Lane, KE, Zhou, Q, Robinson, S and Li, W

The composition and oxidative stability of vegetarian omega-3 algal oil nanoemulsions suitable for functional food enrichment

Article

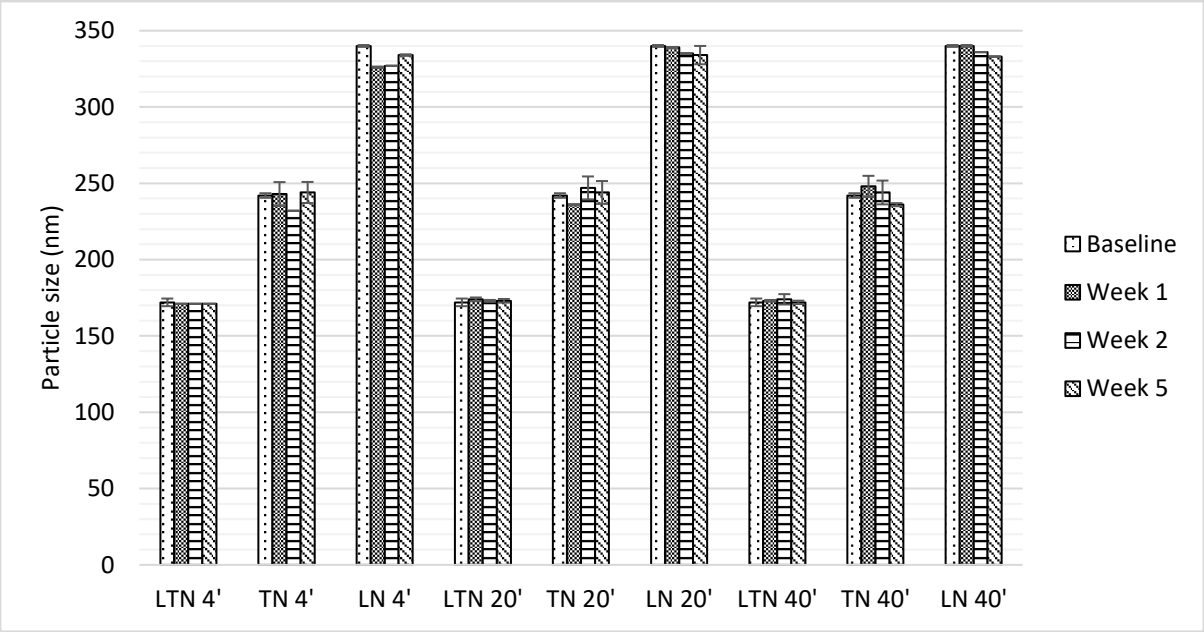

Figure 1. Mean droplet size distributions of nanoemulsion stabilized with emulsifiers Lecithin (LN), Tween 40 (TN) and Lecithin/Tween40 (LTN) storage at 4, 20 and 40°C over 5-weeks

