

Title (en)

PROTECTIVE LINER FOR HELMETS AND OTHER ARTICLES

Title (de)

SCHUTZAUSKLEIDUNG FÜR HELME UND ANDERE ARTIKEL

Title (fr)

DOUBLURE DE PROTECTION POUR CASQUES ET AUTRES ARTICLES

Publication

**EP 3422887 A4 20200115 (EN)**

Application

**EP 17760965 A 20170303**

Priority

- US 201662303884 P 20160304
- US 2017020830 W 20170303

Abstract (en)

[origin: WO2017152151A1] Embodiments herein employ a novel strategy based on a floating cellular liner that acts as a torsional suspension system to dampen rotational acceleration, such as head acceleration in a helmet, in response to an oblique impact. Specifically, the torsional suspension consists of an anisotropic cellular liner that is at least partially recessed inside a more rigid adjacent shell, relative to which the cellular liner can simultaneously undergo translation and in-plane compression.

IPC 8 full level

**A42B 3/12** (2006.01); **A42B 3/06** (2006.01)

CPC (source: EP)

**A42B 3/064** (2013.01); **A42B 3/124** (2013.01)

Citation (search report)

- [A] US 2015047110 A1 20150219 - CHILSON JAMES A [US]
- [A] US 2006059605 A1 20060323 - FERRARA VINCENT R [US]
- [A] DE 8409316 U1 19840712
- See references of WO 2017152151A1

Cited by

WO2021122546A1; EP3838042A1; EP3838043A1; WO2021122564A1; EP4082372A1; EP3785558A1; US2023011532A1; WO2022229874A1; WO2022229875A1; WO2022229876A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2017152151 A1 20170908**; AU 2017228415 A1 20181011; AU 2017228415 B2 20191121; CN 109068783 A 20181221; CN 109068783 B 20221021; EP 3422887 A1 20190109; EP 3422887 A4 20200115; EP 3422887 B1 20201118

DOCDB simple family (application)

**US 2017020830 W 20170303**; AU 2017228415 A 20170303; CN 201780027218 A 20170303; EP 17760965 A 20170303