

[ABSTRACT OF THE DISCLOSURE]

An electrochemical measurement device for measuring a chemical substance generated or consumed in a biological sample in a solution includes electrode surfaces, a spacer, and at least one wall plate. The
5 electrode surfaces, the spacer, and the wall plate are arranged on the same flat surface. Each of the electrode surfaces has a diameter d_{el} not more than $80\text{ }\mu\text{m}$. A height of the spacer has a predetermined value within a range given by $h = 21.8(d_{el}+0.8)/(d_{el}+9.7)\pm 5\text{ }[\mu\text{m}]$. The spacer has a structure in which an enclosed three-dimensional region is not formed by
10 the biological sample, the flat surface, and the spacer while the biological sample is in contact with the spacer. The wall plate has a property of being impervious to a dissolved substance in the solution and has a height not less than the height of the spacer. Two of the electrode surfaces are separated by the wall plate.