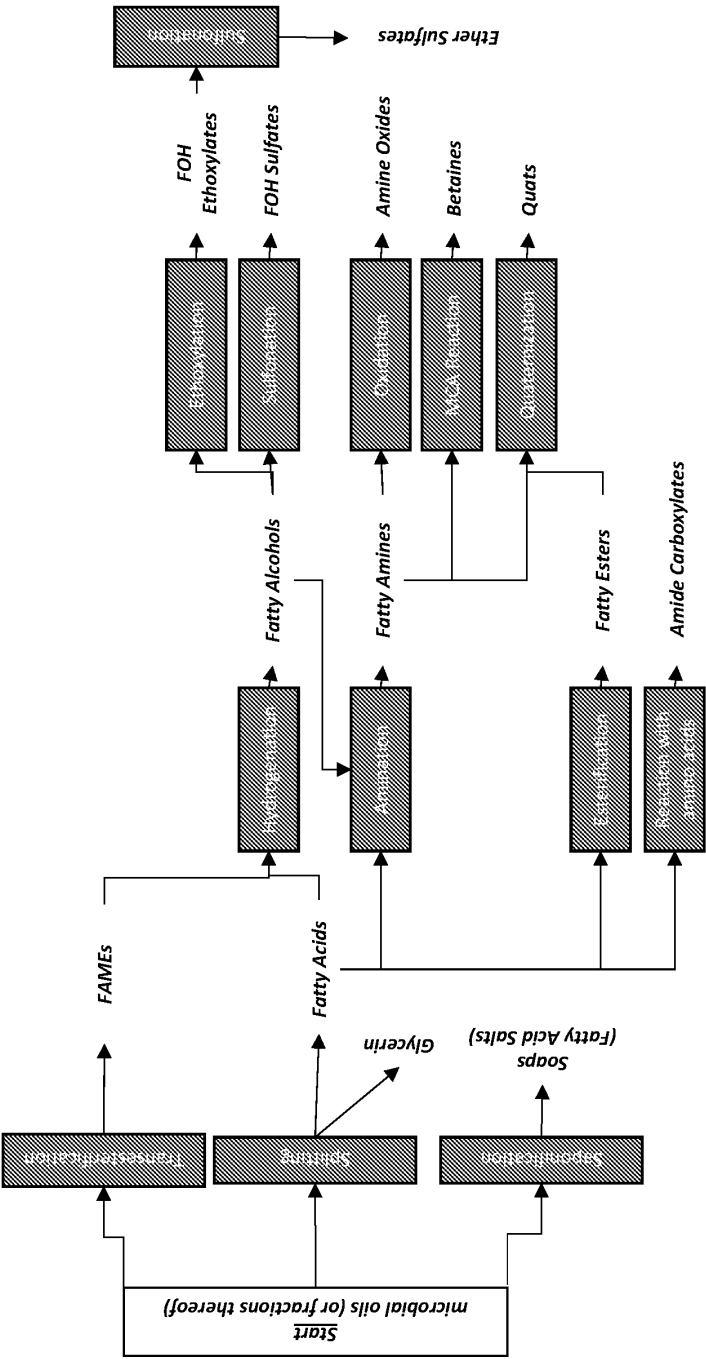


FIG. 1



- Anionic: (soaps, amide carboxylates, FOH sulfates, ether sulfates) [Excellent at lifting dirt and grime, performs poorly in oil-removal applications; generally harsh]
- Cationic: (FAMES, fatty acids, fatty alcohols, fatty amines, fatty esters, quats) Used primarily in softening and anti-static applications, such as conditioner
- Non-ionic: (FOH ethoxylates) Milder surfactants with excellent oil lifting properties, also function as emulsifiers and stabilizers
- Amphoteric: (amine oxides, betaines) Generally used as a co-surfactant to boost foaming properties; extremely mild, but poor cleansing ability

