



(19) **United States**

(12) **Patent Application Publication**
Ikegami et al.

(10) **Pub. No.: US 2014/0027286 A1**
(43) **Pub. Date: Jan. 30, 2014**

(54) **ELECTROPHORETIC MOBILITY MEASUREMENT CELL AND MEASUREMENT APPARATUS AND METHOD USING THE SAME**

Publication Classification

(51) **Int. Cl.**
G01N 27/447 (2006.01)
(52) **U.S. Cl.**
CPC **G01N 27/44756** (2013.01)
USPC **204/549; 204/645**

(71) Applicants: **Mayumi Ikegami**, Osaka (JP);
Katsuhiro Morisawa, Osaka (JP);
Tamotsu Hamao, Osaka (JP); **Hidehiro Atagi**, Osaka (JP)

(57) **ABSTRACT**

An electrophoretic mobility measurement cell includes a container having a rectangular parallelepiped internal space for introducing a sample solution, two electrodes for applying an electric field to the internal space, tubular sample injection and extraction portions in communication with the internal space, first and second caps for covering the sample injection and extraction portions and sealing the internal space, the first cap has a first side surface contacting an inner side surface of the tubular sample injection portion, the inner side surface formed so that the cross-sectional area of the tube increases with distance from the internal space, and the area of the cross section of the first side surface decreases in the direction of insertion of the first cap. The cell and electrode portions are formed integrally, the electrode portions are made disposable together with the cell, and bubbles are unlikely to remain during injection of the sample solution.

(72) Inventors: **Mayumi Ikegami**, Osaka (JP);
Katsuhiro Morisawa, Osaka (JP);
Tamotsu Hamao, Osaka (JP); **Hidehiro Atagi**, Osaka (JP)

(21) Appl. No.: **14/045,342**

(22) Filed: **Oct. 3, 2013**

Related U.S. Application Data

(63) Continuation of application No. PCT/JP2012/056444, filed on Mar. 13, 2012.

Foreign Application Priority Data

Apr. 26, 2011 (JP) 2011-098624

