

# Exploring the Formation of Polymers with Anti-Amyloid Properties within the 2'3'-Dihydroxyflavone Autoxidation Process

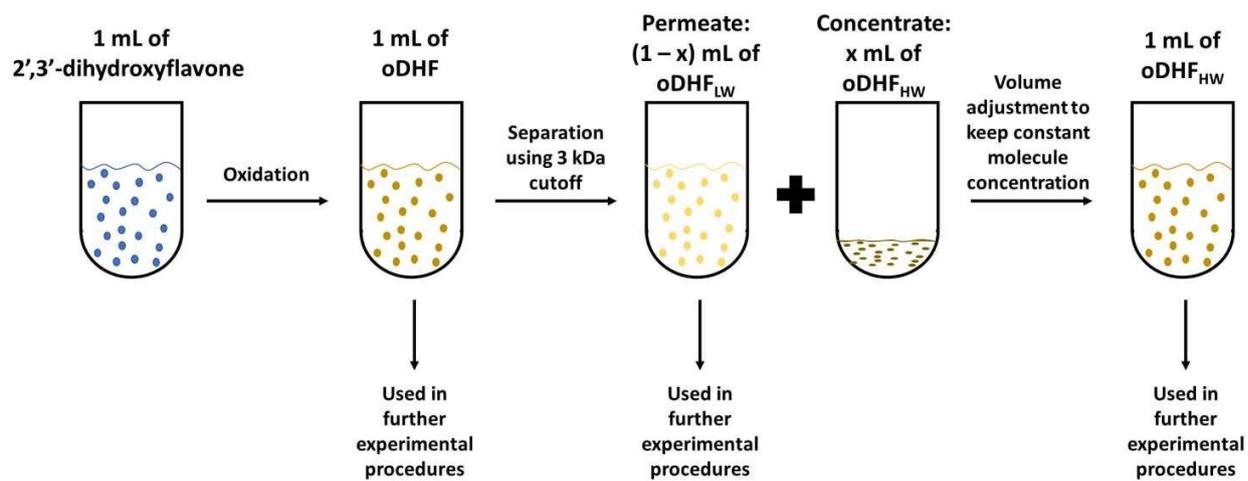
