

**Table 3** Fractions obtained from **Crude A** by QCC

Fraction	Weight (g)	Physical characteristic
A1	12.240	yellow solid
A2	18.467	yellow viscous liquid
A3	0.670	a mixture of a white solid and yellow viscous liquid
A4	3.760	a mixture of a white solid and yellow viscous liquid
A5	2.146	a mixture of a yellow solid and deep yellow viscous liquid
A6	16.860	brown viscous liquid

**Table 4** Fractions obtained from **Crude B1** by CC

Fraction	Weight (g)	Physical characteristic
B1A	0.209	yellow viscous liquid
B1B	0.205	a mixture of a yellow solid and yellow viscous liquid
B1C	0.127	a mixture of a yellow solid and yellow viscous liquid
B1D	0.236	a mixture of a yellow solid and yellow viscous liquid
B1E	0.271	a mixture of a white solid and yellow viscous liquid
B1F	0.064	a mixture of a white solid and yellow viscous liquid
B1G	0.105	a mixture of a white solid and yellow viscous liquid
B1H	0.265	yellow viscous liquid
B1I	0.362	yellow viscous liquid
B1J	0.712	yellow viscous liquid
B1K	1.378	yellow viscous liquid
B1L	0.136	deep yellow viscous liquid

**Table 5** Fractions obtained from **Crude B2** by CC

Fraction	Weight (g)	Physical characteristic
B2A	0.207	yellow viscous liquid
B2B	0.315	yellow viscous liquid
B2C	0.245	yellow viscous liquid
B2D	0.102	yellow viscous liquid
B2E	0.305	yellow viscous liquid
B2F	0.387	yellow viscous liquid
B2G	2.832	a mixture of a white solid and yellow viscous liquid
B2H	4.668	a mixture of a white solid and yellow viscous liquid
B2I	7.505	deep yellow viscous liquid
B2J	3.661	brown viscous liquid
B2K	4.745	brown viscous liquid

**Table 6** Fractions obtained from **Crude C1** by CC

Fraction	Weight (g)	Physical characteristic
C1A	0.055	yellow viscous liquid
C1B	1.323	yellow viscous liquid
C1C	1.921	yellow viscous liquid
C1D	0.953	yellow viscous liquid
C1E	0.255	brown viscous liquid
C1F	0.250	brown viscous liquid
C1G	0.021	brown viscous liquid

**Table 7** Fractions obtained from **Crude C2** by CC

Fraction	Weight (g)	Physical characteristic
C2A	0.010	yellow viscous liquid
C2B	0.026	yellow viscous liquid
C2C	5.435	yellow viscous liquid
C2D	2.351	deep yellow viscous liquid
C2E	0.951	brown viscous liquid

**Table 8** Fractions obtained from **Crude D** by CC

Fraction	Weight (g)	Physical characteristic
D1	0.350	yellow viscous liquid
D2	0.334	yellow viscous liquid
D3	0.520	a mixture of a yellow solid and yellow viscous liquid
D4	0.672	a mixture of a yellow solid and yellow viscous liquid
D5	0.682	a mixture of a yellow solid and yellow viscous liquid
D6	0.675	a mixture of a yellow solid and brown viscous liquid
D7	0.201	a mixture of a yellow solid and brown viscous liquid
D8	0.721	a mixture of a yellow solid and brown viscous liquid
D9	0.248	a mixture of a yellow solid and brown viscous liquid
D10	0.612	a mixture of a yellow solid and brown viscous liquid
D11	0.616	brown viscous liquid

**Table 9** Fractions obtained from **Crude E** by QCC

Fraction	Weight (g)	Physical characteristic
E1	0.258	yellow oil
E2	0.334	brown oil
E3	0.779	yellow viscous liquid
E4	0.370	deep yellow viscous liquid
E5	5.872	a mixture of a yellow solid and yellow viscous liquid
E6	0.342	a mixture of a yellow solid and brown viscous liquid

**Table 10** Fractions obtained from **Crude F** by QCC

Fraction	Weight (g)	Physical characteristic
F1	6.802	brown oil
F2	0.015	a mixture of a yellow solid and yellow viscous liquid
F3	3.504	brown oil
F4	0.027	brown oil
F5	5.330	brown oil
F6	6.950	brown oil

**Table 11** Fractions obtained from **Crude G1** by QCC

Fraction	Weight (g)	Physical characteristic
G1.1	2.645	green viscous liquid (wax)
G1.2	0.282	yellow viscous liquid (wax)
G1.3	7.121	yellow viscous liquid (wax)
G1.4	0.395	yellow viscous liquid (wax)
G1.5	2.224	yellow viscous liquid
G1.6	7.731	a mixture of a yellow solid and yellow viscous liquid
G1.7	4.835	yellow viscous liquid
G1.8	1.602	brown viscous liquid
G1.9	3.408	brown viscous liquid
G1.10	8.374	brown viscous liquid
G1.11	4.321	brown viscous liquid
G1.12	7.500	brown viscous liquid
G1.13	1.020	brown viscous liquid
G1.14	0.285	brown viscous liquid
G1.15	0.872	brown viscous liquid
G1.16	4.682	brown viscous liquid
G1.17	2.858	brown viscous liquid

**Table 12** Fractions obtained from **Crude H** by CC

Fraction	Weight (g)	Physical characteristic
H1	1.175	yellow viscous liquid
H2	4.340	yellow viscous liquid
H3	1.786	yellow viscous liquid
H4	3.616	yellow viscous liquid
H5	0.876	yellow viscous liquid
H6	2.317	yellow viscous liquid

**Table 13** Fractions obtained from **Crude I** by QCC

Fraction	Weight (g)	Physical characteristic
I1	0.209	a mixture of a yellow solid and yellow viscous liquid
I2	0.205	a mixture of a yellow solid and yellow viscous liquid
I3	0.127	a mixture of a yellow solid and yellow viscous liquid
I4	0.236	a mixture of a yellow solid and yellow viscous liquid
I5	0.271	a mixture of a yellow solid and yellow viscous liquid
I6	0.064	a mixture of a yellow solid and yellow viscous liquid
I7	0.105	a mixture of a yellow solid and yellow viscous liquid
I8	0.265	a mixture of a yellow solid and yellow viscous liquid

**Table 14** Fractions obtained from **Crude J** by CC

Fraction	Weight (g)	Physical characteristic
J1	1.835	yellow viscous liquid
J2	0.343	yellow viscous liquid
J3	0.831	yellow viscous liquid
J4	0.431	yellow viscous liquid
J5	2.354	yellow viscous liquid
J6	2.453	yellow viscous liquid

**Table 15** Fractions obtained from **Crude K** by CC

Fraction	Weight (g)	Physical characteristic
K1	1.041	yellow viscous liquid
K2	0.529	yellow viscous liquid
K3	0.357	yellow viscous liquid
K4	1.132	yellow viscous liquid
K5	0.345	yellow viscous liquid
K6	0.097	yellow viscous liquid
K7	4.012	yellow viscous liquid
K8	0.126	yellow viscous liquid
K9	0.006	yellow viscous liquid
K10	0.202	yellow viscous liquid
K11	0.053	yellow viscous liquid
K12	0.254	yellow viscous liquid

**Table 16** Fractions obtained from **Crude L** by CC

Fraction	Weight (g)	Physical characteristic
L1	0.035	yellow viscous liquid
L2	0.050	yellow viscous liquid
L3	1.686	yellow viscous liquid
L4	0.046	yellow viscous liquid
L5	0.982	yellow viscous liquid
L6	0.047	yellow viscous liquid

**Table 17** Fractions obtained from **Crude M** by CC

Fraction	Weight (g)	Physical characteristic
M1	0.300	brown viscous liquid
M2	1.875	brown viscous liquid
M3	0.797	brown viscous liquid
M4	2.785	brown viscous liquid
M5	3.365	a mixture of a yellow solid and brown viscous liquid
M6	1.525	a mixture of a yellow solid and brown viscous liquid
M7	0.701	brown viscous liquid
M8	0.767	brown viscous liquid
M9	3.947	brown viscous liquid
M10	3.495	brown viscous liquid
M11	1.093	brown viscous liquid
M12	12.581	brown viscous liquid



