

Title (en)
CYTOSOLIC FLUORESCENT ION INDICATORS

Title (de)
INDIKATOREN FÜR FLUORESZIERENDE CYTOSOLISCHE IONEN

Title (fr)
INDICATEURS D'ION FLUORESCENTS CYTOSOLIQUES

Publication
EP 2619199 A2 20130731 (EN)

Application
EP 11827351 A 20110920

Priority
• US 38469510 P 20100920
• US 2011052353 W 20110920

Abstract (en)
[origin: WO2012040204A2] Novel fluorophores for fluorescent ion indicators incorporate water-solubilizing functional groups. These fluorophores enable visible-wavelength analysis of ion concentrations with chelators that are insoluble or poorly soluble in water. A green version of the fluorophore comprises a putative fluorescein with carboxylate appendages. An orange version of the fluorophore comprises a putative rhodamine, also with carboxylate appendages. Attaching the fluorophore to a 12-crown-4, a 15-crown-5, a 18-crown-6, a 21-crown-7, or a 24-crown-8 produces lithium, sodium, potassium, rubidium, and cesium indicator families, respectively. Attaching the fluorophore to diaza [1,1,1], [1,1,2], [1,2,2], [2,2,2], [2,2,3], [2,3,3], or [3,3,3] cryptands produces more selective lithium, sodium, potassium, rubidium, and cesium indicator families, respectively. Attaching the fluorophore to BAPTA, APTRA, or half- BAPTA or their analogs produces new calcium, magnesium, and other metal ions indicator families that strongly resist leakage from the cell.

IPC 8 full level
C07D 413/14 (2006.01); **G01N 33/58** (2006.01)

CPC (source: CN EP)
C07D 311/90 (2013.01 - CN); **C07D 413/10** (2013.01 - CN EP); **C07D 413/14** (2013.01 - CN EP)

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)
WO 2012040204 A2 20120329; WO 2012040204 A3 20140417; CN 103687857 A 20140326; CN 103687857 B 20161109;
EP 2619199 A2 20130731; EP 2619199 A4 20150812

DOCDB simple family (application)
US 2011052353 W 20110920; CN 201180055664 A 20110920; EP 11827351 A 20110920