

CAMT Seminar

“Plasma polymerization - versatile modification of materials for tissue engineering”

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Location: Main Conference Room (1st floor), Bldg. A12
Center for Atomic and Molecular Technologies (CAMT)
(A12 棟 1 階会議室)

Abstract

Plasma polymers provide functional groups suitable for immobilization of biomolecules and cell colonization and their properties can be tuned in a wide range by a simple modification of plasma conditions. Therefore, plasma polymerization provides a large playground for the modification of synthetic materials that are often preferred for their easier processability but possess much worse properties towards biocompatibility and bioactivity. The key decision for the particular application is the selection of plasma polymerization set-up and conditions. This talk will provide an overview of different possibilities for the deposition of plasma polymers containing amine and carboxyl groups, i.e. the functional groups that are proposed to influence positively the attachment and proliferation of cells at surfaces. The plasma polymerization at low as well as atmospheric pressure will be discussed on the basis of examples showing the film properties and behaviour of cells.

(Host: Satoshi Hamaguchi Ext:7913)