**Table 18** Fractions obtained from **Crude N** by QCC

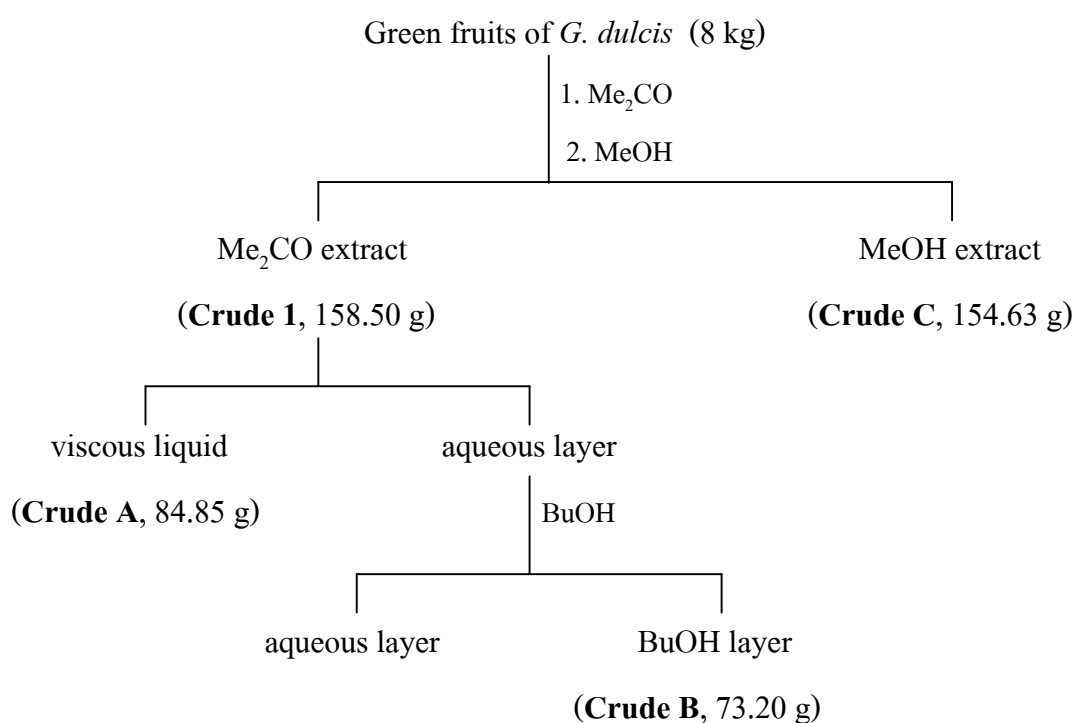
Fraction	Weight (g)	Physical characteristic
N1	0.470	yellow viscous liquid (wax)
N2	0.746	yellow viscous liquid
N3	1.378	yellow viscous liquid
N4	3.431	a mixture of a brown solid and brown viscous liquid
N5	2.946	a mixture of a brown solid and brown viscous liquid
N6	1.810	brown viscous liquid
N7	2.420	brown viscous liquid
N8	0.847	deep brown viscous liquid

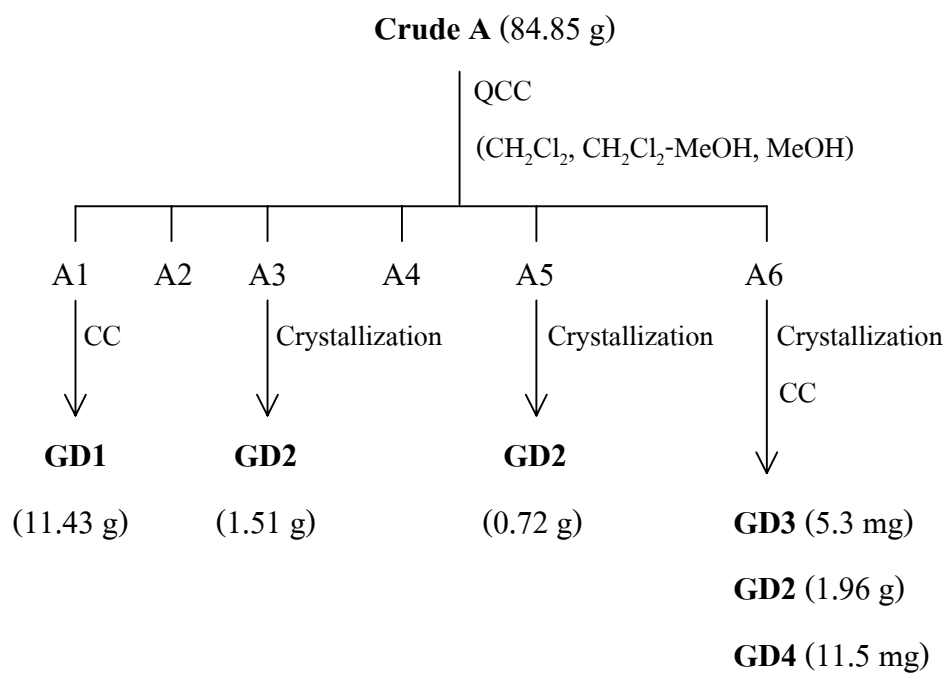
**Table 19** Fractions obtained from **Crude O** by CC

Fraction	Weight (g)	Physical characteristic
O1	0.110	yellow viscous liquid
O2	0.202	yellow viscous liquid
O3	0.112	yellow viscous liquid
O4	0.078	yellow viscous liquid
O5	0.144	yellow viscous liquid
O6	0.013	yellow viscous liquid
O7	0.011	yellow viscous liquid
O8	0.264	yellow viscous liquid
O9	0.036	yellow viscous liquid
O10	0.008	yellow viscous liquid
O11	0.187	yellow viscous liquid

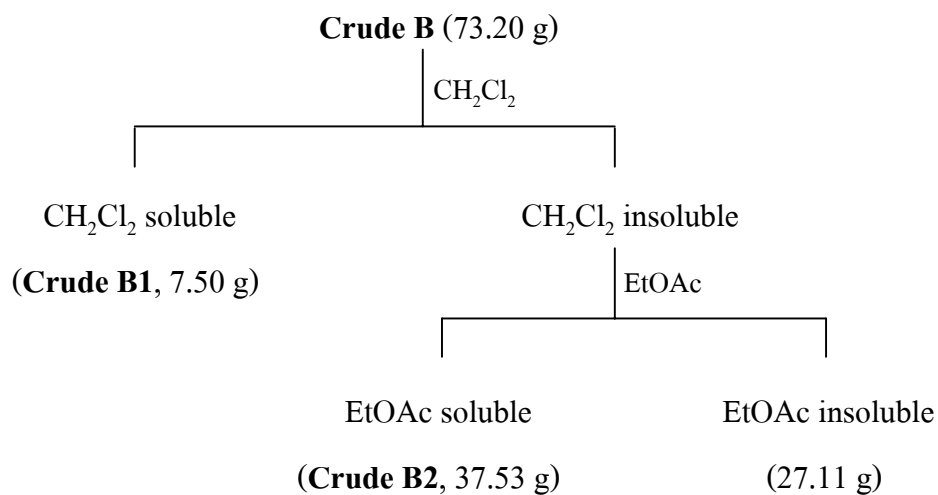
**Table 20** Fractions obtained from **Crude P** by QCC

Fraction	Weight (g)	Physical characteristic
P1	5.667	yellow viscous liquid
P2	7.422	yellow viscous liquid
P3	5.023	a mixture of a yellow solid and yellow viscous liquid
P4	8.476	a mixture of a yellow solid and yellow viscous liquid
P5	3.751	a mixture of a yellow solid and yellow viscous liquid
P6	4.773	brown viscous liquid
P7	3.002	deep brown viscous liquid

