

Title (en)  
DOSING SYSTEM FOR A DISHWASHER MACHINE

Title (de)  
DOSIERSYSTEM FÜR EINE GESCHIRRSPÜLMASCHINE

Title (fr)  
SYSTÈME DE DOSAGE POUR UN LAVE-VAISSELLE

Publication  
**EP 2642908 B2 20230118 (DE)**

Application  
**EP 11767721 A 20111012**

Priority  
• DE 102011005979 A 20110323  
• EP 2011067789 W 20111012

Abstract (en)  
[origin: WO2012126537A1] The invention relates to a dosing system (1) for releasing at least one detergent preparation (A,B,C) into a dishwasher machine, comprising a dosing appliance (2) with a light source (4) and a cartridge (3) that can be coupled to the dosing appliance (2) and in which at least one flowable preparation (A,B,C) is stored, wherein the cartridge (3) has a width (b)-depth (t) ratio of 3:1 to 20:1 and a height (h)-depth (t) ratio of 3:1 to 20:1, and the walls of the cartridge (3) have, at least in sections, a transmission rate in the wavelength range between 700nm and 1 mm, preferably between 700nm and 1000nm, of 75%-99%, the flowable preparation (A,B,C) has a transmission rate in the wavelength range between 700nm and 1 mm, preferably 700nm-1000nm, of 75%-99%, the outwardly-oriented surface of the cartridge (3) has, at least in sections, a surface roughness of between 0.5 and 5 microns, preferably between 0.75 and 2.5 microns, especially preferably between 1 and 1.5 microns, and the light source (4) that emits light at least in a wavelength range between 700nm and 1 mm, preferably 700nm and 1000nm, irradiates into the cartridge, the light source (4) having a radiation angle a larger than 5°, preferably between 5° and 60°; and the light source (4) and the cartridge (3) are configured such that the average path length of the light beam (L) through the cartridge (3) corresponds to between 0,1\*10<sup>5</sup> and 10\*10<sup>5</sup>, preferably between 0,5\*10<sup>5</sup> and 7,5\*10<sup>5</sup>, particularly preferably between 1,0\*10<sup>5</sup> and 6,5 \*10<sup>5</sup> times the wavelength of the light emitted from the light source (4).

IPC 8 full level  
**A47L 15/44** (2006.01); **A47L 15/00** (2006.01)

CPC (source: EP US)  
**A47L 15/006** (2013.01 - EP US); **A47L 15/4445** (2013.01 - US); **A47L 15/4454** (2013.01 - EP US); **A47L 15/4463** (2013.01 - EP US); **A47L 15/4472** (2013.01 - EP US); **A47L 2401/10** (2013.01 - EP US); **A47L 2401/12** (2013.01 - EP US); **A47L 2401/30** (2013.01 - EP US); **A47L 2401/32** (2013.01 - EP US); **A47L 2501/07** (2013.01 - EP US)

Citation (opposition)  
Opponent :  
• WO 2010006761 A2 20100121 - HENKEL AG & CO KGAA [DE], et al  
• WO 2010007043 A2 20100121 - HENKEL AG & CO KGAA [DE], et al

Cited by  
CN105934188A

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)  
**DE 102011005979 A1 20120927**; EP 2642908 A1 20131002; EP 2642908 B1 20150422; EP 2642908 B2 20230118; ES 2537903 T3 20150615; PL 2642908 T3 20150930; US 2014084024 A1 20140327; US 9282876 B2 20160315; WO 2012126537 A1 20120927

DOCDB simple family (application)  
**DE 102011005979 A 20110323**; EP 11767721 A 20111012; EP 2011067789 W 20111012; ES 11767721 T 20111012; PL 11767721 T 20111012; US 201314031204 A 20130919