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The adhesion of normal human dermal fibroblasts to the cyclopropylamine plasma polymers studied by holographic microscopy

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Abstract

The understanding of cell-surface interactions plays important role for the biomaterials development and bioengineering. Although it is already known that amine groups increase the cell adhesion and proliferation, the influence of amine layers properties on cell viability is the subject of further investigation. In this work, amine-rich coatings were prepared by low pressure plasma polymerization of cyclopropylamine using radio frequency (RF)capacitively coupled discharge. Normal human dermal fibroblasts were chosen for the monitoring of biological response to the properties of amine layers. As a superior technique for the label-free monitoring of the cell-surface interaction, coherence-controlled holographic microscopy

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