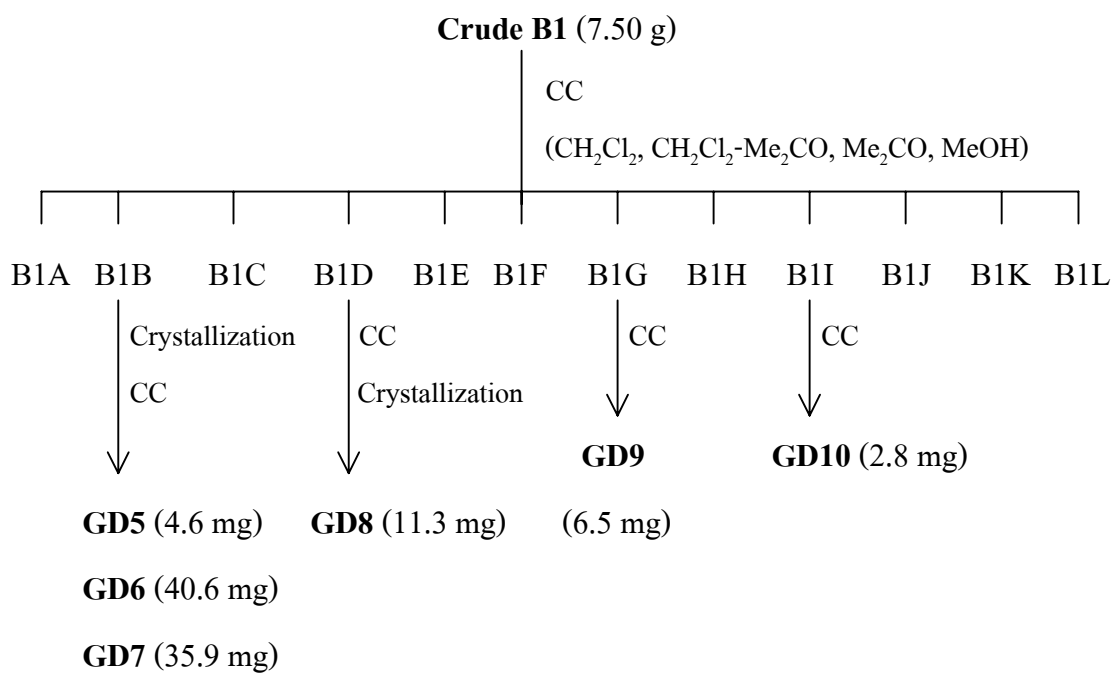
**Figure 2** Extraction of **Crudes 1, A, B** and **C** from the green fruits of *G. dulcis*



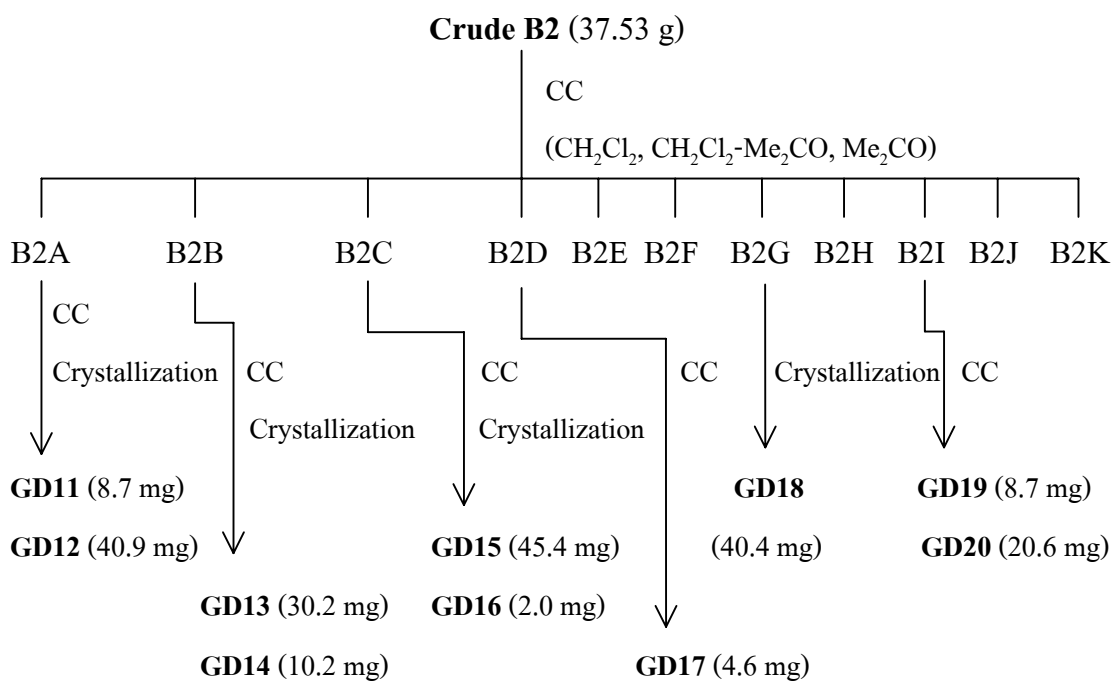
**Figure 3** Isolation of compounds **GD1-GD4**



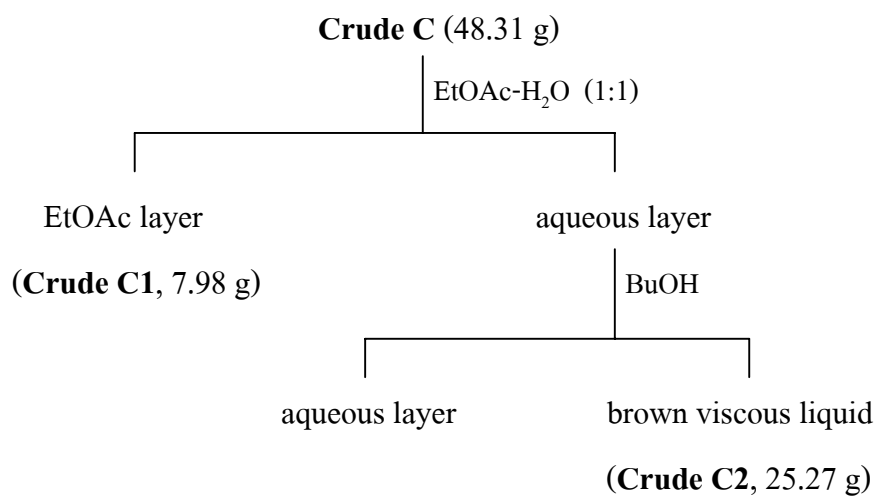
**Figure 4** Extraction of **Crudes B1** and **B2** from the green fruits of *G. dulcis*



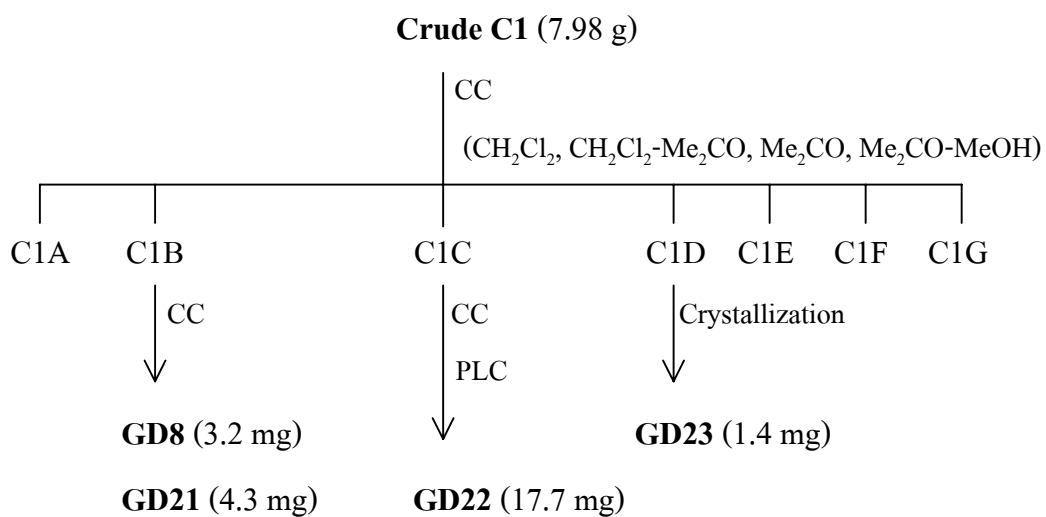
**Figure 5** Isolation of compounds **GD5-GD10**