FIG. 2A

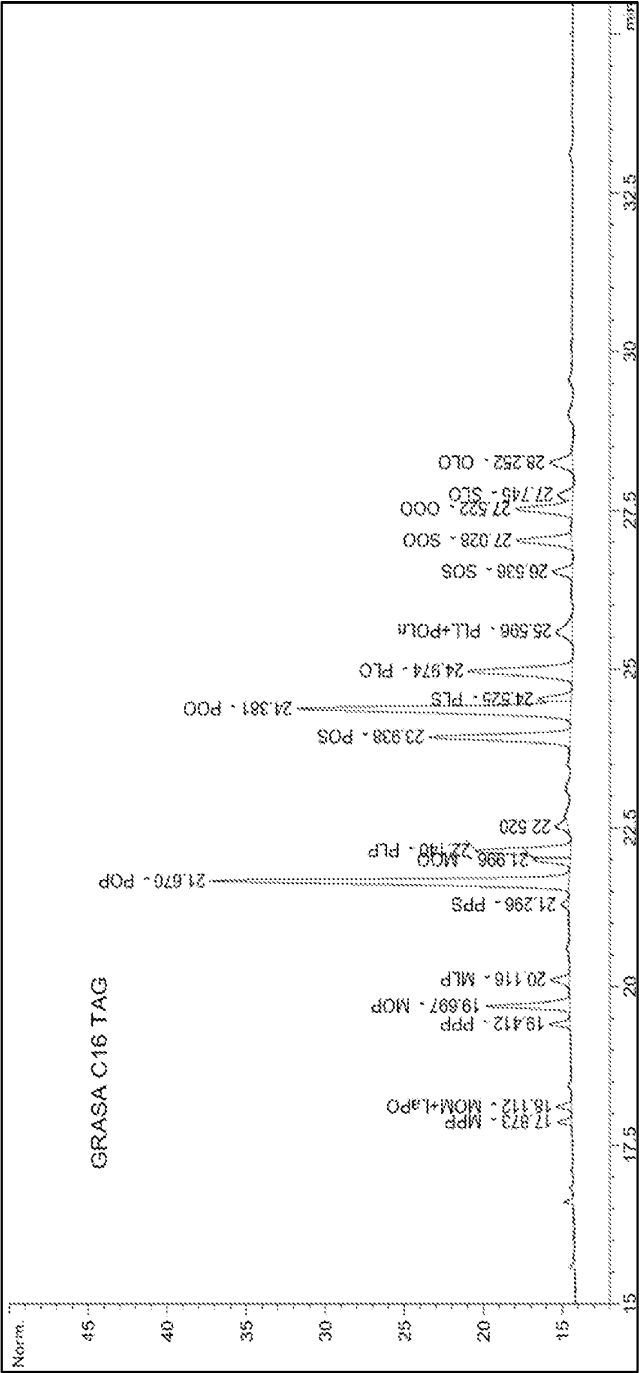


FIG. 2B

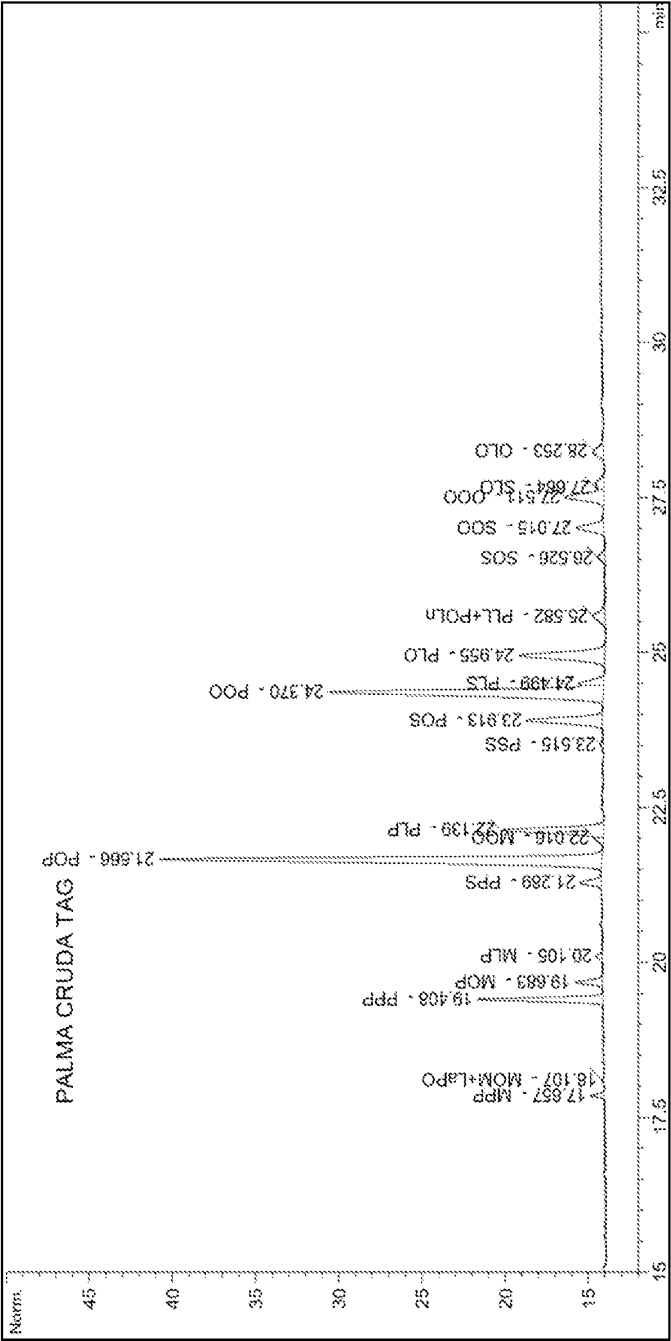


FIG. 2C

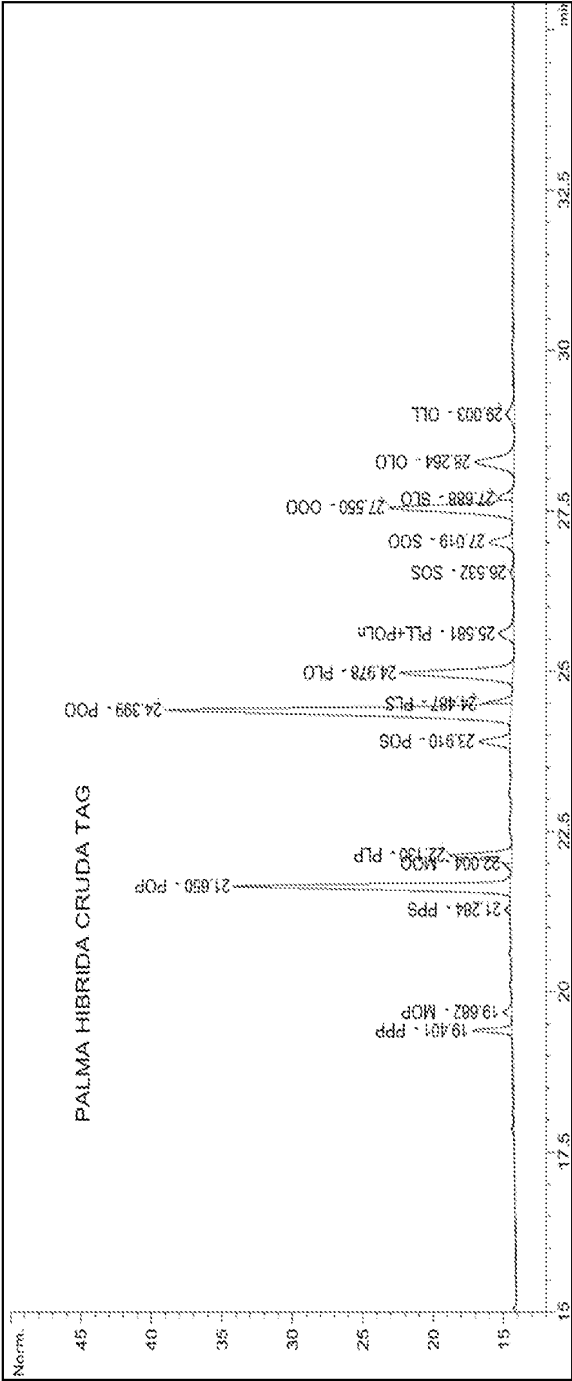


FIG. 3

