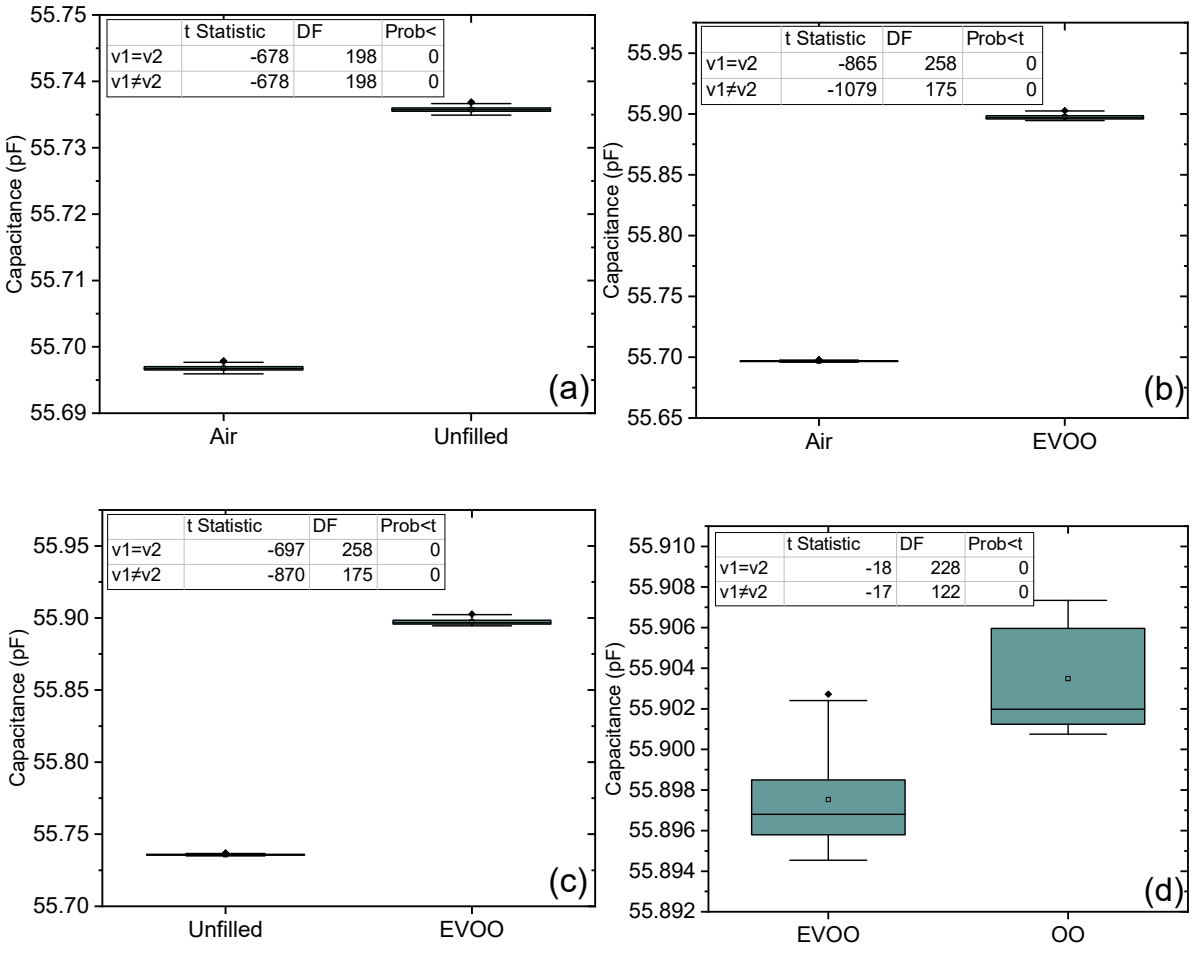
Supporting Information (SI)