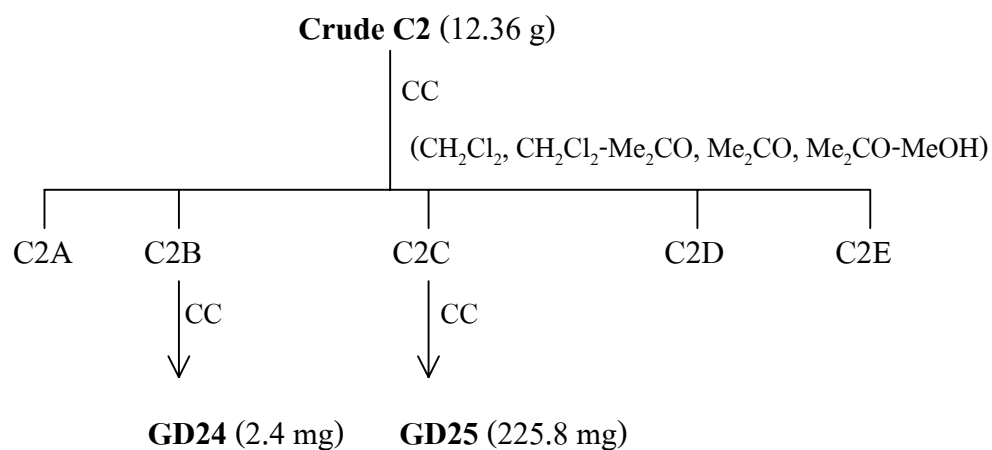
**Figure 6** Isolation of compounds **GD11-GD20**



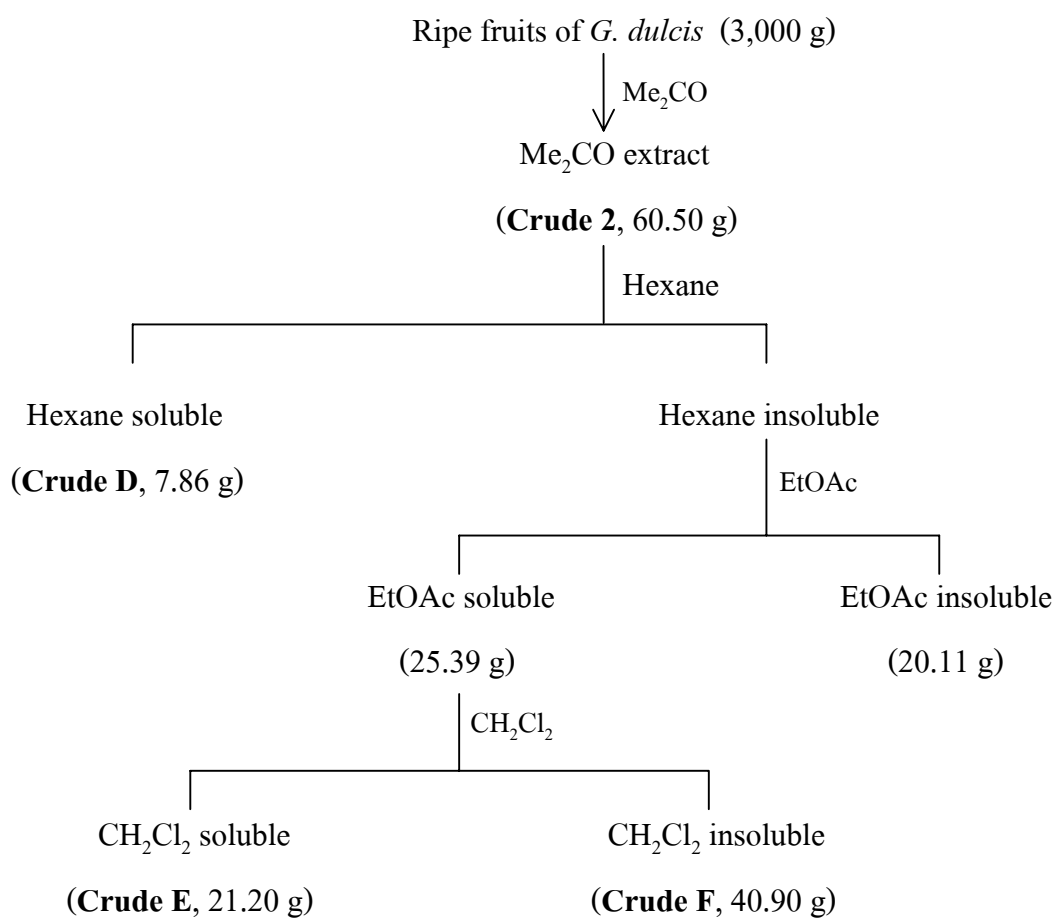
**Figure 7** Extraction of **Crudes C1** and **C2** from the green fruits of *G. dulcis*



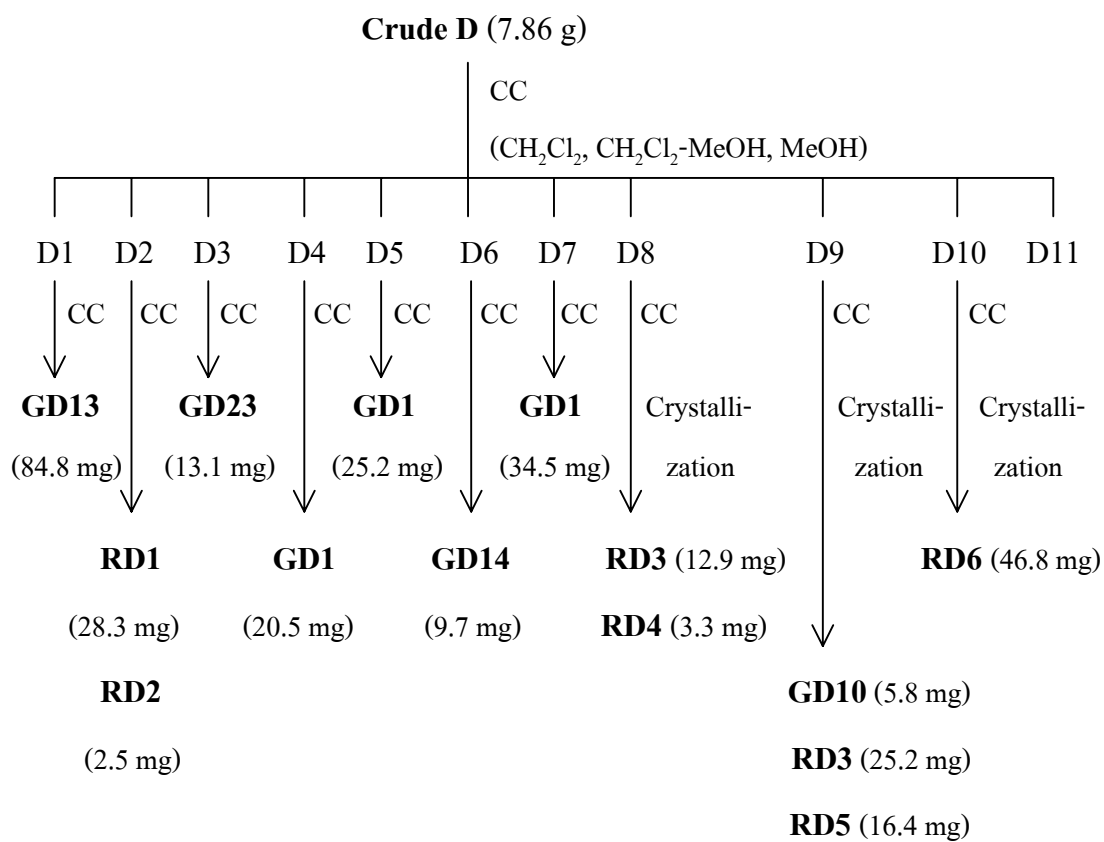
**Figure 8** Isolation of compounds **GD8** and **GD21-GD23**