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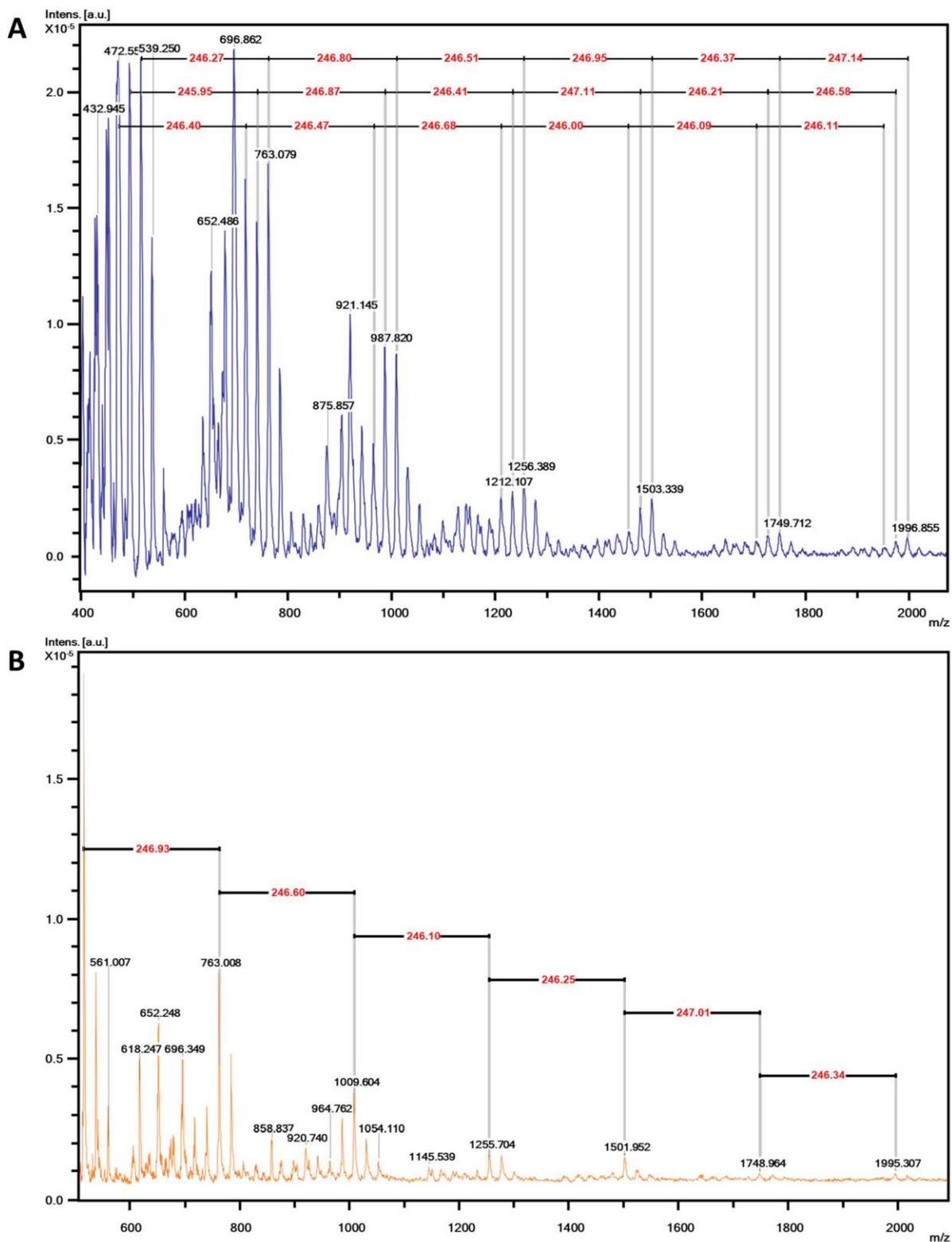
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Vytautas Smirnovas

