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Magnetically Enhanced Microflow Cytometer for Bead- and Cell-based Immunoaffinity Measurements in Whole Blood Samples

Scientific thesis for the attainment of the academic degree
Master of Science (M.Sc.)
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Contents

1. Introduction and Motivation

2. Theoretical Prequisites

2.1. Microfluidics

conservation of mass, momentum reynolds number

2.1.1. Flow Field inside Microchannels

Navier-Stokes-Approximation for Hagen-Poiseuille

2.1.2. Particles in Microfluidics

Stokes Drag Force Gravity Magnetic Force Friction Interface-Forces

2.1.3. •

2.2. Surface Chemistry

2.2.1. Carbodiimide Crosslinker Chemistry

EDC-NHS-Activation sulfo-NHS vs. NHS

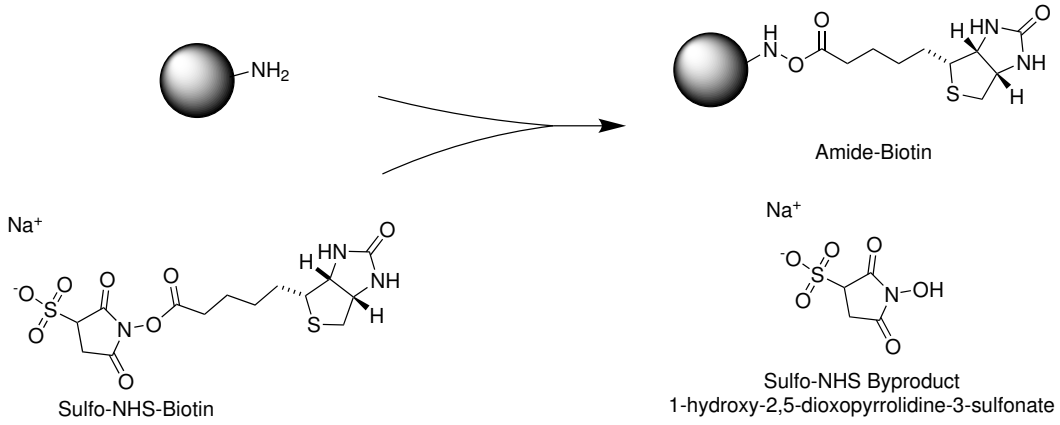

Figure 1 TestSvg

2.3. MRCyte

Short intro over MRCyte Foto of setup with arrows to necessary parts Microscope Stages PEEK holder Helmholtz coils Kepco MFLI DAQ

2.3.1. Focusing Structures

test,test

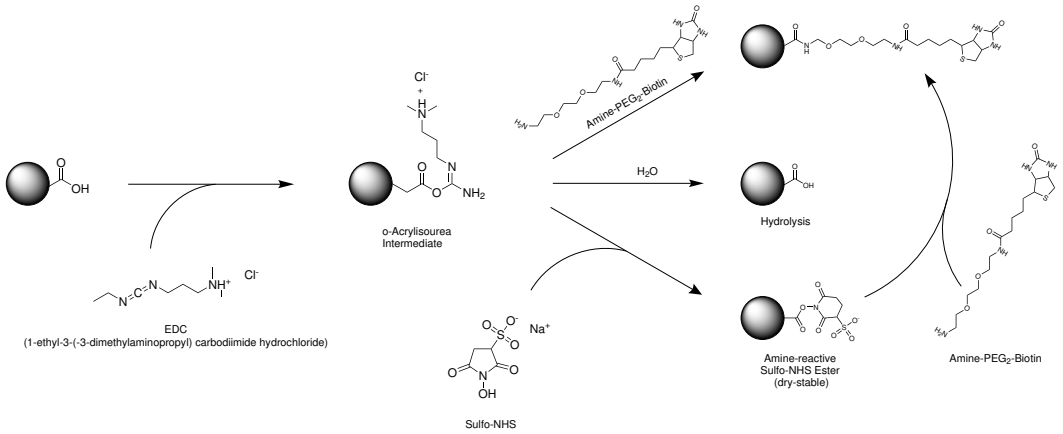

Figure 2 TestSvg

2.3.2. GMR

Different produced GMR stacks Wheatstone Bridge setup Magnet alignment

Hysteresis Alignment

test,test

2.3.3. Electrical Circuit

Ground PCB Stacked PCBs with spacer

2.3.4. Electronic Readout

test,test

Single GMR

test,test

Dual GMR

one MFLI supplies both at same freuqency. Aux Trigger tested, but no advantage.

3. Materials and Methods

test,test

4. Results

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5. Discussion

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6. Outlook

List of Figures

List of Tables

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Statement

I declare that I have authored this thesis independently, that I have not used other than the declared sources / resources, and that I have explicitly marked all material which has been quoted either literally or by content from the used sources.

Munich, December 4th, 2020, Signature