



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)

/ Publications of IISER Mohali (/jspui/handle/123456789/4)

/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/2569>

Title:	Poly(l-lysine)-Coated Liquid Crystal Droplets for Cell-Based Sensing Applications
Authors:	Sidiq, S. (/jspui/browse?type=author&value=Sidiq%2C+S.) Prasad, G.V.R.Krishna (/jspui/browse?type=author&value=Prasad%2C+G.V.R.Krishna) Mukhopadhyaya, Arunika (/jspui/browse?type=author&value=Mukhopadhyaya%2C+Arunika) Pal, S.K. (/jspui/browse?type=author&value=Pal%2C+S.K.)
Keywords:	Liquids Adsorption Surface interactions Molecular interactions
Issue Date:	2017
Publisher:	ACS Publications
Citation:	Journal of Physical Chemistry B, 121 (16)
Abstract:	Exploring intermolecular interactions in the presence of biomolecules that dictate director configurations of liquid crystals (LCs) enables new techniques for optically probing complex biological phenomena and realizing new classes of sensors and actuators. However, the design of a new approach by probing direct protein–LC interactions (in aqueous media) that can mimic chemico-biological interactions at the cellular level remains elusive. Here, we present a simple method to produce biocompatible LC droplets through poly(l-lysine) (PLL)–LC interactions in situ for reporting the presence of cells and monitoring the real-time interaction of cells with their environments that are mediated by topological defects in those droplets. In addition, responsive PLL droplets have been found to be useful as a template for reporting Annexin V–phosphatidylserine interactions, providing a simple measure of the harmful effect on cell health.
URI:	https://pubs.acs.org/doi/10.1021/acs.jpcb.7b00551 (https://pubs.acs.org/doi/10.1021/acs.jpcb.7b00551) http://hdl.handle.net/123456789/2569 (http://hdl.handle.net/123456789/2569)
Appears in	Research Articles (/jspui/handle/123456789/9)
Collections:	

Files in This Item:

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/2569/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text	View/Open (/jspui/bitstream/123456789/2569/1/Need%20to%20add%20pdf.odt)

[Show full item record \(/jspui/handle/123456789/2569?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/2569/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.