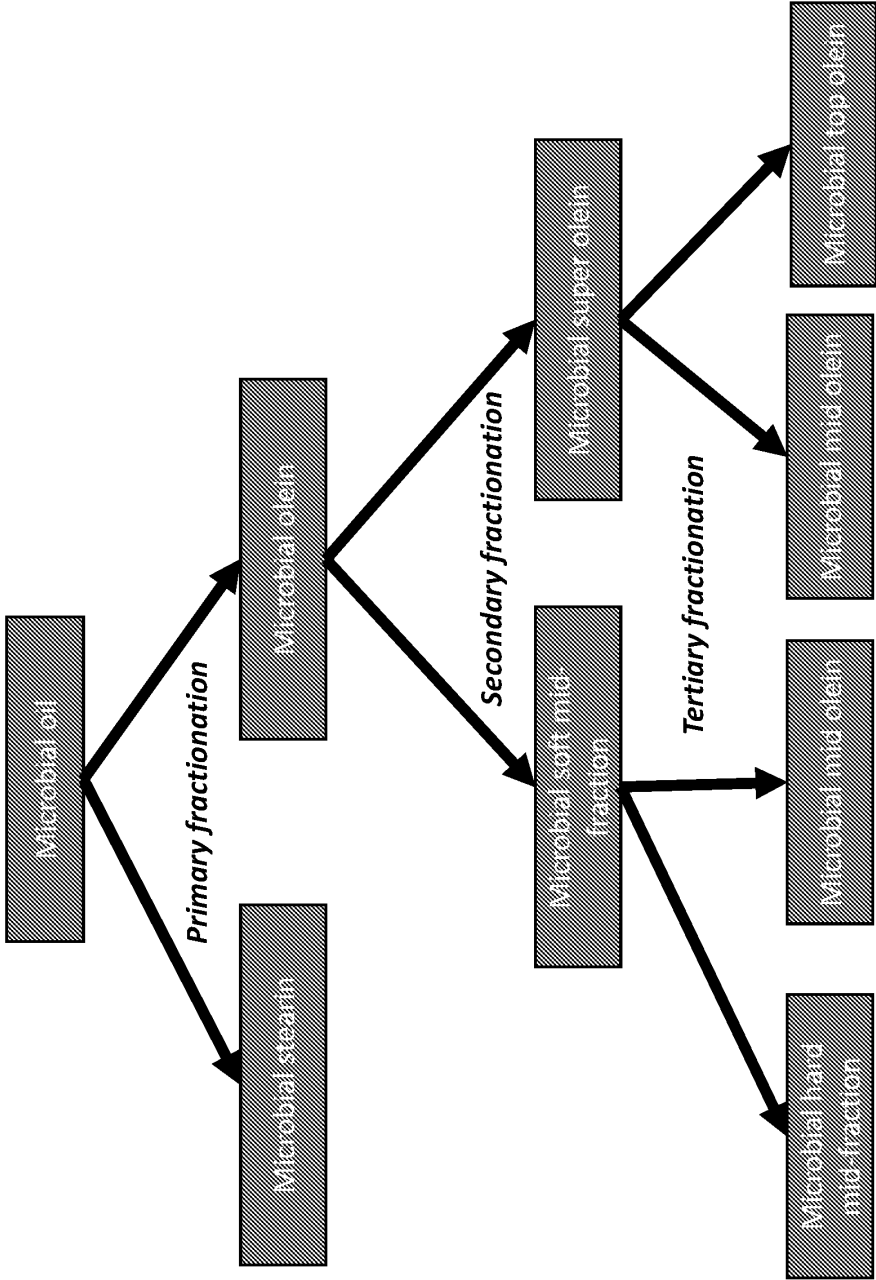


FIG. 4C

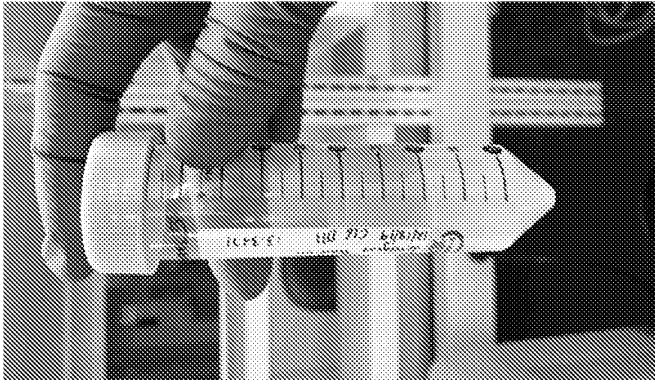


FIG. 4B

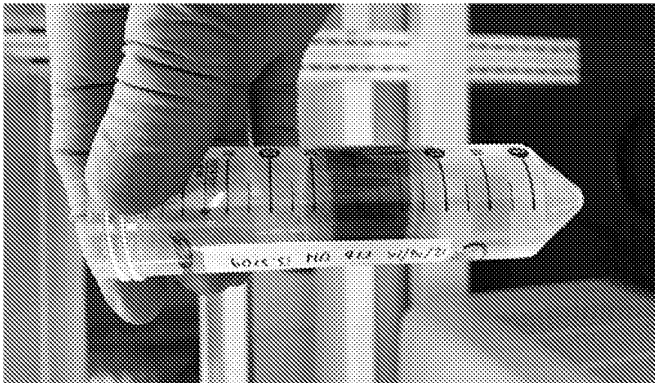
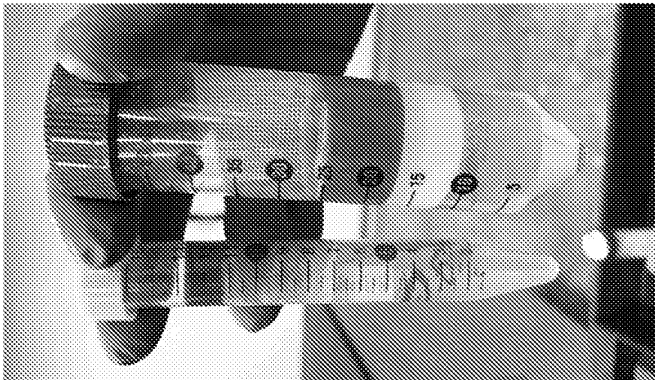