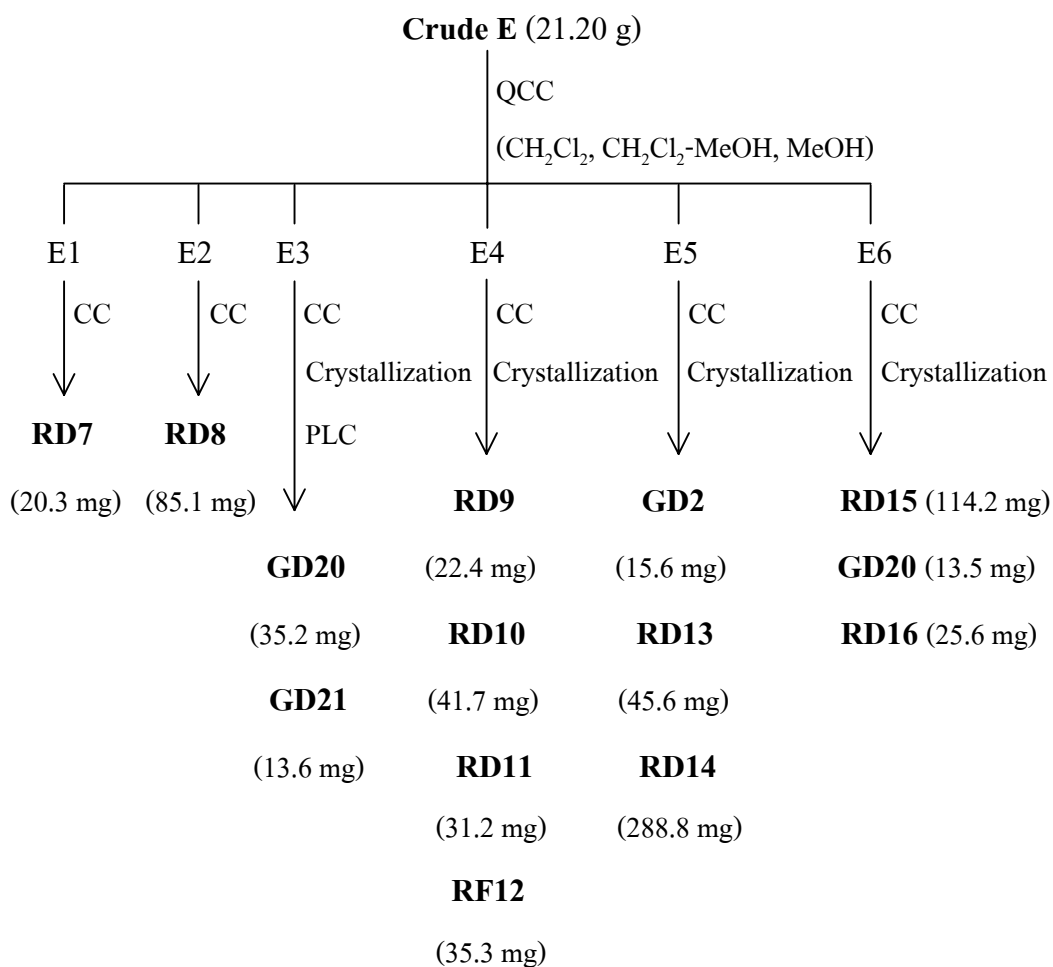
**Figure 9** Isolation of compounds **GD24** and **GD25**



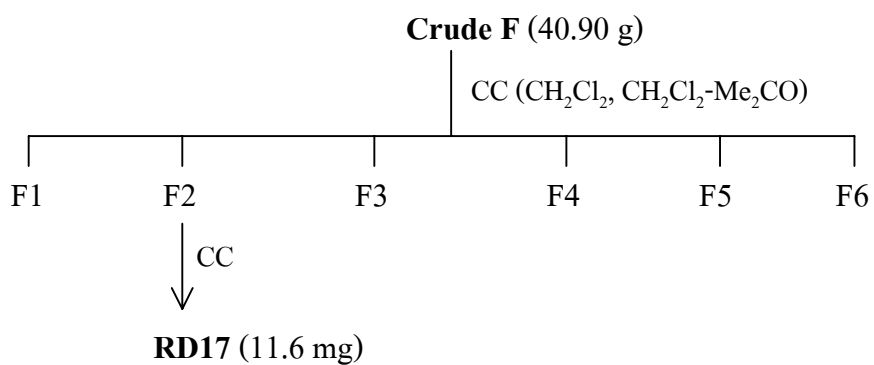
**Figure 10** Extraction of **Crudes 2, D, E** and **F** from the ripe fruits of *G. dulcis*