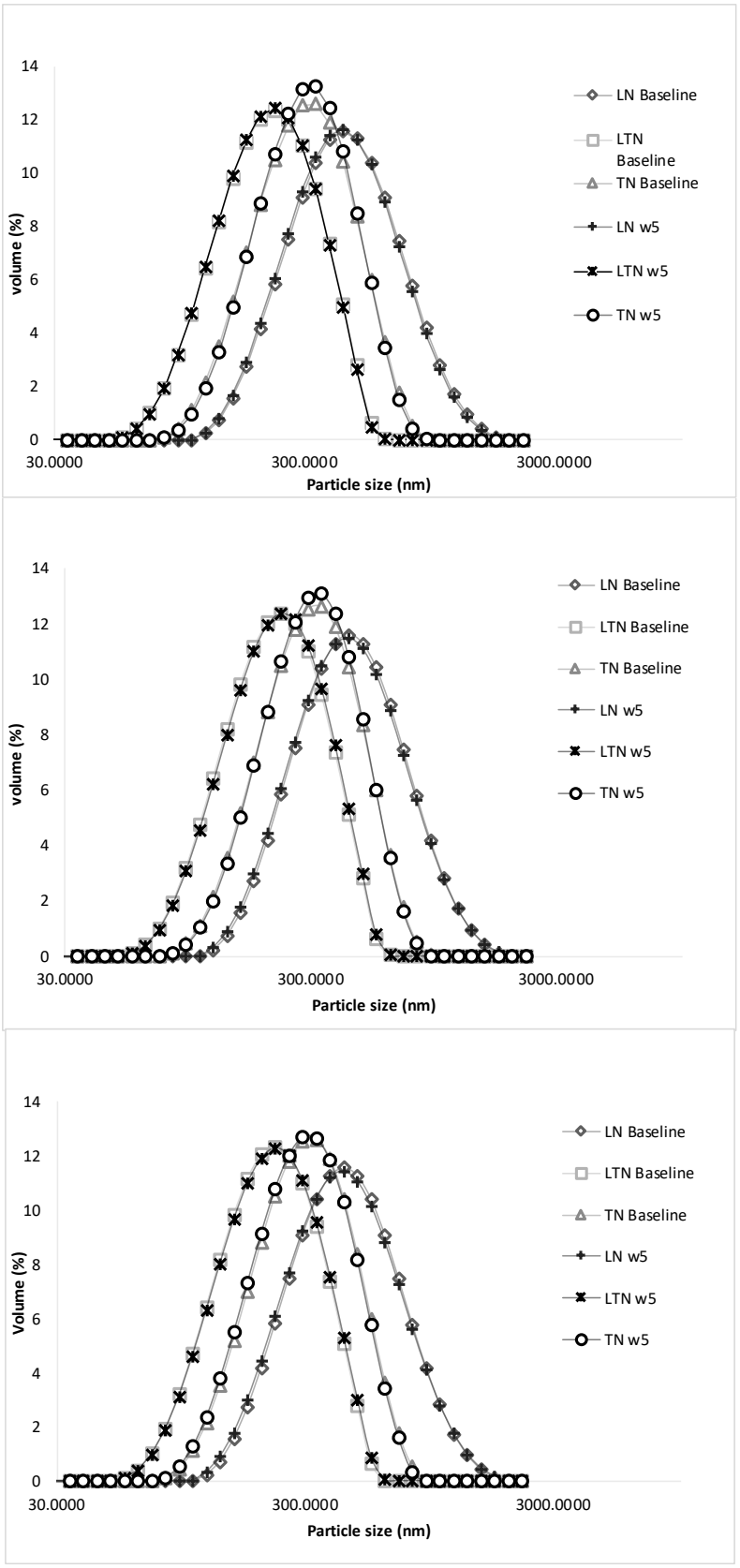

Figure 2 – Droplet size ranges for algal oil nanoemulsions Lecithin (LN), Tween 40 (TN), Lecithin/Tween 40 (LTN) at baseline and after 5 weeks of storage 4°C (top), 20°C (middle), 40°C (bottom)