FIG. 4A



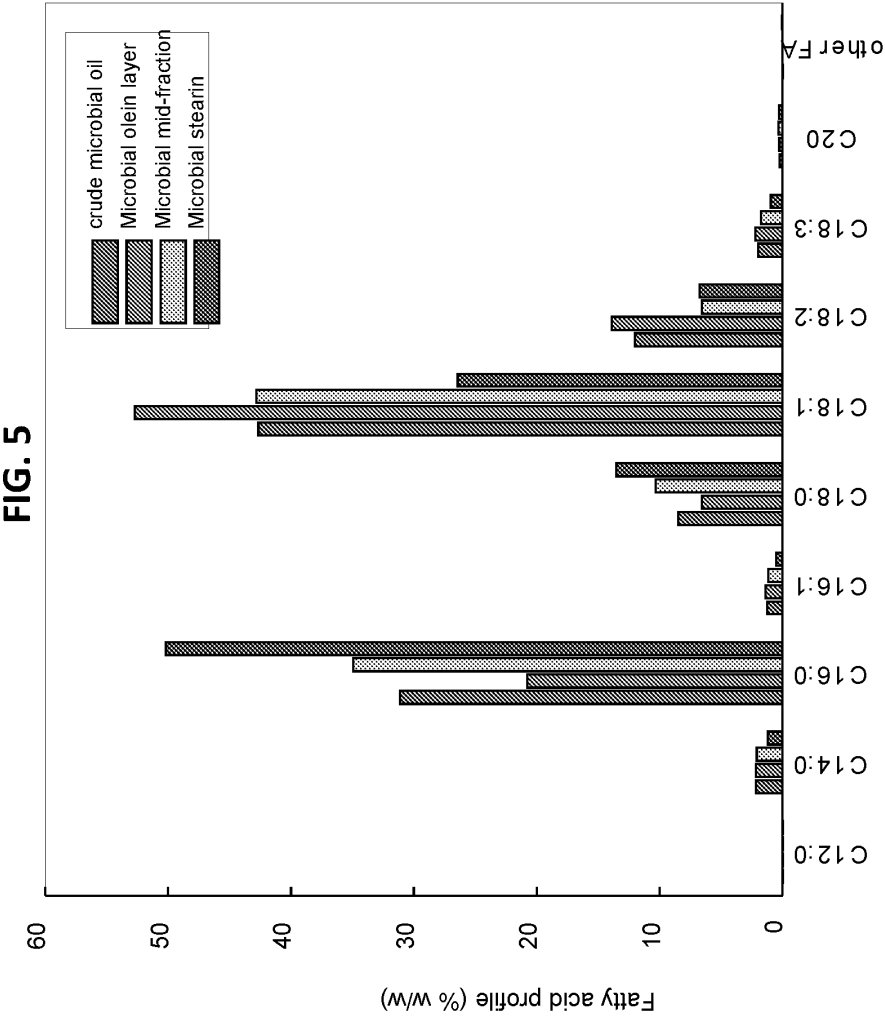


FIG. 6

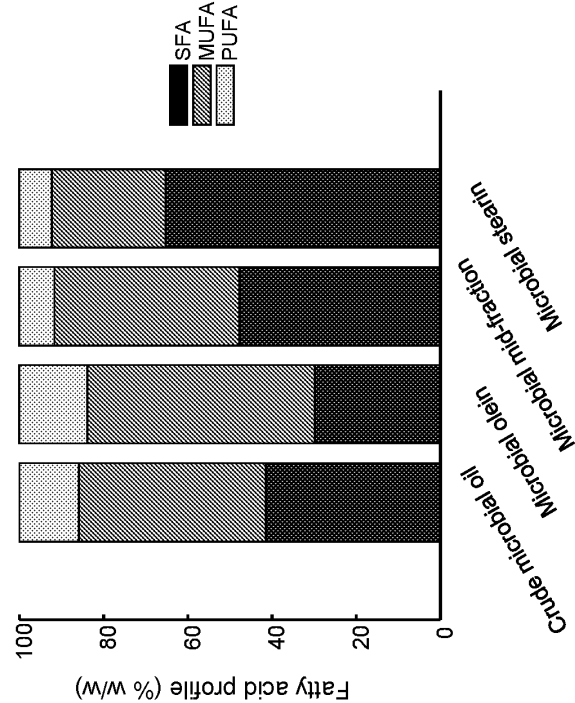


FIG. 7A

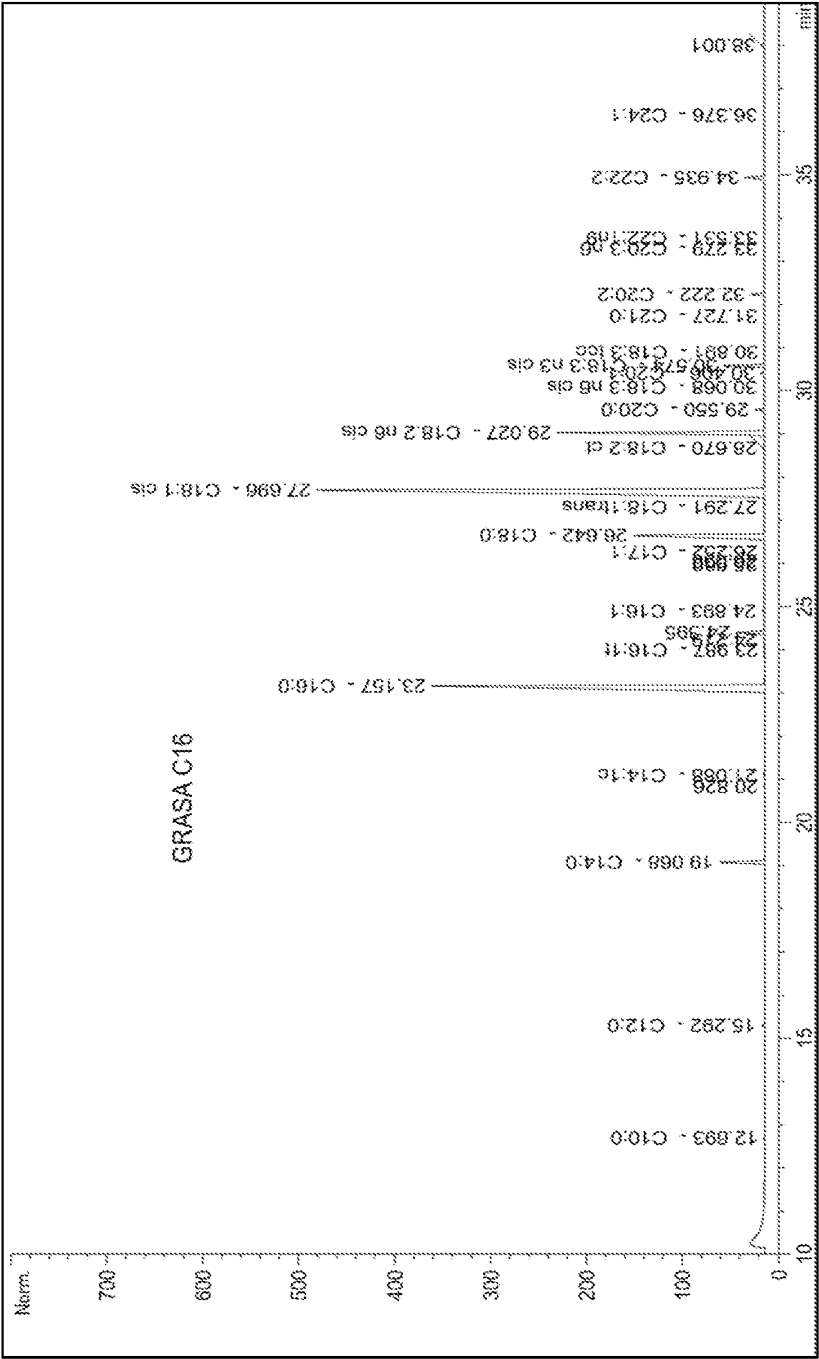


FIG. 7B

