

## Preparation of Chemically Anchored Cytomimetic Thin films on Polymer Substrates

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We have prepared a chemically anchored cytomimetic thin film of a phospholipid monolayer on an acrylated polymer substrates by in situ photopolymerization. The mono-acryloyl phospholipid (1-palmitoyl-2-[12-(acryloyloxy)-dodecanoyl]-sn-glycero-3-phosphocholine; acryloyl-PC) was used to prepare phospholipid vesicles and then these vesicles were fused onto acrylated polymer substrates, which were synthesized by the acrylation of poly(octadecyl acrylate-co-hydroxybutyl acrylate) with acryloyl chloride. The pre-assembled phospholipids monolayer on acrylated polymer films were in situ photopolymerized by visible irradiation with EY (eosin Y)/ TEA (triethanolamine) as co-initiators. The physicochemical properties of phospholipid thin films were confirmed using scanning electron micrograph (SEM), water contact angles studies, and X-ray photoelectron spectroscopy (XPS). The polymerized phospholipid monolayer formed chemically anchored phospholipid monolayer on acrylated polymer substrates. The blood compatibility of chemically anchored phospholipid thin films were evaluated using albumin absorption and platelet adhesion, in vitro.