Diisopropylnaphthalene in the surface sediments of an Arctic fjord: environmental significance

Diisopropylnaphthalene (DIPN) has highly persistent and bioaccumulative properties. DIPN in the environment has not been thoroughly investigated. This is the first such report of DIPN in the sediments of Kongsfjorden. In this study, surface sediments were analyzed to track the presence of DIPN in Kongsfjorden, an Arctic fjord fringing the International Arctic Research Facilities of Ny-Ålesund, Svalbard. Increasing anthropogenic impacts in the form of Persistent Organic Pollutants (POPs), related to human activities and increased use of fossil fuels have been observed at many places along the Arctic Regions. Outcomes of this study suggest that the source of DIPN in the fjord could be a result of human activities at Ny-Ålesund and its environs. While its present-day concentrations may not be alarming, considering the increasing activities at Ny-Ålesund, it might be prudent to exercise caution to ensure that the levels do not increase over time.