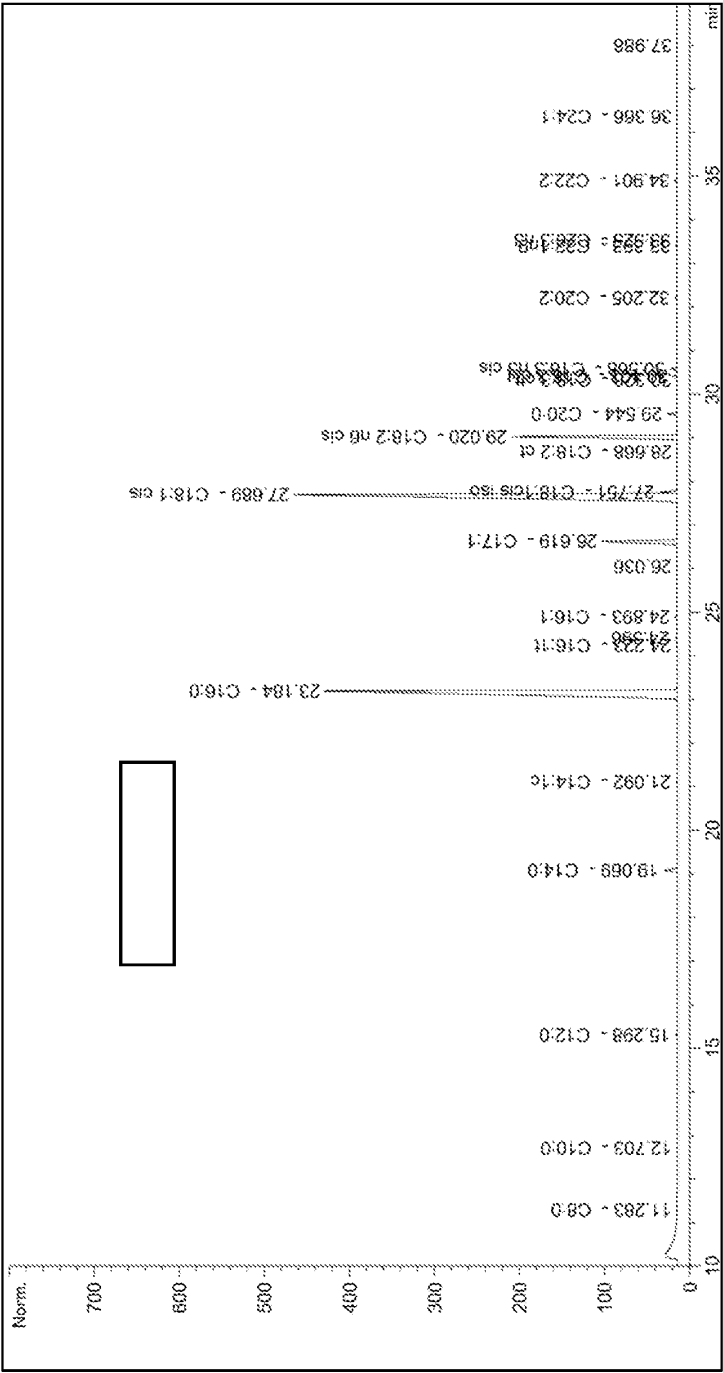


FIG. 7C

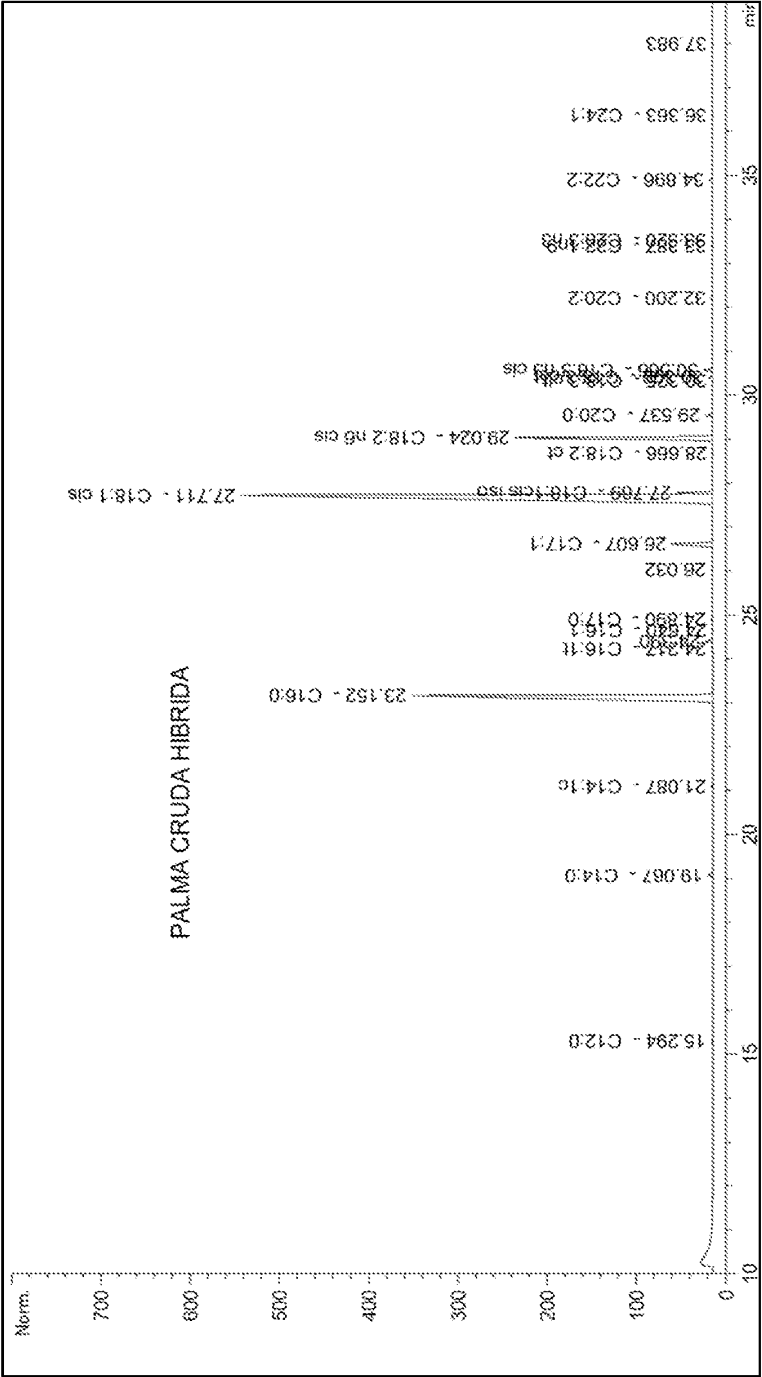


FIG. 7D

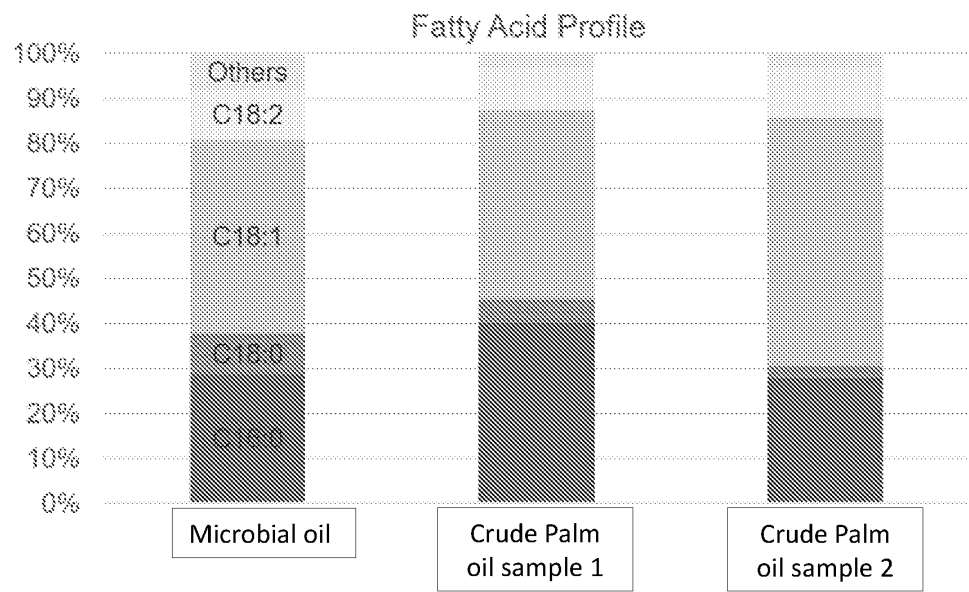


FIG. 8

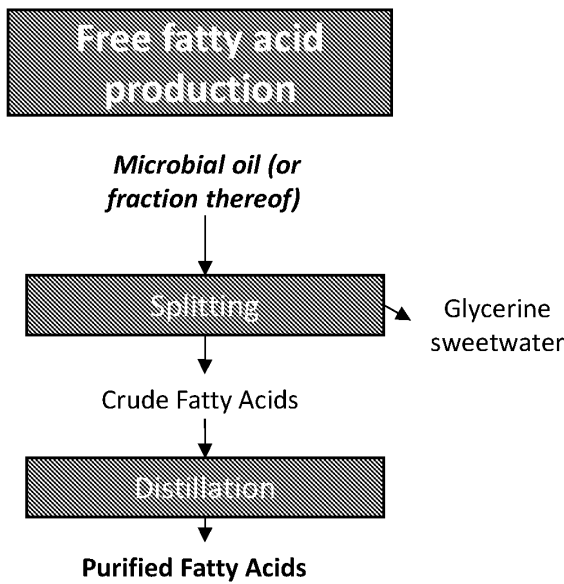


FIG. 9

