Supplementary Information

Sodium Methoxide Catalysed One-Pot Glycidol Synthesis via Trans-esterification between Glycerol and Dimethyl Carbonate

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Gas Chromatogram:

A good separation peak is achieved at the given conditions for all components in the reaction mixture, see Figure S1.

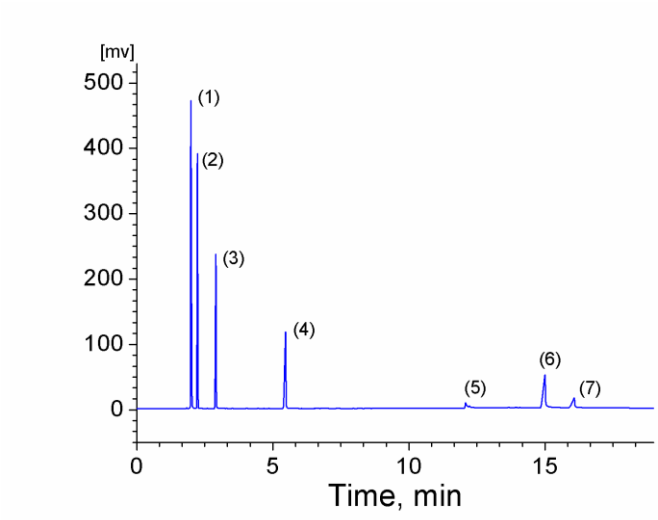

Figure S1. The gas chromatogram of the reaction mixture for synthesis of GD from GL and DMC using CH_3ONa as catalyst: (1) methanol; (2) DMC; (3) n-Butanol; (4) GD; (5) GL; (6) tetraethylene glycol; (7) GC.

Calibration Curves: The data is provided below in table S1, for effect of catalyst amount on the GL conversion and yields of GD and GC. The calibration curve is presented in Figure S2.

Catalyst amount of sodium methoxide(54.02g/mol)

Glycerol (92.08g/mol), =2/92.08 = 0.02172024

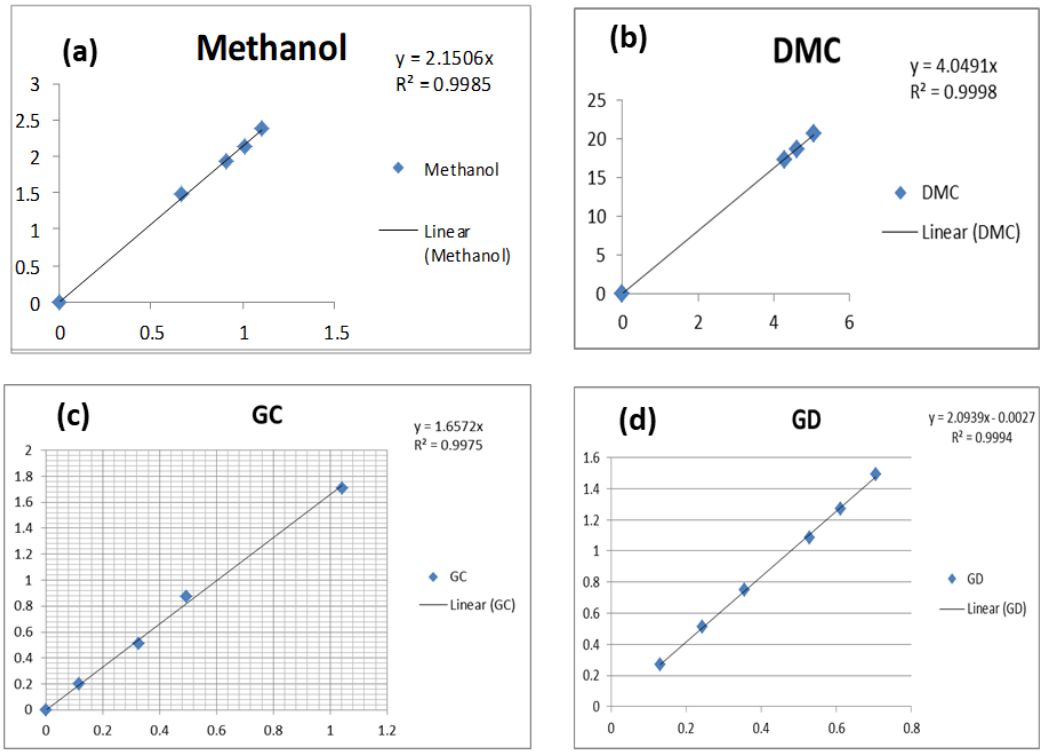

Figure S2: Calibration Curve (a) Methanol, (b) DMC, (c) GC and (d) GD

Table S1: Data for the effect of catalyst amount on the GL conversion and yields of GD and GC

Catalyst %w	Cat. g	Cat. mol	Mol%	Conversion % of GL	Yield of GD %	Yield of GC %
1	0.02	0.00037	1.705	90	38	52
2	0.04	0.00074	3.410	98	70	28
3	0.06	0.00111	5.115	99	75	24
4	0.08	0.00148	6.820	99	70	29
5	0.10	0.00185	8.525	99	84	15