20110404**; AR P120101100 A 20120330; AU 2012238950 A 20120305; BR 112013025674 A 20120305; CL 2013002817 A 20130930; CN 201280016945 A 20120305; EP 12707100 A 20120305; EP 2012053709 W 20120305; ES 11160937 T 20110404; MX 2013011464 A 20120305; MY P12013701844 A 20120305; PL 12707100 T 20120305; ZA 201306447 A 20130827