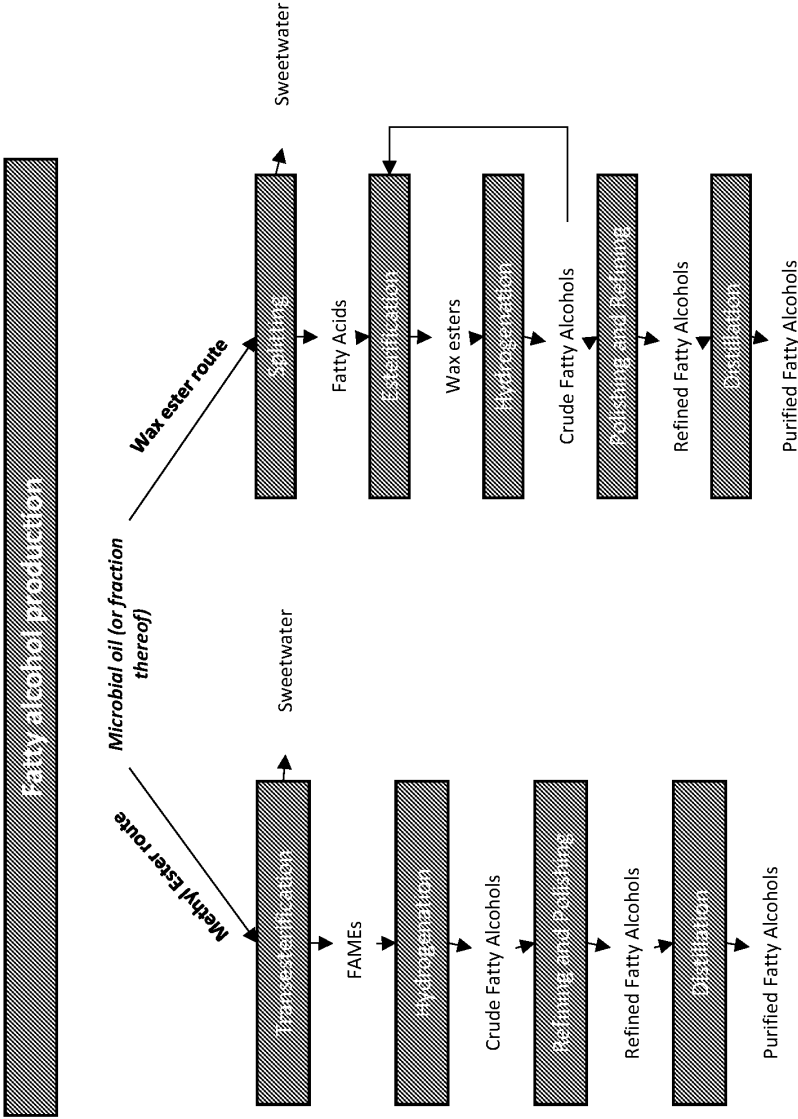


FIG. 10

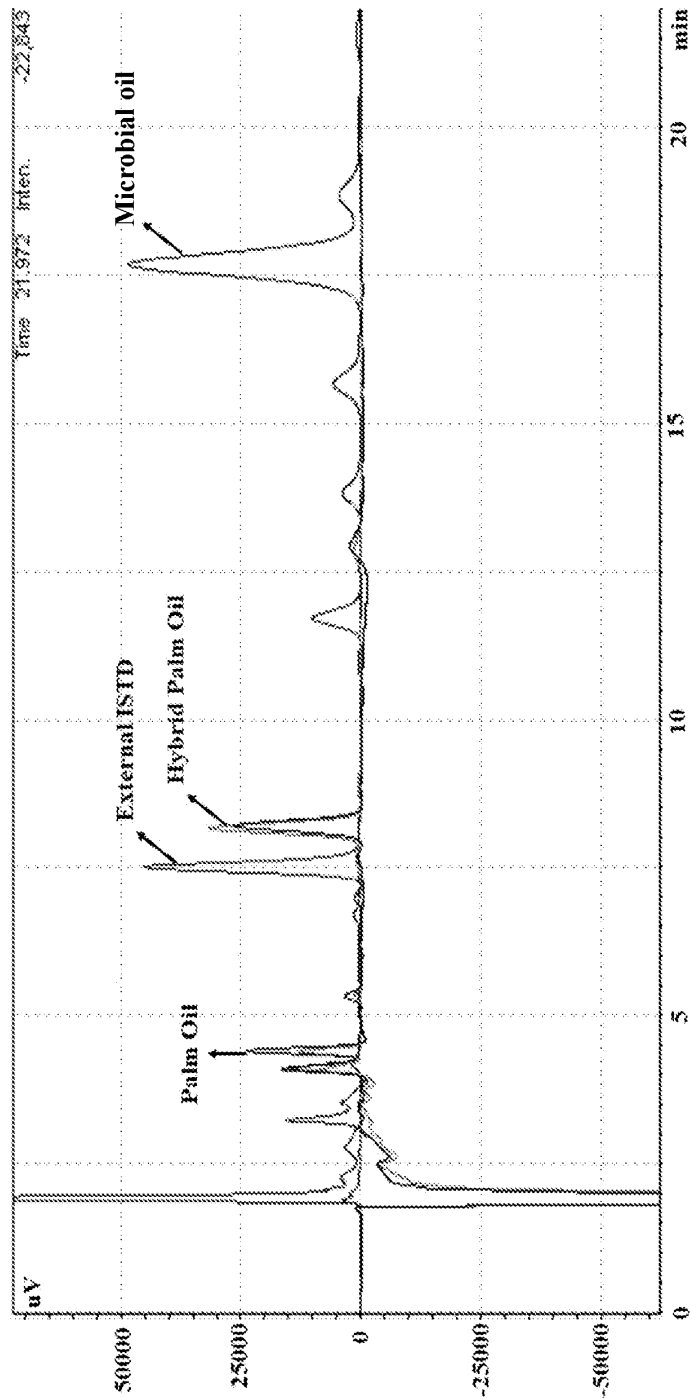


FIG. 11A

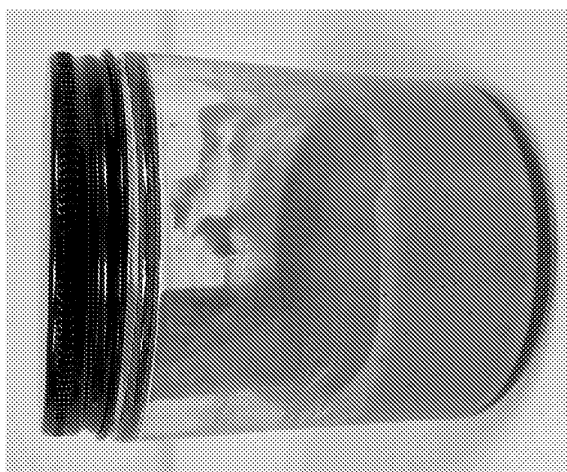


FIG. 11B

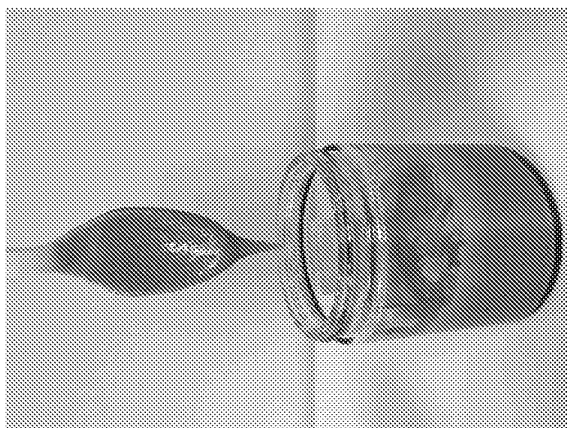