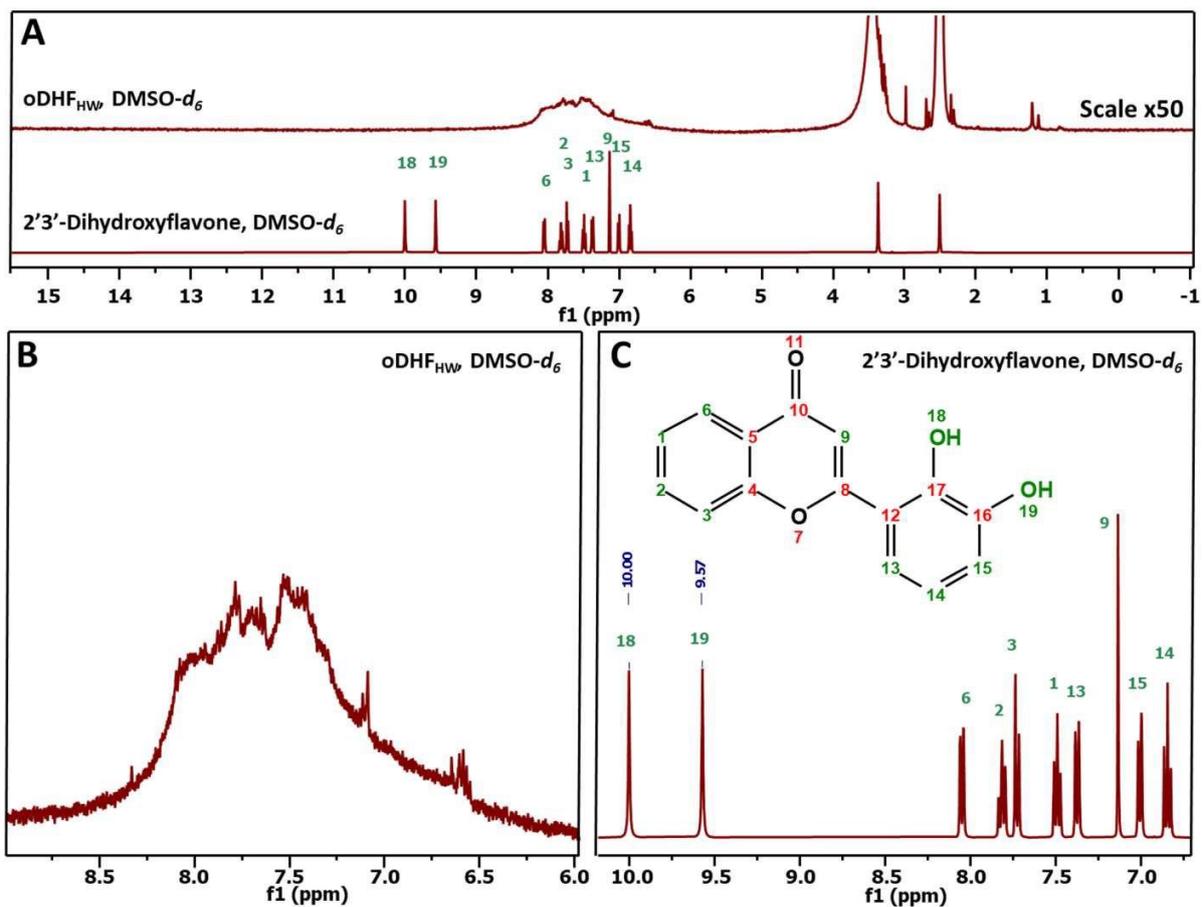
Vytautas@smirnovas.info



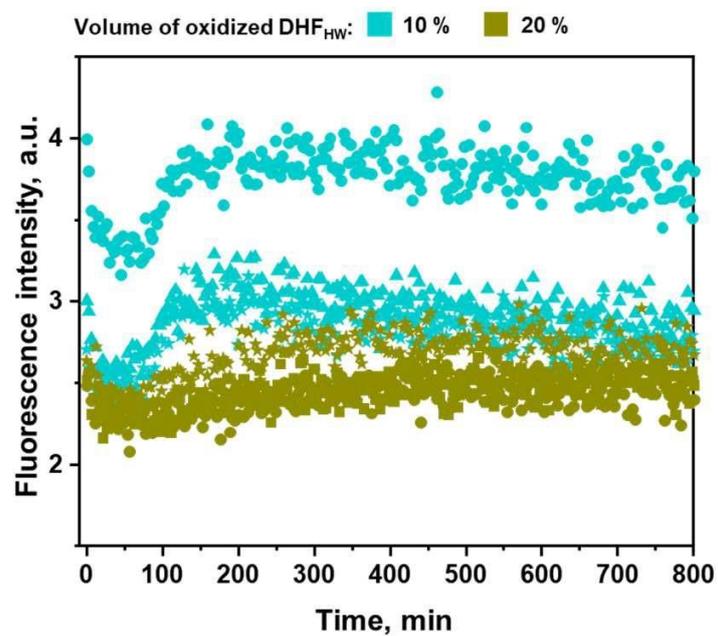
**Figure S1.** Oxidation of 2',3'-dihydroxyflavone and the separation procedure of the oxidation mixture.