**Figure 11** Isolation of compounds **GD1**, **GD10**, **GD13**, **GD14**, **GD23** and **RD1-RD6**

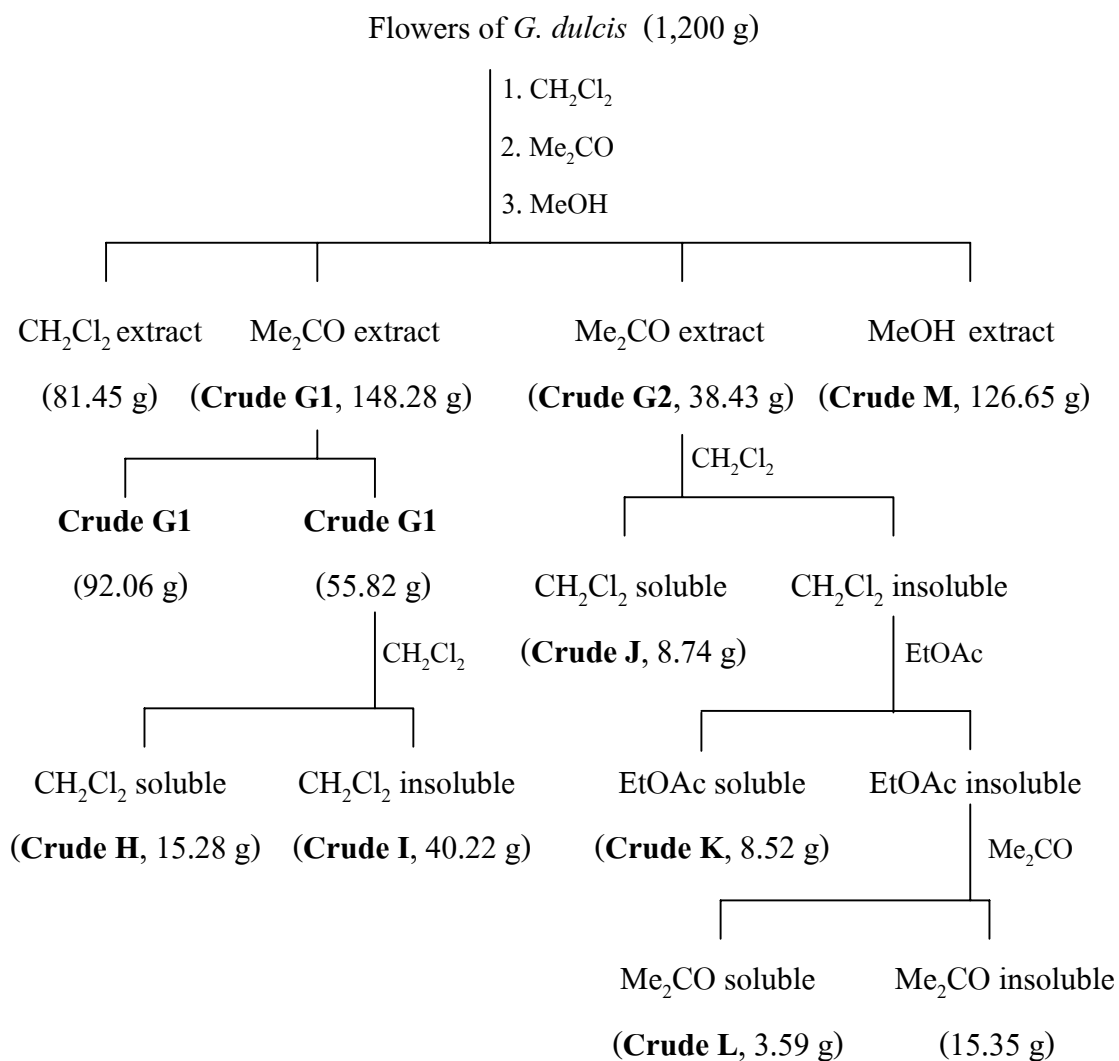


**Figure 12** Isolation of compounds **GD2**, **GD20**, **GD21** and **RD7-RD16**

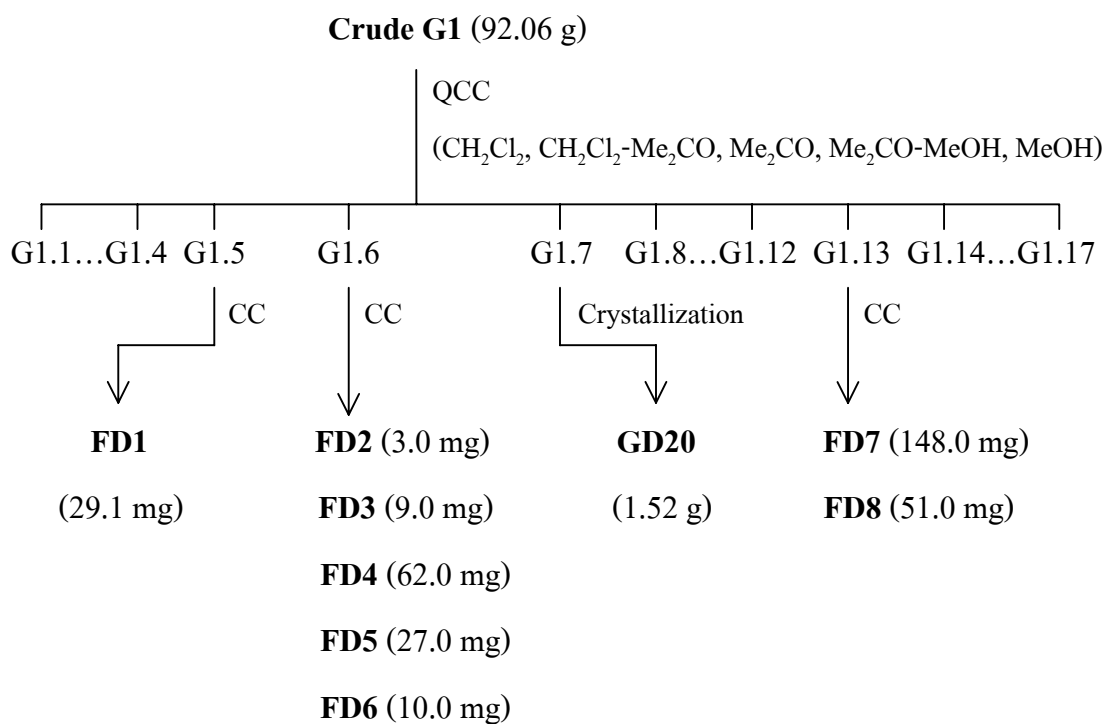


**Figure 13** Isolation of compound **RD17**

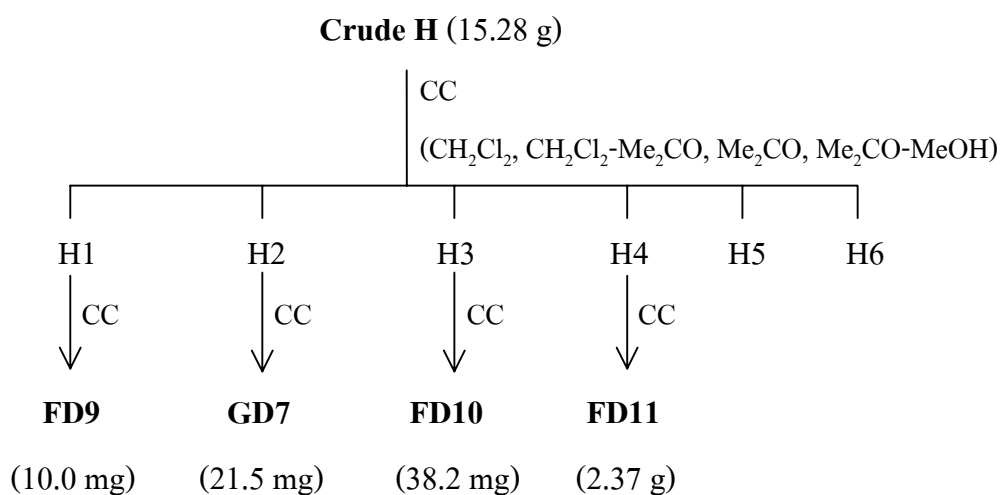




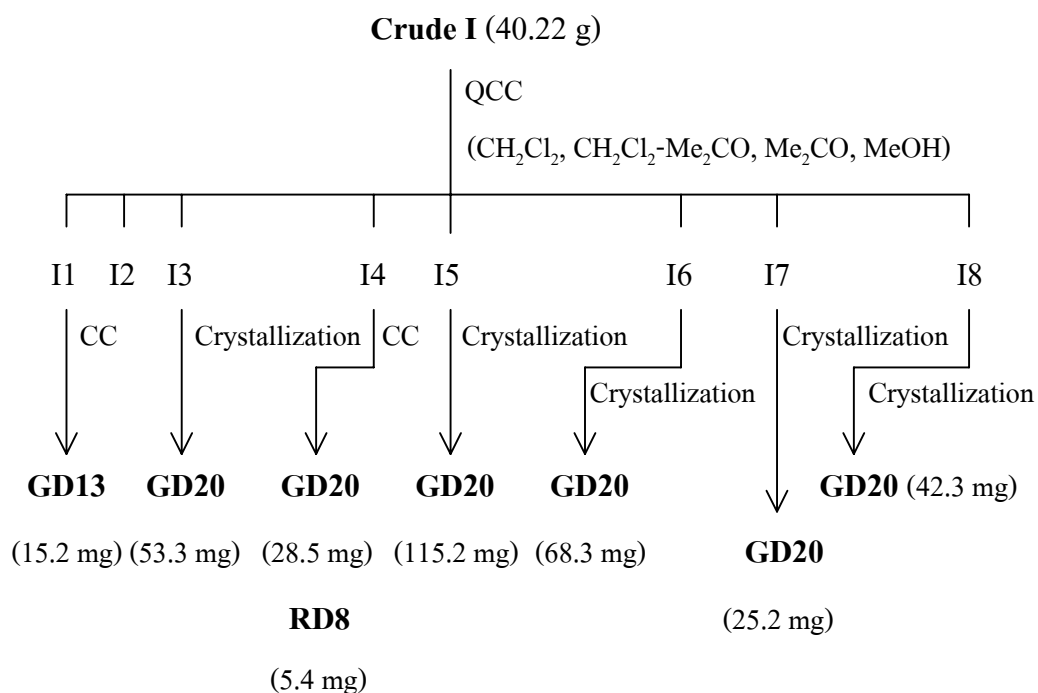
**Figure 14** Extraction of **Crudes G1, G2, H, I, J, K, L** and **M**  
from the flowers of *G. dulcis*