FIG. 11C

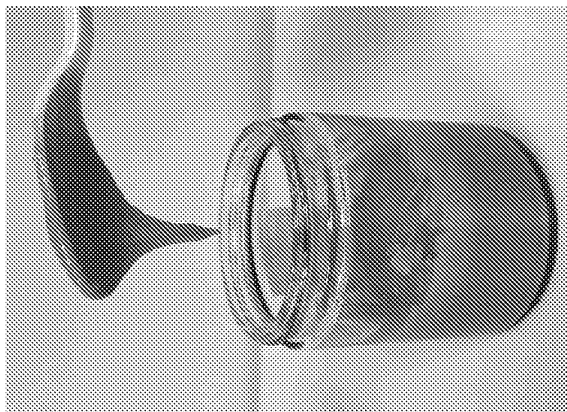


FIG. 11D

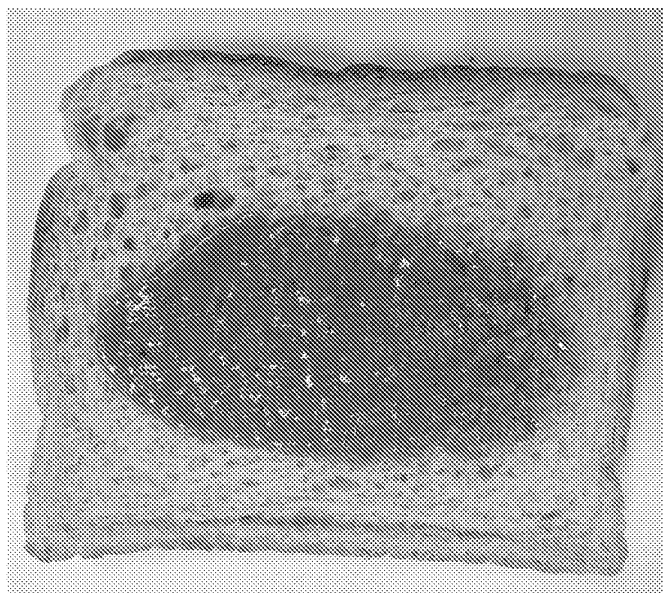


FIG. 12



FIG. 13

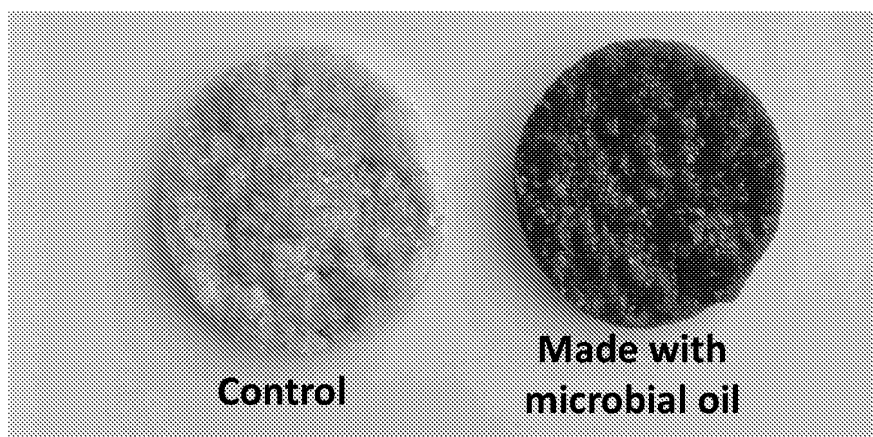


