

Theme : Functional Materials

Subject : Antifouling Coating Materials

Introduction

The goal of this research project is to explore novel polymeric coating materials that can inherently resist fungal growth without using biocide.

Coating will be applied to the various surfaces such as polymers and metals.

The coated surface is expected to show antifouling effect for interior and exterior applications, without additional operation, in the dark and frequent wet condition.

Scope

Challenges that significantly advance the antifouling coating technologies include:

- Coatings should offer significant finishing advantages for consumer electronics parts.
- Coating should have chemical resistance including detergents.
- Coating should maintain antifouling effect on fungal growth without any additional operation.
- Simply applicable to polyolefins (PP, PE) styrenics (ABS, SAN), acrylics (PMMA), polyesters, silicone, rubbers, and metals.
- Preferably curable at low temperatures or no bake.
- Coating should have no health risk and be odorless.
- Spray or dipping process possible
- Materials can be produced at reasonable costs.

Expected Deliverables

The following is open to discussion:

- Suggestion of advanced materials with new structure and/or composition.
- Detailed progress reports every 3 months summarizing accomplishments.
- Prototype samples
- Patents with Samsung Electronics (if agreed)