

Title (en)

MICROFLUIDIC CHIP AND DEVICE FOR DETERMINING THE PHYSICAL PROPERTIES AND/OR THE CHEMICAL NATURE OF SOLID MICROPLASTIC PARTICLES SUSPENDED IN A LIQUID SAMPLE

Title (de)

MIKROFLUIDISCHER CHIP UND VORRICHTUNG ZUR BESTIMMUNG DER PHYSIKALISCHEN EIGENSCHAFTEN UND / ODER DER CHEMISCHEN NATUR VON IN EINER FLÜSSIGEN PROBE SUSPENDIERTE FESTEN MIKROPLASTISCHEN TEILCHEN

Title (fr)

PUCE MICROFLUIDIQUE ET DISPOSITIF PERMETTANT DE DÉTERMINER LES PROPRIÉTÉS PHYSIQUES ET/OU LA NATURE CHIMIQUE DE PARTICULES MICROPLASTIQUES SOLIDES EN SUSPENSION DANS UN ÉCHANTILLON LIQUIDE

Publication

EP 3950133 A1 20220209 (EN)

Application

EP 20305916 A 20200807

Priority

EP 20305916 A 20200807

Abstract (en)

A microfluidic chip (1) used for determining the physical properties and/or the chemical nature of at least two microplastic particles (3, 26, 28) suspended in a water liquid sample (4), the microplastic particles (3, 26, 28) having a size smaller than 200 micrometers, which comprises a first microfluidic channel (13) in which the microplastic particles flow, at least one filter (23) allowing the trapping of the microplastic particles (3, 26, 28) in the flow to accumulate the microplastic particles (3, 26, 28) in at least one stop area (24) on the filter (23), the filter (23) a being pattern engraved on the microfluidic chip (1), at least one output (19) downstream the filter (23), to exit the water sample (4) without the microplastic particles (3) from the microfluidic chip (1).

IPC 8 full level

B01L 3/00 (2006.01)

CPC (source: EP)

B01L 3/502761 (2013.01); **B01L 3/502776** (2013.01); **B01L 2200/0652** (2013.01); **B01L 2200/0668** (2013.01); **B01L 2300/0681** (2013.01); **B01L 2300/0864** (2013.01); **B01L 2300/0867** (2013.01); **B01L 2300/0883** (2013.01); **B01L 2400/086** (2013.01)

Citation (applicant)

CN 110320250 A 20191011 - UNIV DALIAN MARITIME

Citation (search report)

- [XI] US 2014087456 A1 20140327 - LIM CHWEE TECK [SG], et al
- [XI] US 2013337500 A1 20131219 - TAN SWEE JIN [SG], et al

Cited by

CN117554319A

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3950133 A1 20220209

DOCDB simple family (application)

EP 20305916 A 20200807