

Title (en)
Smoke-free cigarette

Title (de)
Rauchfreie Zigarette

Title (fr)
Cigarette sans fumée

Publication
EP 2138057 A1 20091230 (DE)

Application
EP 08013798 A 20080731

Priority
DE 102008030549 A 20080627

Abstract (en)
The cigarette (10) has a heating unit (14) for self-sufficient production of heat, and a substrate (16) in which nicotine or a nicotine-containing compound is present, where the cigarette is designed in a circular-shape in a cross-section. A triggering mechanism initiates a chemical oxidation reaction, and a casing (12) made from paper surrounds an outer side of the heating unit. The heating unit releases heat during oxidation of a metal e.g. iron, or metal compound e.g. iron-containing metal compound, present in the heating unit, where the heating unit is closed in an air-tight manner.

Abstract (de)
Die vorliegende Erfindung betrifft eine rauchfreie Zigarette mit einer Wärmeeinheit zur autarken Erzeugung von Wärme sowie mit einem Nikotin-Reservoir, in dem sich Nikotin oder eine nikotinhaltige Verbindung befindet, wobei die Wärmeeinheit derart ausgeführt ist, dass sie ein Metall oder eine Metallverbindung aufweist, das/die in der Wärmeeinheit in einer oxidierbaren Form vorliegt und bei dessen/deren Oxidation Wärme freigesetzt wird.

IPC 8 full level
A24F 42/10 (2020.01)

CPC (source: EP US)
A24F 42/10 (2020.01 - EP US)

Citation (applicant)

- WO 2007054167 A1 20070518 - HAUNI MASCHINENBAU AG [DE], et al
- DE 202006001663 U1 20060427 - KIESLICH DIRK [DE]
- DE 102006047146 A1 20080410 - CALEFICE MICHAEL [DE], et al
- DE 102006004484 A1 20070809 - SCHMIDT KARSTEN [DE]
- DE 69012823 T2 19950216 - KNUDSEN SVEIN [NO], et al
- WO 2004098324 A2 20041118 - NICSTIC AG [CH], et al
- WO 2006053521 A1 20060526 - WERNER JOHANNES [DE]
- DE 102007026979 A1 20080410 - SILLER FRIEDRICH [CH]
- US 5285798 A 19940215 - BANERJEE CHANDRA K [US], et al
- WO 2006022715 A1 20060302 - ALEXZA MOLECULAR DELIVERY CORP [US], et al
- US 2005016549 A1 20050127 - BANERJEE CHANDRA KUMAR [US], et al

Citation (search report)

- [XY] WO 2006053521 A1 20060526 - WERNER JOHANNES [DE]
- [X] WO 2006022715 A1 20060302 - ALEXZA MOLECULAR DELIVERY CORP [US], et al
- [X] US 2003209240 A1 20031113 - HALE RON L [US], et al
- [X] US 2005016549 A1 20050127 - BANERJEE CHANDRA KUMAR [US], et al
- [Y] DE 102006041544 A1 20070809 - WERNER JOHANNES [DE]
- [Y] US 5285798 A 19940215 - BANERJEE CHANDRA K [US], et al

Cited by
CN104957767A; US10036574B2; US11241042B2; US11825870B2; US11452313B2; US12016393B2; US11672279B2; US10542777B2; US11064725B2; US11659863B2; US11924930B2

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
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DOCDB simple family (application)
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