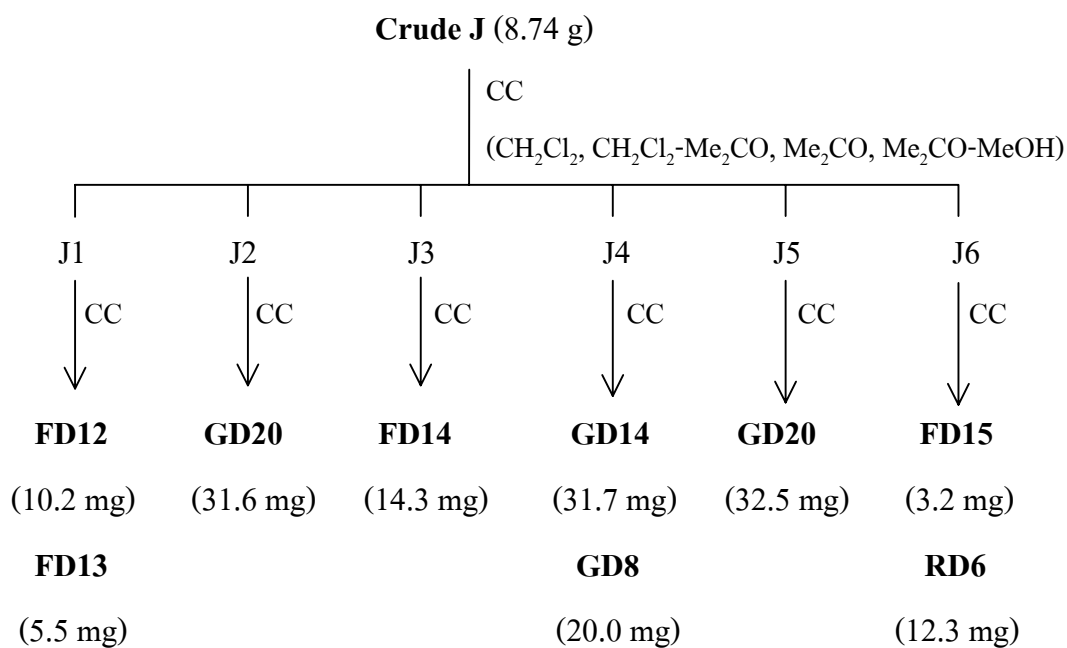
**Figure 15** Isolation of compounds **GD20**, **FD1-FD8**



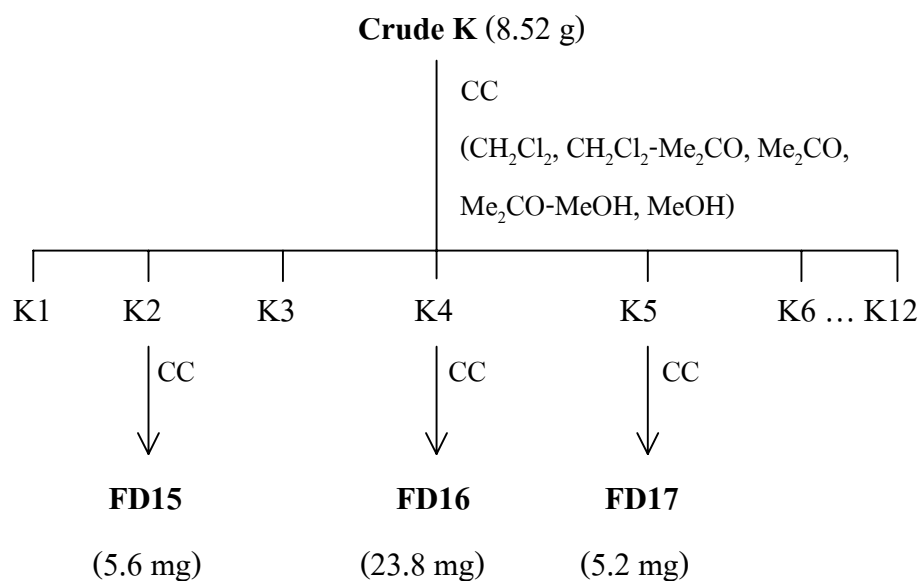
**Figure 16** Isolation of compounds **GD7**, **FD9-FD11**



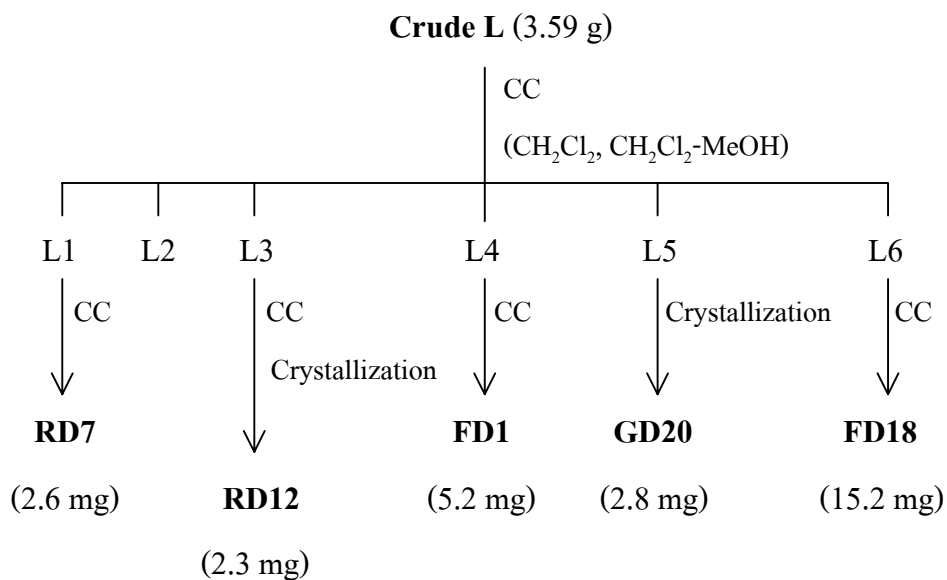
**Figure 17** Isolation of compounds **GD13**, **GD20** and **RD8**



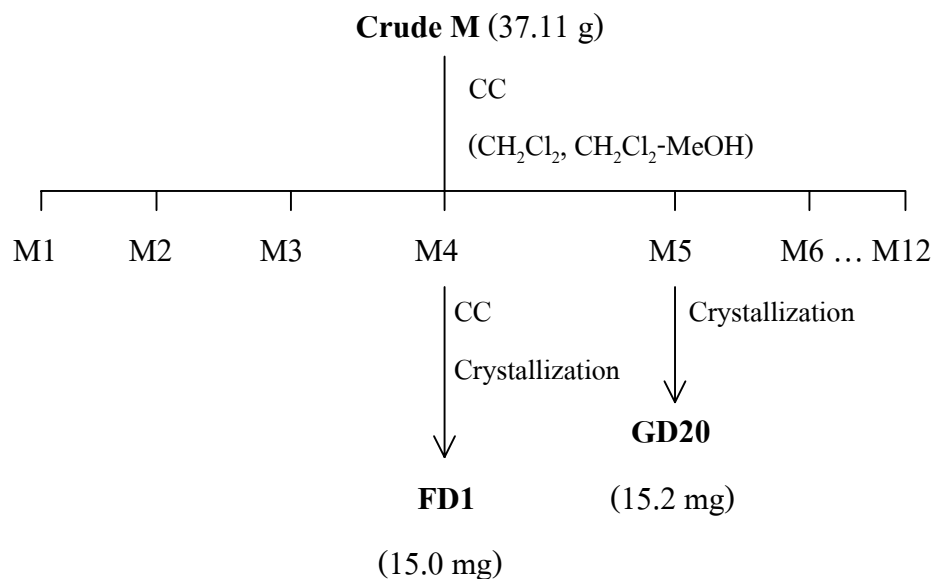
**Figure 18** Isolation of compounds **GD8**, **GD14**, **GD20**, **RD6** and **FD12-FD15**



