

### Fabrication of protein thin film using various linkers for investigating variation of redox property

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Thin film composed of metalloprotein using various chemical linkers was fabricated for investigating chemical linker-length effect between gold substrate and immobilized protein. Myoglobin, it is well-known metalloprotein which has iron ions of heme group, was utilized in this research. The changes of thickness due to the immobilization were confirmed by surface Plasmon resonance spectroscopy and the morphology changes of immobilized surface were validated with atomic force microscopy. Cyclic voltammetry was utilized to confirm redox property of immobilized protein with chemical linkers having various lengths.

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