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Synergistic Effect of Fluorinated Hexane as Diluent of Fluorinated Octanol for Salicylic Acid Extraction

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Graphical abstract

Three fluorinated hexane, perfluorohexane (C_6F_{14}), 1H-perfluorohexane ($C_6F_{13}H$) and 1H, 6H-perfluorohexane ($C_6F_{12}H_2$), were evaluated as diluents for synergic effect on extraction capability of 1H,1H,2H,2H-Perfluorooctan-1-ol by the way of experimental and computational investigation. Based on extraction experiments, C_6F_{14} showed obvious antagonistic effect because of its hydrophobic nature, while the synergistic effect of $C_6F_{12}H_2$ was better than that of $C_6F_{13}H$. Possible synergistic mechanism was proposed.

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