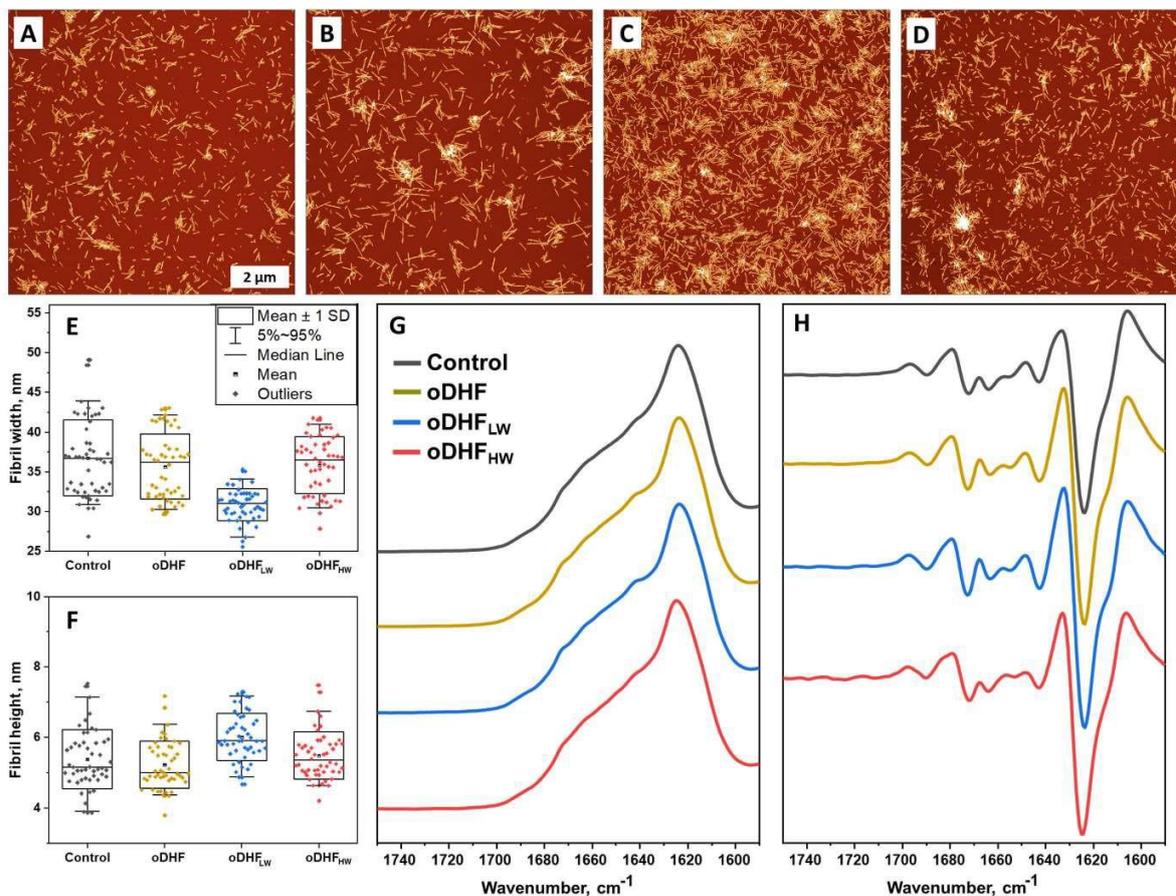
**Figure S2.** MALDI-TOF spectrum of oDHF<sub>HW</sub> prepared using SA (A) and 2,5-DHB (B) as a MALDI matrix material.



**Figure S3.** The  $^1\text{H}$  NMR spectra of oDHF<sub>HW</sub> and 2'3'-dihydroxyflavone recorded in DMSO-*d*<sub>6</sub> (A). Aromatic region (9.0 - 6.0 ppm) of oDHF<sub>HW</sub> (B) and the zoomed spectra (10.5 – 6.5 ppm) of 2'3'-dihydroxyflavone aromatic and hydroxyl groups region.



**Figure S4.** The kinetic curves of 1  $\mu\text{M}$   $\text{A}\beta$  aggregation with 10 % and 20 % of  $\text{oDHF}_{\text{HW}}$ .



**Figure S5.** Atomic force microscopy (AFM) images of aSyn without (A) and with oDHF (B), oDHF<sub>LW</sub> (C) and oDHF<sub>HW</sub> (D). The fibril height (E) and width (F) distribution, where box plots indicate mean  $\pm$  SD and error bars are in the 5% - 95% range ( $n = 50$ ). The FTIR spectra of aSyn fibrils formed with or without inhibitors (G) and their second derivatives (H).