

Abstract Submitted
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Hemorheology in PDMS Micro channel with varied surface roughness BHARATH BABU NUNNA, SHIQIANG ZHUANG, EON SOO LEE¹, New Jersey Inst of Tech — Hemorheology in micro channel is studied in order to enhance the diagnostic phenomenon of micro assay. Blood consists of formed elements (RBC, WBC & Platelets) and Plasma (Water, Plasma proteins & other solutes). Blood due to existence of RBC will behave as a Non-Newtonian fluid. The flow of blood varies on surface roughness of the passage. In this presentation the blood flow characteristics is examined in the micro channel with varied surface roughness on the walls of PDMS micro channels. The micro channel considered for this experiment is fabricated with a cross section close to a rectangular shape with width of 200 μm -1000 μm and depth of 100 μm and optically transparent. The analysis of Surface roughness impact on blood flow will help to define and design the micro channel with specified surface treatment on the walls of the channel.

¹Prof. Eon Soo Lee is the “Principle Investigator” of our lab.

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