

Experimental report

15/02/2021

Proposal: INTER-371

Council: 4/2017

Title: SANS studies of matchout deuterated cholesterol

Research area:

This proposal is a new proposal

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Samples: Cholesterol

Instrument	Requested days	Allocated days	From	To
D22	1	1	06/03/2018	07/03/2018

Abstract:

Experimental Report for experiment: **INTER-371**

SANS studies of matchout deuterated cholesterol

The aim of the experiment was to determine the match point of specifically deuterated cholesterol by means of a contrast match series consisting of POPC-cholesterol vesicles in solvents of varying levels of D₂O.

During our beam time we measured the contrast match series for POPC vesicles alone and POPC-cholesterol vesicles to determine the matchpoint of the cholesterol. This was done successfully and the matchpoint was determined to be 101% D₂O.

This data has been published: *Scientific Reports* volume 9, Article number: 5118 (2019).

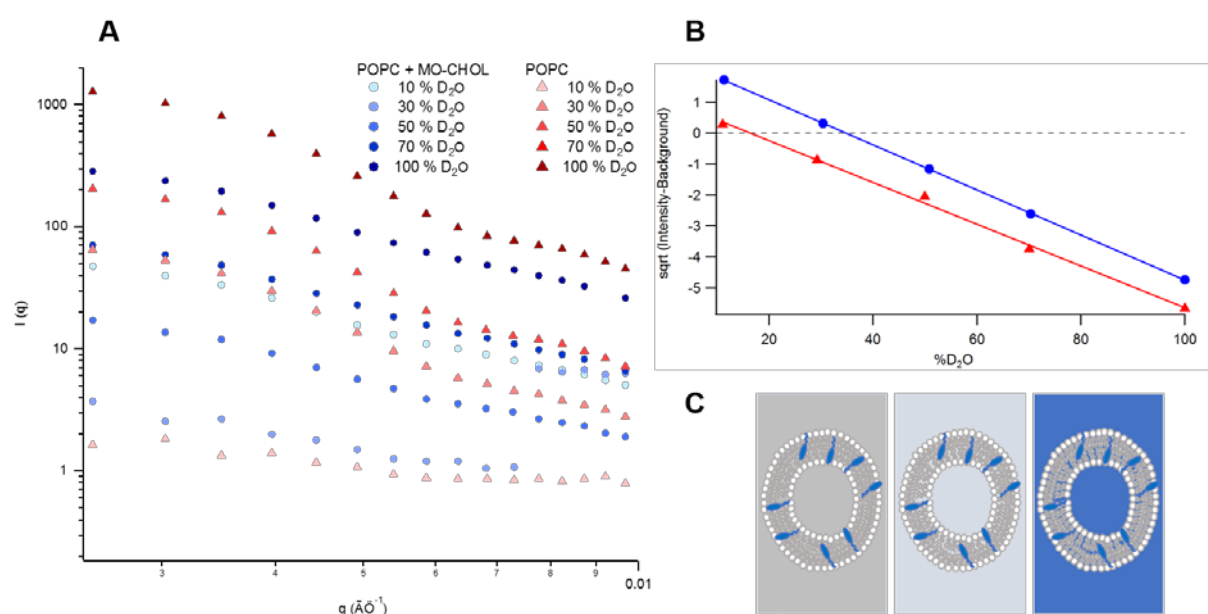


Figure 1. SANS data of POPC and POPC-cholesterol vesicles (A). Plot to determine matchpoint (B). Graphic of vesicles in contrast match series (C).