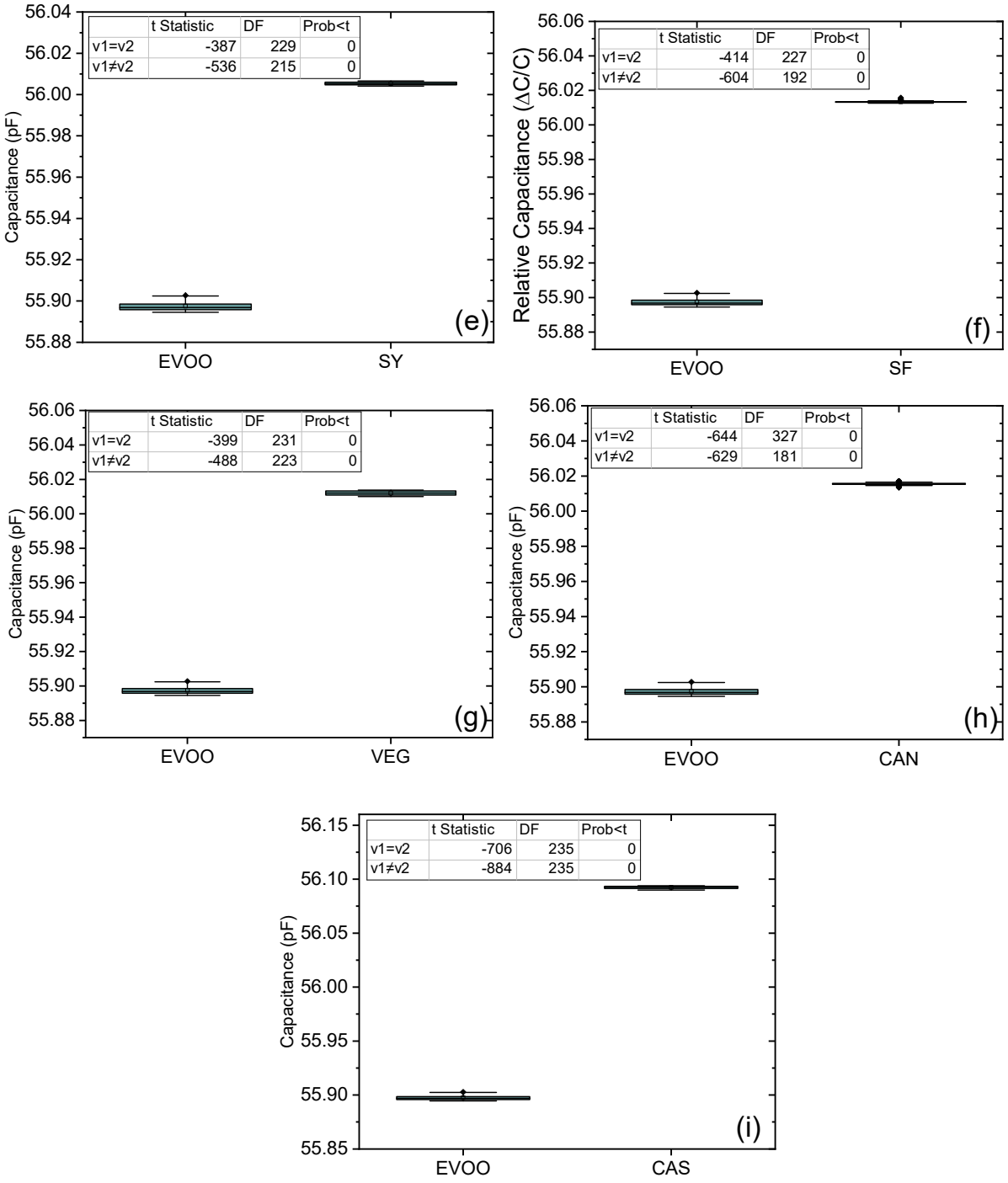


Figure S1. Two t-test plot and statistics of classification of capacitance recordings: (**a**) air and unfilled, (**b**) air and EVOO, (**c**) unfilled and EVOO, (**d**) EVOO and OO, (**e**) EVOO and SOY, (**f**) EVOO and SF, (**g**) EVOO and VEG, (**h**) EVOO and CAN and (**i**) EVOO and CAS. Extra virgin olive oil-EVOO, olive oil-OO, soybean oil-SOY, sunflower oil-SF, vegetable oil-VEG, canola oil-CAN and castor oil-CAS.

The hypothesis used in this study is as follows: Null hypothesis assumes the two population variances v1 and v2, to be equal, while the alternative hypothesis assumes v1 and v2 to be different. Her v1 and v2 represent the variance of any two 100% pure oils.

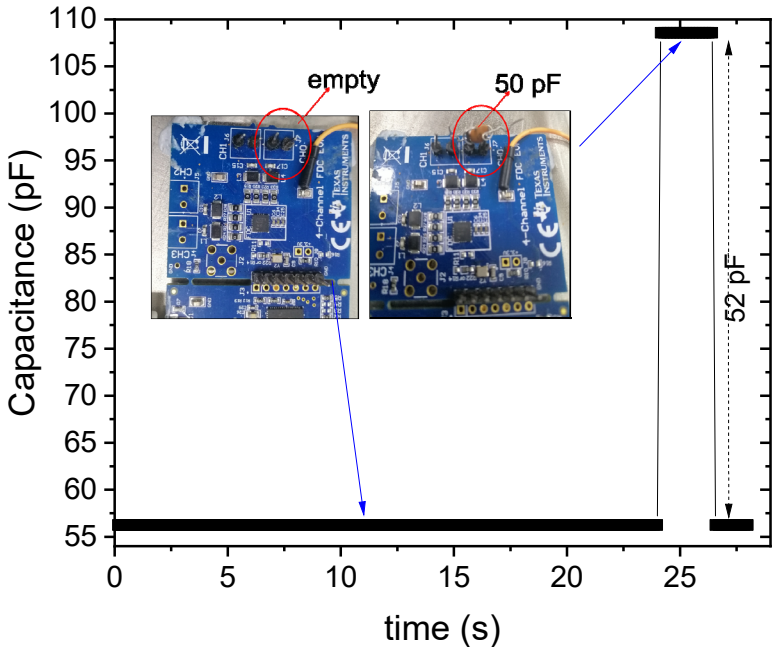


Figure S2. Capacitance estimation of 50 pF standard capacitor using FDC2214EVM.

It is to be noted that FDC2214 has an inherent onboard capacitance of ~55 pF. The addition of 50 pF standard ceramic capacitor raises the capacitance by ~52 pF to about 102 pF, which is close to its absolute capacitance.