12. The method according to anyone of the foregoing claims, wherein said organic acid and carbonate are reacted at a temperature between about 130°C to about 230°C, at a pressure in a range from about 145 psi to about 950 psi inert atmosphere.
13. The method according to anyone of the foregoing claims, wherein said organic acid and carbonate are reacted at a temperature between about 160°C to about 215°C.
14. The method according to anyone of the foregoing claims, wherein said organic acid and carbonate are reacted within a time period not exceeding about 24 hours.
15. The method according to claim 14, wherein said organic acid and carbonate are reacted within a time period not exceeding about 12 hours.
16. The method according to anyone of the foregoing claims, wherein said method is able to achieve at least 45% conversion of said carboxylic acid to the ester.
17. The method according to claim 16, wherein said method is able to achieve at least 70% conversion of said carboxylic acid to the ester.
18. A method of esterification comprising: contacting an organic acid and a dialkyl-carbonate in a reaction mixture with an alcohol mediating agent, absent an extrinsic acid or a base catalyst.
19. The method according to claim 18, wherein said alcohol serves as a nucleophile that assists said reaction between said organic acid and said carbonate.
20. The method according to claim 18, wherein at least 45% of said organic acid is converted into a yield of corresponding esters.
21. The method according to claim 20, wherein said esters include either monoesters, diesters, or triesters, or a mixture containing combinations thereof.
22. The method according to claim 18, wherein said organic acid is converted into a corresponding monoester and diester in a ratio of about 95:0.5 to about 0.5:95.
23. The method according to claim 18, wherein a di-ester product is favored.
24. The method according to claim 18, wherein a CO_2 molecule is released from said reaction.
25. The method according to claim 18, wherein said reaction is performed in either a batch or a continuous process.
26. The method according to claim 18, wherein said alcohol is either saturated, unsaturated, aromatic, or a mixture of different alcohol species.
27. The method according to claim 18, wherein said carbonate is at least one: DMC, DEC, DBC, and DPC.
~~28. An ester compound formed from a reaction of an organic acid with a carbonate in an alcohol-containing solvent without the presence of either an extrinsic acid or base catalyst according to anyone of the foregoing claims.~~