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Interactions of Perfluoroalkyl Substances with a Phospholipid Bilayer Studied by Neutron Reflectometry

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Abstract

The interactions between perfluoroalkyl substances (PFASs) and a phospholipid bilayer (1,2-dimyristoyl-sn-glycero-3-phosphocholine) were investigated at the molecular level using neutron reflectometry. Representative PFASs with different chain length and functional groups were selected in this study including: perfluorobutane sulfonate (PFBS), perfluorohexanoate (PFHxA), perfluorohexane sulfonate (PFHxS), perfluorononanoate (PFNA), perfluorooctane sulfonate (PFOS), and perfluorooctane sulfonamide (FOSA).

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