

Application Note

A-12

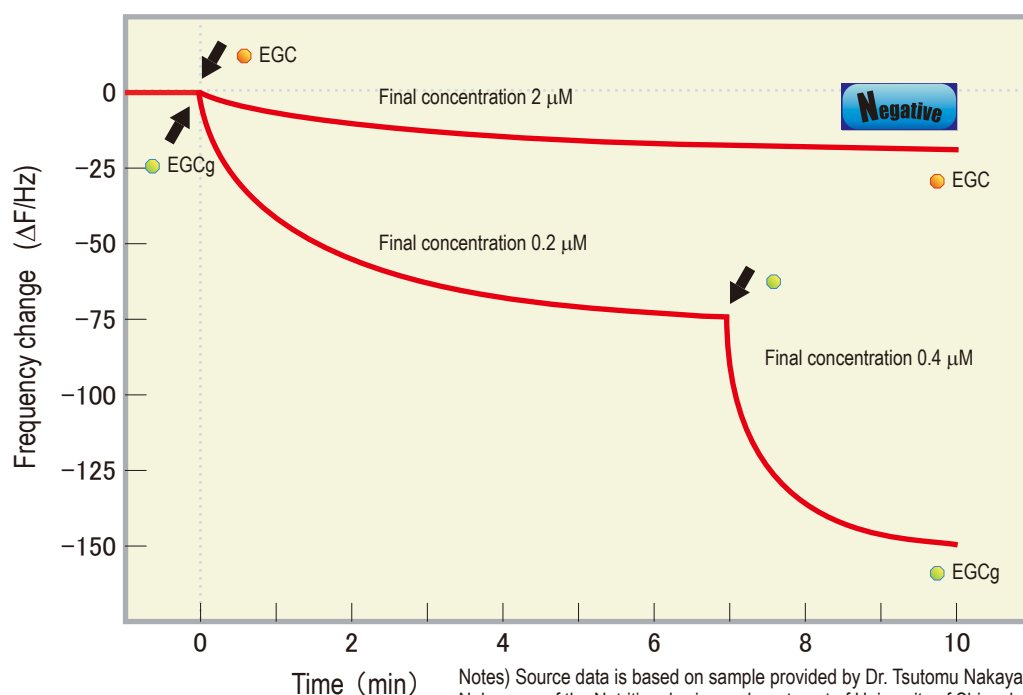
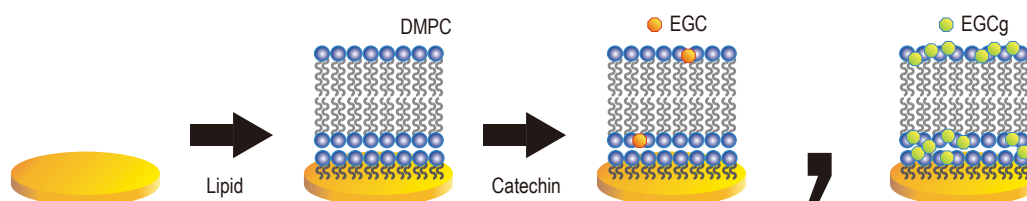
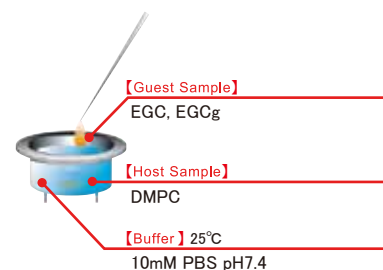
Binding of Catechin to Lipid Membrane

Materials

1. Lipid multilayer
(DMPC: dimyristoyl phosphatidyl choline)
2. Catechin: Epigallo Catechin (EGC)
3. Catechin: Epigallo Catechin gallate (EGCg)

Results

1. EGC is hard to bind onto DMPC multilayer.
2. EGCg is easy to bind onto DMPC multilayer.
3. Catechin that has gallic acid group has high affinity to lipid membrane.



Notes) Source data is based on sample provided by Dr. Tsutomu Nakayama & Ms. Yumi Nakazawa of the Nutritional science department of University of Shizuoka.

Applications

1. Interaction analysis between small molecules like polyphenol and lipid membrane.
2. Taste and smell sensing on lipid coated QCM.
3. Simple & high sensitivity detection of small molecules with secondary antibody.