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Murthy

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(54) **SYSTEM AND METHOD FOR DETECTING METALS IN A SOLUTION**

(56) **References Cited**

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(57) **ABSTRACT**

There is provided a system that detects metal ions in a solution easily and with high precision. Such system includes: a unit that produces a mixed solution by mixing a first solution, which includes a first organic compound that has affinity with metal ions to be measured, and a second solution to be measured and supplies the mixed solution to a container; and a unit that detects the metal ions to be measured in the second solution based on a spectrum obtained by ionizing gas in a head space of the container. An example of the first organic compound is siderophores, such as catechol or AHA. The unit that detects the concentration is an ion mobility sensor and is capable of detecting the concentration of metal ions in a solution in real time.

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(52) **U.S. Cl.**

CPC **G01N 27/624** (2013.01)

(58) **Field of Classification Search**

USPC 250/281, 282, 283, 288

See application file for complete search history.

10 Claims, 3 Drawing Sheets

