

ELECTRONIC SUPPLEMENTARY INFORMATION

Blood compatible microfluidic system for pharmacokinetic studies in small animals

Laurence Convert^{a,c}, Frédérique Girard Baril^a, Vincent Boisselle^a, Jean-François Pratte^b,
Réjean Fontaine^b, Roger Lecomte^c, Paul G. Charette^a, Vincent Aimez^{*a}

^aNanofabrication and Nanocharacterization Research Center, Department of Electrical and Computer Engineering, Université de Sherbrooke, 2500 Bd Université, Sherbrooke, QC, Canada, J1K 2R1
e-mail: Vincent.Aimez@USherbrooke.ca, Fax: +1(819)821-7937, Ph.: +1(819)821-8000 #62137

^bSherbrooke Medical Devices Research Group, Department of Electrical and Computer Engineering, Université de Sherbrooke, 2500 Bd Université, Sherbrooke, QC, Canada, J1K 2R1

^cSherbrooke Molecular Imaging Centre, Department of Nuclear Medicine and Radiobiology, Université de Sherbrooke, 3001 12th Ave. North, Sherbrooke, QC, Canada, J1H 5N4

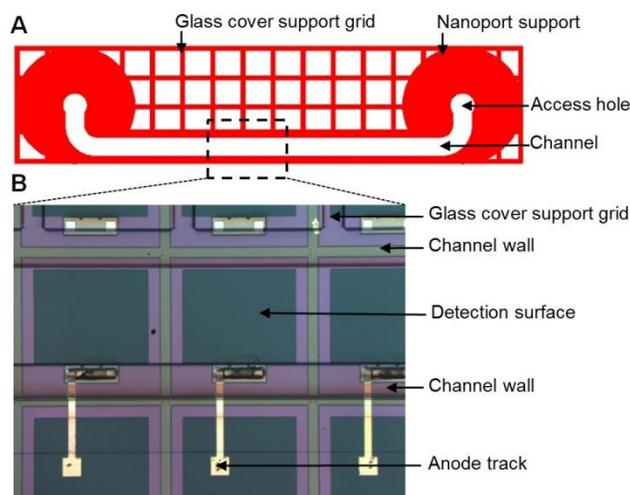


Fig. S1: A. Wall layer photomask. B. Picture of a section of the microchannel walls built on top of commercial unpackaged photodiodes (optical microscope, 2.5X).

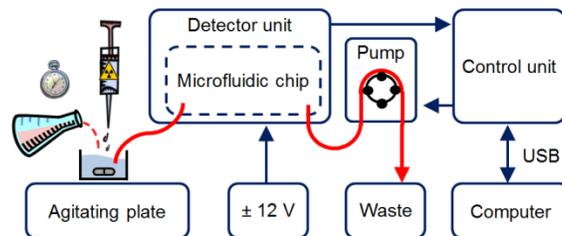


Fig. S2: Block diagram of the acquisition setup. The pump was used only for the dose-response curve and input function measurements. The agitating plate was used only for dose-response curve measurement.

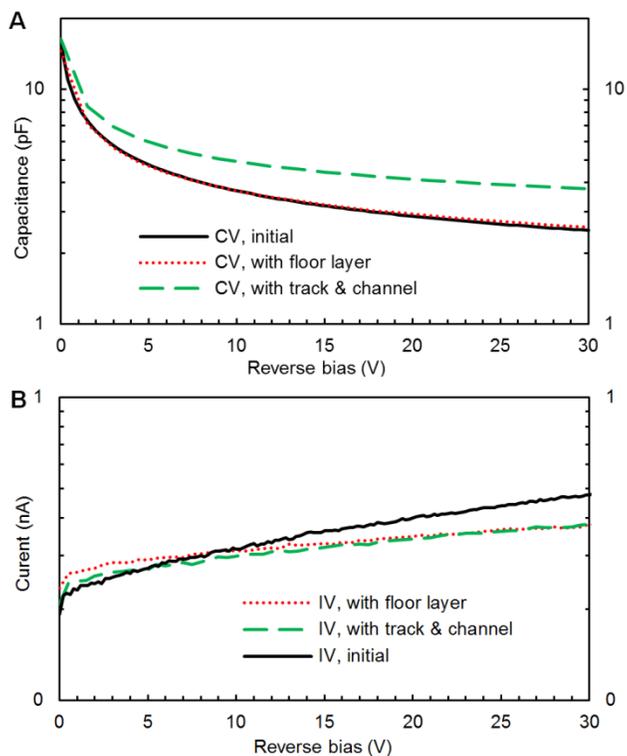


Fig. S3: CV (A) and IV (B) measurements of one typical diode before processing, with the SiO_2/KMPR floor layer, and with the gold track and the complete microchannel.

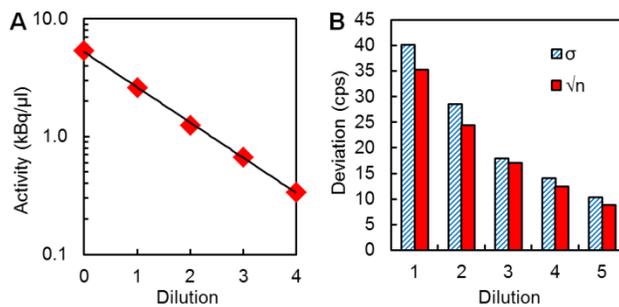


Fig. S4: Dose response curve supplementary graphs. A. Resulting mean plateau height for each dilution. B. Resulting plateau standard deviation (σ) compared to Poisson statistical variation (\sqrt{n}).