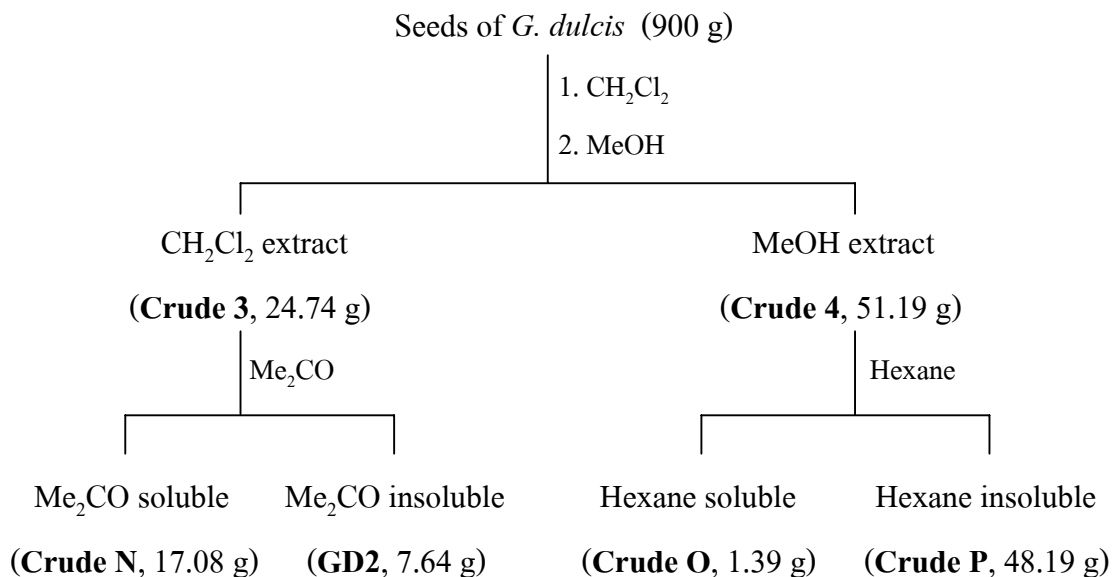
**Figure 19** Isolation of compounds **FD15-FD17**



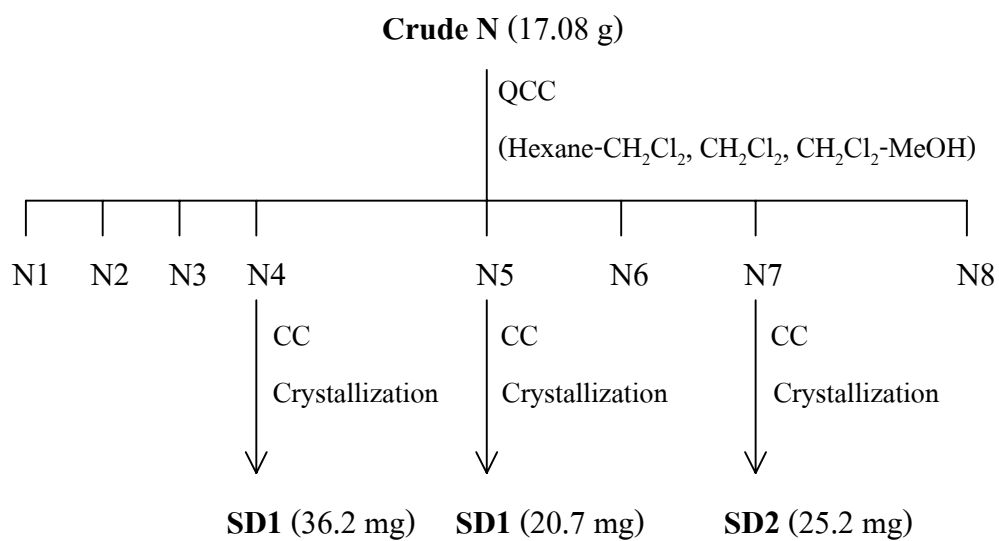
**Figure 20** Isolation of compounds **GD20, RD7, RD12, FD1** and **FD18**



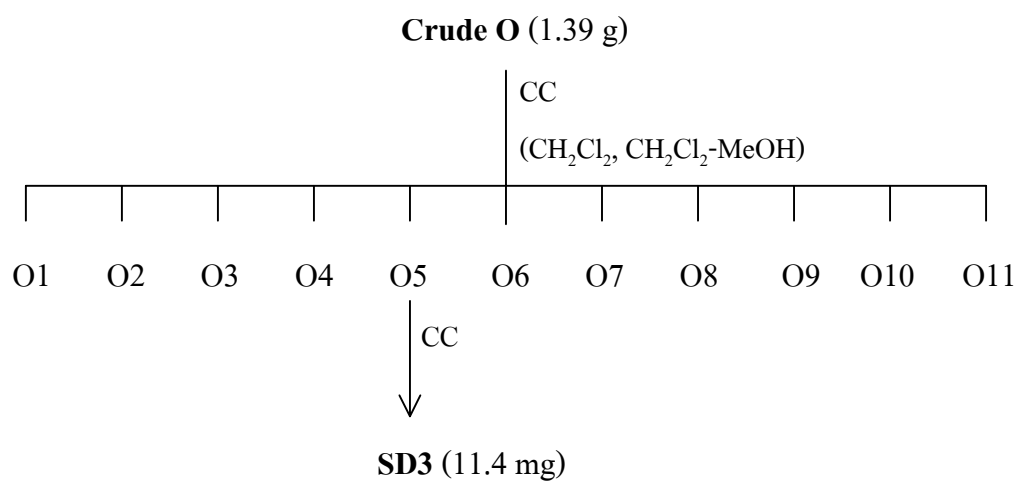
**Figure 21** Isolation of compounds **GD20** and **FD1**



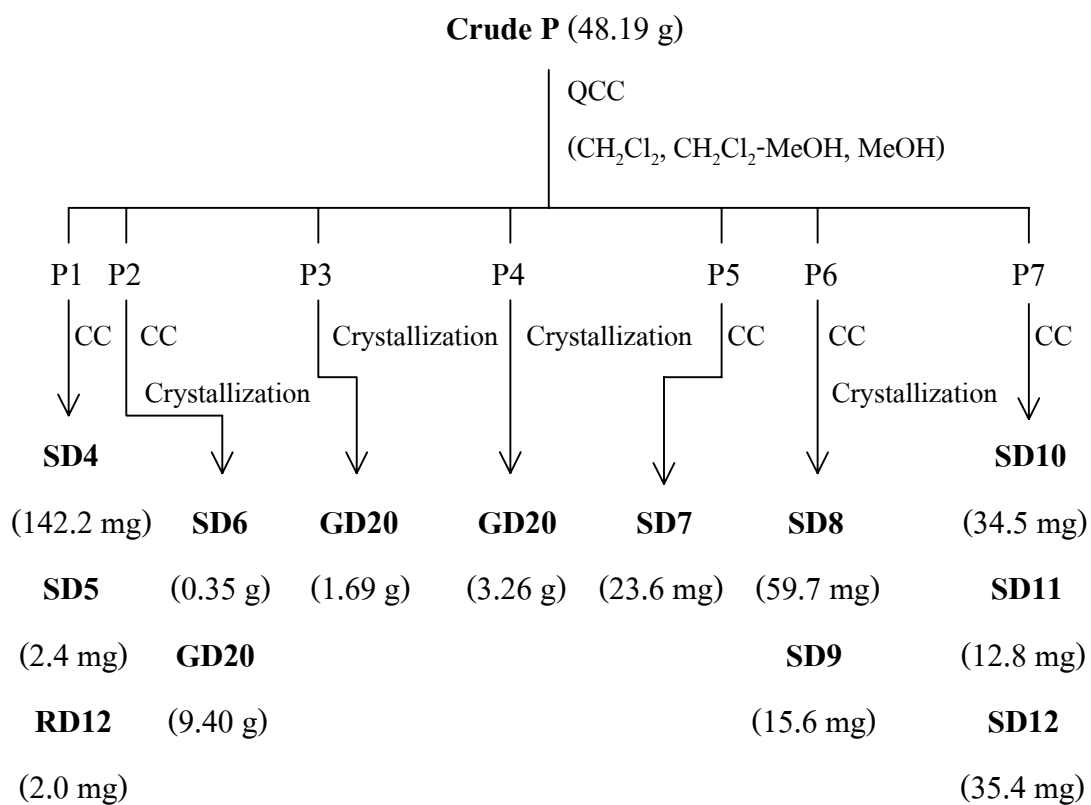
**Figure 22** Extraction of compound **GD2**, **Crudes 3, 4, N, O** and **P**  
from the seeds of *G. dulcis*



**Figure 23** Isolation of compounds **SD1** and **SD2**



**Figure 24** Isolation of compound **SD3**



**Figure 25** Isolation of compounds **GD20**, **RD12** and **SD4-SD12**