# **Microchemical Chip**

## Development of Microchemical Chips by Glass/glass Low Temperature Bonding Method

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#### 1. Introduction

A microchemical chip is a chemical device in which a micro scale fine space is used in the field of diagnosis and analysis.

It is expected to realize a reduction in a mix and reaction time, a significant reduction in an amount of a sample and reagent, a reduction in the size of a device.

#### 2. Key Features, Principle of the Invention, Structure of the Material

Glass substrate bonding method at low temperature(25~100°C) was newly developed to integrate functions in micro and extended-nano space.

The fabricated chips which a functional material such as a biological substance, or a catalyst, and an electrode is partially modified, achieve ultra-high performances in analytical and energy devices.



### 3. Fabrication Process of the Microchemical Chip



#### -Biological analysis (as DNA, RNA, protein, and metabolite analysis) -Medical diagnostics (as immunoassay) -Single cell, single molecule analysis

-Personal health check at home

#### 5. Patent Licensing Available

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