

Title (en)

COMPOSITE FILTER COMPRISING BIOLOGICAL COMPOSITION

Title (de)

VERBUNDFILTER MIT EINER BIOLOGISCHEN ZUSAMMENSETZUNG

Title (fr)

FILTRE COMPOSITE COMPRENANT UNE COMPOSITION BIOLOGIQUE

Publication

**EP 2517584 A4 20131225 (EN)**

Application

**EP 10838536 A 20100413**

Priority

- CN 200910263548 A 20091223
- CN 2010071732 W 20100413

Abstract (en)

[origin: EP2517584A1] This invention involves a type of composite filter tips, which contains biological composition adhering to the carrier that is added to the tow filter rod when the rod is made. The biological composition consists of cobalt porphyrin and ginkgo leaf extract, and the mass ratio of the former to the latter is 1:1~80. Such filter tip can not only reduce releasing quantity of harmful ingredients such as free radical, benzopyrene [a] and tobacco specific nitrosamine in smoke, but also make acute toxicity, subchronic toxicity, cytotoxicity and mutagenicity lower than those of the control group. In addition, no adverse impact is imposed on smoking quality of the cigarette.

IPC 8 full level

**A24D 3/06** (2006.01); **A24B 15/16** (2006.01); **A24B 15/20** (2006.01); **A24B 15/28** (2006.01); **A24D 3/02** (2006.01)

CPC (source: EP)

**A24D 3/06** (2013.01); **A24D 3/14** (2013.01)

Citation (search report)

- [XAY] WO 03053179 A1 20030703 - FILTRONA ITALIA S P A [IT], et al
- [XAY] CN 1252245 A 20000510 - GUO CANCHENG [CN]
- [XA] WO 9815197 A1 19980416 - LESSER CRAIG [US], et al
- [XA] EP 0720434 B1 20020123 - GOLDEN FILTER SA [GR]
- [XAY] WO 2007121439 A2 20071025 - FILLIGENT LTD [CN], et al
- [XA] CN 100431435 C 20081112 - CHONGQING TOBACCO INDUSTRY CO [CN]
- [A] DE 10009829 A1 20010920 - REEMTSMA H F & PH [DE]
- [XA] WO 03013285 A1 20030220 - CHO CHU-WHAN [KR], et al
- [A] DING X P ET AL: "Quality control of flavonoids in Ginkgo biloba leaves by high-performance liquid chromatography with diode array detection and on-line radical scavenging activity detection", JOURNAL OF CHROMATOGRAPHY, vol. 1216, no. 11, 13 March 2009 (2009-03-13), ELSEVIER SCIENCE PUBLISHERS B.V, NL, pages 2204 - 2210, XP025992541, ISSN: 0021-9673, [retrieved on 20080905], DOI: 10.1016/J.CHROMA.2008.08.115
- [A] FOLTTMANN H., QUADIR A.: "Polyvinylpyrrolidone (PVP) One of the Most Widely UsedExcipients in Pharmaceuticals: An Overview", DRUG DELIVERY TECHNOLOGY, vol. 8, no. 6, June 2008 (2008-06-01), pages 22 - 27, XP002715956, Retrieved from the Internet <URL:<http://www.pharma-ingredients.bast.com/Documents/ENP/Review%20Articles/DDT-June-2008.pdf>> [retrieved on 20131106]
- [A] GENERAL ANILINE & FILM CORPORATION: "Method for preparation of plug tobacco from smoking articles consisting of tobacco, with reduced undesirable properties", UNIVERSITY OF CALIFORNIA, SAN FRANCISCO, 27 March 2006 (2006-03-27), XP002715958, Retrieved from the Internet <URL:<http://legacy.library.ucsf.edu/tid/uie16a99/pdf>> [retrieved on 20131106]
- See references of WO 2011075970A1

Cited by

CN105167190A; CN104026732A

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

**EP 2517584 A1 20121031; EP 2517584 A4 20131225; EP 2517584 B1 20150902;** CN 101708072 A 20100519; CN 101708072 B 20110413;  
WO 2011075970 A1 20110630

DOCDB simple family (application)

**EP 10838536 A 20100413;** CN 200910263548 A 20091223; CN 2010071732 W 20100413