

JCW Patents – Composites and Textiles

7 Inventions Families 11 Patent Families 22 Patents
(As of December 16, 2022)

010 DNA Photolyase Reversal of Polymeric Thymine Photopolymers (2001-11-16)

016 Solubilized Cross-Linked Polymers with Photolyase

John C. Warner, Alessandra Morelli and Man Ching Ku

049 [US 6,946,284](#) Granted 2005-09-20, Published 2003-12-04, Filed 2002-11-15

017 Biodegradable Polymers

John C. Warner, Alessandra Morelli and Man Ching Ku

050 [US 2005/0266546](#) Published 2005-12-01, Filed 2005-06-28

011 Thymine Photopolymers for Hair Shaping (2002-12-20)

018 Photoreactive Polymers and Devices for use in Hair Treatments

John C. Warner, Amy S. Cannon, Jennifer Raudys and Arundhati Undurti

051 [US 7,550,136](#) Granted 2009-06-23, Published 2004-10-21, Filed 2003-12-19

052 [WO 2004/058187](#) Published 2004-07-15, Filed 2003-12-22

053 [AU 2003/297535](#) Granted 2009-12-03, Published 2004-07-22, Filed 2003-12-22

054 [CA 2510162](#) Published 2004-07-15, Filed 2003-12-22

055 [EP 1575537](#) Published 2005-09-21, Filed 2003-12-22

056 [JP 2006/514037](#) Published 2006-04-27, Filed 2003-12-22

023 Bromine-Free Fire-Retardant Mechanisms (2013-08-22)

039 Structured Endothermic Fire-Retardant Agents Encapsulated in Thermally-Sensitive Material and Fire-Retardant Composition Comprising Polymer Matrix and Microcapsules Incorporating Fire-Retardant Agents

John C. Warner, Pui-In Tang, Amie Stewart and Colleen Kelly

123 [US 9,856,381](#) Granted 2018-01-02, Published 2016-07-14, Filed 2013-08-22

124 [WO 2015/026353](#) Published 2015-02-26, Filed 2013-08-22

040 Bromine-Free Fire Retardant (FR) Agents Capable of Using a Cyclization Mechanism

John C. Warner, Pui-In Tang, Amie Stewart and Colleen Kelly

125 [US 2016/0312121](#) Published 2015-04-09, Filed 2013-10-02

126 [WO 2015/050542](#) Published 2015-04-09, Filed 2013-10-02

127 [CN 105592893](#) Published 2016-05-18, Filed 2013-10-02

041 Biomimetic Biobased Alternative to Polyurethane Foam Cushions (2017-05-03)

075 Biodegradable alternative to polyurethane-based foam cushioning inspired by biomimicry

John C. Warner, Justin R. Whitefield, Jennifer D. Polley and Emily J. Stoler

284 US 62/500,826. Filed 2017-05-03. Unpublished

285 [WO 2018/204565](#) Published 2018-11-08, Filed 2018-05-03

045 Microfibrillated Cellulose Composites (2017-11-30)

082 Products Comprising Plant-Based Microfibers

John C. Warner, Justin Whitfield, Richard M. Allen and Dwight Tshudy

314 [US 2021/0015121](#) Published 2021-01-21, 2018-11-30

315 [WO 2019/108887](#) Published 2019-06-06, Filed 2018-11-30

048 Alternative Crosslinking Mechanisms for Polyurethanes (2019-02-07)

086 Alternative Crosslinking Mechanisms for Polyurethane-Based Systems

John C. Warner, Carmen Baldino, Justin Whitfield, Frederick R. Kearney

332 [US 11,427,673](#) Granted 2022-08-30, Published 2020-08-13, Filed 2019-02-07

049 Biomaterial Biopolymer Composites (2019-10-18)

087 Formulations and Products to Replace Single-Use Plastics and Polystyrene with Bio-Benign Materials Such as Agricultural Wastes

Paul R. Kephart, John C. Warner, William E. Dorogy and Samuel Ellman

333 [WO 2021/077088](#) Published 2021-04-22, Filed 2020-10-19

334 [US 11,046,836](#) Granted 2021-06-29, Published 2021-04-22, Filed 2020-10-19

088 Formulations and Products to Replace Single-Use Plastics and Polystyrene with Bio-Benign Materials Such as Agricultural Wastes, Continuation 1

Paul R. Kephart, John C. Warner and Samuel Ellman

335 [US 11,434,373](#) Granted 2022-09-06, Published 2022-07-02, Filed 2022-01-24

089 Formulations and Products to Replace Single-Use Plastics and Polystyrene with Bio-Benign Materials Such as Agricultural Wastes, Continuation 2

Paul R. Kephart, John C. Warner and Samuel Ellman

336 US 2022/0389224 Published 2022-12-18, Filed 2022-07-29