Author's Response about Reviewer(s)' Comments

Thank you for pointing this out, our corrections are as follows.

Reviwer 1

**Introduction**

Q: I found the introduction with a lot of scattered information. I think the flow and train of thoughtsshould be improved.

A: →We have improved it to explain the current situation in a straightforward manner and added a note on the current issues related to oleoforms and the significance of this study.

**Materials and Methods**

Q: Lines 128-130: you applied a thermal program which starts at 80 °C, can you explain why? If you want to check the melting of the BBB crystals in the oleofoam, I expect the program to start at 20-25°C, then go to 80 °C, back to 20-25 °C, and finally heating again if you want to check the melting ofthe crystals obtain during the DSC cooling.

A: →Fig.1 shows the preparation of oleogel.

We measured DSC as you say, so we have added a note in DSC m&m about measurement programs as shown Line 143-144.

Line 133: what method did you use to determine the melting and crystallization enthalpies? The

tangent method used by many DSC software works ok if the shape of the peaks is sharp and there are no other thermals events overlapped on the main peak.

A:→As you indicated, I used the tangent method and measured it using DSC software (TA 7000, Hitachi High-Tech Science Corp., Japan). I added it to the m&m of DSC in Line146-150.

Q: Lines 135-152: I would merge the two paragraphs and add the method used to count the bubbles (what software and the parameters used)

A: →The software used was the analysis software included with the VHX-6000; digital microscope. Bright-field images were taken at a magnification of 20x, binarized using image brightness, and image analysis was performed to exclude unwanted objects and separate overlapping objects by specifying a diameter of 0-200 um and a circular shape for the particle shape.

Q: Line 157: did you observe any slippering of the sample on the plates? If the plates used are smooth, some slippering can occur at high shear rate (like the one used for viscosity in line 162). Sandpaper glued to the plates or hatched plates are usually a good option to avoid sample slippering.

A: →We will definitely try this method in the future. Slipping has not been confirmed in these samples.

**Result and Discussion**

Q: In general, this section lacks discussion. It is mainly descriptive with few connections to the

literature.

A: → The discussion has been revised to include a perspective on the composition of raw materials for BBB and olive oil, and to cite new research examples.

Q: Lines 176-177: can you specify the composition of BBB in the materials and methods section to support your claim? The one given by the supplier would be sufficient for this scope.

A: →We have added the composition of BBB and olive oil in m&m as shown Line 113-115.

Q: Line 190-191: this can be moved to materials and methods section, adding more details on the method (bubbles were manually measured using the scale bar as reference, or specify the software used)

A: → These sentences were move to m&m as shown Line 169-171.

Q: Lines 320-321: your system is made only with oil and BBB, which are non-volatile. What is the clear liquid that drains out from you oleofoam which you said it can evaporate?

A: → Fixed as shown Line 366. What I mean was a collapse of bubbles.

Reviewer: 2

Comments to the Author

Q:　Reference style is not that required by the Journal. No number before each reference and in alphabetic order.

A:　 → We have fixed as shown in Line 423-490.

Q:　Figure 1s a and b. Based on the caption figure 1a is a melting curve but it reports exothermic signals. Please check

A: → We have fixed.

Q：Olive oil is used. Based on the regulation olive oil is commercially a combination of refined and virgin olive oil. It is very strange to see the purity of this oil. Please provide the composition since the oil characteristics is an important point to consider dealing with oleogels.

A: →The composition of olive oil was added as shown in Table 1.

Q:　Line 122 explain in the text the meaning of Tf. If I’m correct it is Tm+5 °C reported in the figure 1.

A: →We have added an explanation to the text in Line136.

Q:　The statistical analysis indicating the number of replicates and the method to evaluate differences among samples is lacking in m&m.

A: →Unfortunately, no statistical analysis was performed. However, as described in Lines 131, oleoforms were tested three times to confirm reproducibility. In addition, in DSC analysis and Bubble size, we have added a note in each m&m that values are given as means ± SD from triplicate measurements in Line 149-150.

Q: It is claimed in the manuscript that Tc refers to the β form of BBB and Tm to the α form. Can you demonstrate this statement? Can you demonstrate the polymorphic forms present in the system?

A: → First, there was a typographical error, i.e., Tmβ and Tcα are the correct entries. So, we have fixed. The reason for this is that the DSC and XRD results shown in Fig. 3 and Fig. 6 in our previous study (J. Oleo. Sci. 2021; 70: 1381–1390. (<https://doi.org/10.5650/jos.ess21119>). On these results, we confirmed that BBB can form ɑ-form and β form crystals. And in the DSC method described in this paper, the sample is gradually heated up to 80°C from 25 °C. So, we believe that β-form crystals are formed. Furthermore, we believe that β-form crystals are formed because the sample is left at 80°C for 10 minutes and then quenched at once in order to fully cancel the temperature history as described Line 143-146.

Q: Being the cooling rapid (10°C), I suppose that the alfa polymorphic formed during cooling. Please explain better.

A：→ We believe that the ɑ-type is made in priority as you say. The details are the same as in the answer to the above question. There was an error in the text. We have fixed as shown Line 194-196.

Q: Line 215 The results of overrun are reported later. So please remove here the sentence.

A: → We have Fixed.

Q: The same at line 266 referring to rheological properties (the results are reported later).

A: → We have Fixed.

That is all.

Thanks.

Kazuki Matsuo.