FIG. 14A



FIG. 14C



FIG. 14E

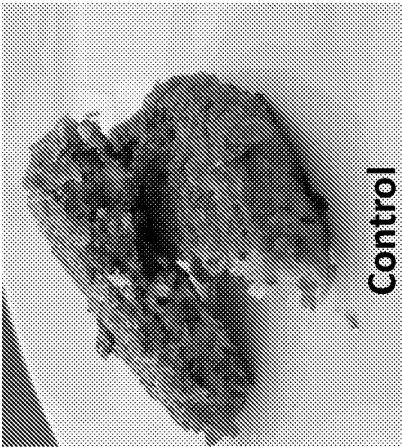


FIG. 14B

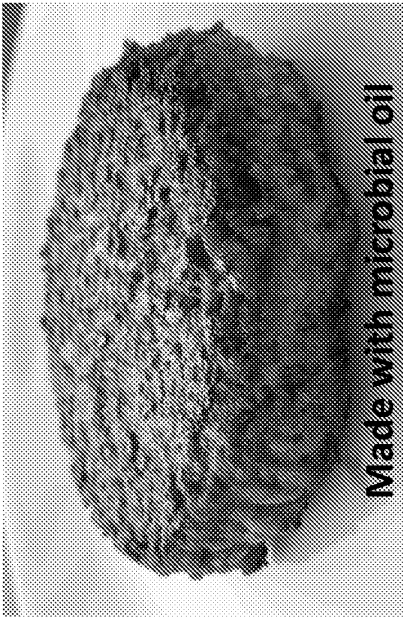


FIG. 14D

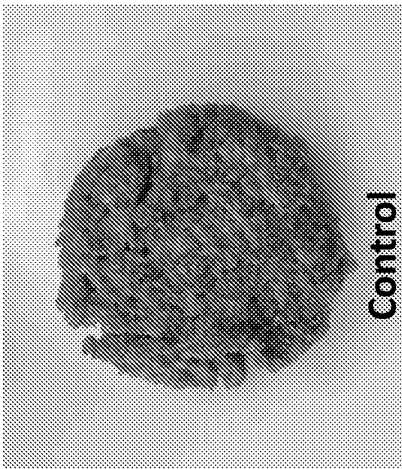


FIG. 15

