

Title (en)  
FOOD FRESHNESS SENSOR

Title (de)  
LEBENSMITTELFrischeSensor

Title (fr)  
CAPTEUR DE FRAICHEUR D'ALIMENTS

Publication  
**EP 1828401 A4 20081217 (EN)**

Application  
**EP 05848828 A 20051206**

Priority  
• US 2005043843 W 20051206  
• US 63375004 P 20041207

Abstract (en)  
[origin: WO2006062870A2] A sensor for detecting a presence of bacteria in a perishable food includes a pH sensitive solution of bromothymol blue and methyl red mixed with an alkaline resulting in a pH value and a generally green color changing to a generally orange color responsive to exposure to a concentration of carbon dioxide. The solution is packaged in a gas permeable container using a TPX (PMP) thin film that allows an effective diffusion of carbon dioxide through the container. The pH level drops when acidic carbon dioxide comes into contact with the solution resulting from a formation of carbonic acid, making the solution an indicator of carbon dioxide concentration, and thus an indication of bacterial growth.

IPC 8 full level  
**C12Q 1/04** (2006.01); **C12M 1/34** (2006.01); **G01N 33/02** (2006.01)

CPC (source: EP)  
**C12Q 1/04** (2013.01); **C12Q 1/22** (2013.01); **G01N 33/02** (2013.01); **G01N 33/12** (2013.01)

Citation (search report)  
• [A] US 2001039033 A1 20011108 - OGAWA HIROYUKI [JP]  
• [Y] WO 9904256 A1 19990128 - US HEALTH [US], et al  
• [X] US 2004115319 A1 20040617 - MORRIS ROGER [US], et al  
• [Y] EP 0627363 A1 19941207 - TRIGON IND LTD [NZ]  
• [Y] US 5753285 A 19980519 - HORAN THOMAS J [US]  
• [PX] WO 2005095635 A1 20051013 - AGCERT INTERNAT LLC [US], et al & EP 1730295 A  
• See references of WO 2006062870A2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2006062870 A2 20060615; WO 2006062870 A3 20061116**; AR 051789 A1 20070207; CA 2590091 A1 20060615; EP 1828401 A2 20070905; EP 1828401 A4 20081217; JP 2008523391 A 20080703

DOCDB simple family (application)  
**US 2005043843 W 20051206**; AR P050105125 A 20051207; CA 2590091 A 20051206; EP 05848828 A 20051206; JP 2007545538 A 20051206