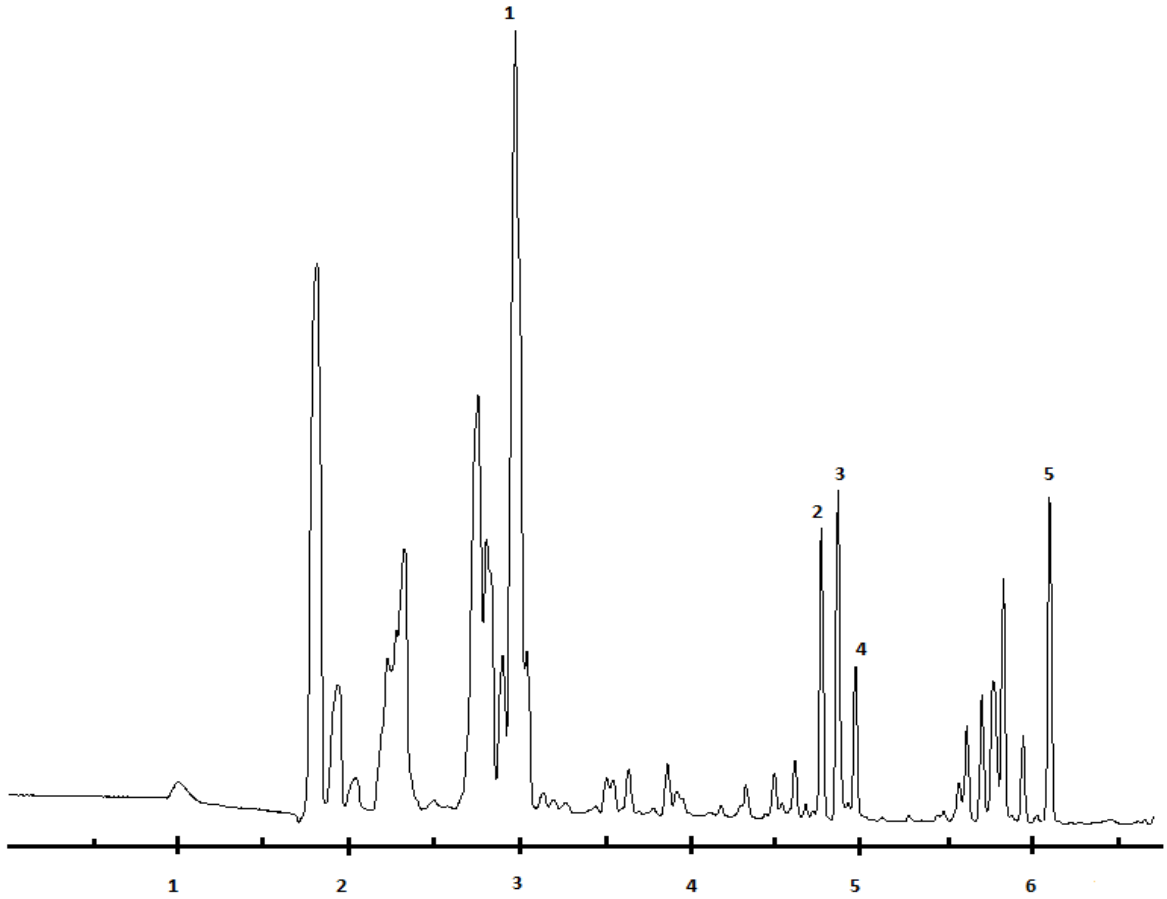

Figure 3. HS- Gas chromatogram of 5 identified oxidised compounds produced by algal oil nanoemulsion (1. Propanal; 2. 2-ethyl-furan; 3. Propan-3-ol; 4. Valeraldehyde; 5. Hexanal)

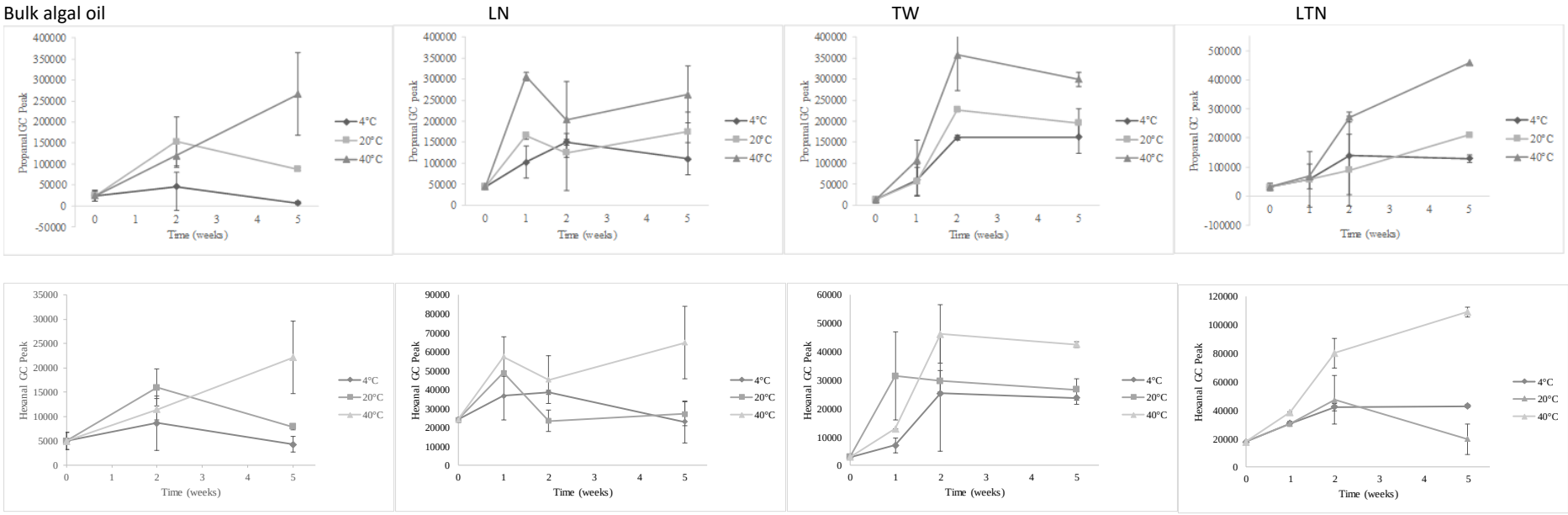

Figure 4. Propanal (top) and hexanal (bottom) development in bulk algal oil and nanoemulsions stabilized with emulsifiers Lecithin (LN), Tween 40 (TN) and lecithin/Tween 40 (LTN) stored for 5 weeks at 4, 20 and 40°C