

Phytochemical Analysis of Bangladeshi Medicinal Plants Led to the Isolation of Anti-Staphylococcal Compounds

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Supplementary materials:

Isolation and purification of the compounds:

Table S1. Isolation of compounds from hexane extract of *Zingiber montanum*.

Compound Code	Initial Fractionation	Further Fractionation	Further Purification Procedure	Detection	Amount	R _f value
MRSH-2	CC (over Sephadex LH20) eluted with 50% Chloroform in hexane	-	PTLC eluted with 15% EtOAc in hexane	Visible under short UV	3 mg	0.51
MRSH-3	CC (over Sephadex LH20) eluted with 50% Chloroform in hexane	-	PTLC eluted with 15% EtOAc in hexane	Bright Yellow with VS	10 mg	0.52
MRSH-6	100% CHCl ₃	-	-	Bright pink with VS	39 mg	0.45
ZMH-4	15% EtOAc in hexane	4% EtOAc in hexane	4% EtOAc in hexane with glacial acetic acid	UV active no colour with VS	7 mg	0.85
ZMH-5	15% EtOAc in hexane	4% EtOAc in hexane	4% EtOAc in hexane with glacial acetic acid	Fade with VS	4 mg	0.61
ZMH-8	15% EtOAc in hexane	10% EtOAc in hexane	5% EtOAc in hexane with glacial acetic acid	Dark pink	5 mg	0.5
ZMH-10	15% EtOAc in hexane	10% EtOAc in hexane	5% EtOAc in hexane with glacial acetic acid	Dark pink	7 mg	0.54

VS= 1% Vanillin in sulphuric acid.

Table S2. Isolation of compounds from chloroform extract of *Zingiber montanum*. (The starting amount was 242 g).

Compound Code	VLC Fraction	SPE/Sephadex	PTLC	Detection	Amount	R _f value
HZC 30/ZMH 14	25% EtOAc in hexane	10% EtOAc in hexane	15% EtOAc in hexane	Dark pink	4 mg	0.51
HZC 39/ZMH 4	10% EtOAc in hexane	4% EtOAc in hexane (Sephadex LH-20 Column)	4% EtOAc in hexane	Yellow spot turned blue with VS	6.5 mg	0.55

Table S3. Isolation of compounds from methanol extract of *Uraria picta*.

Compound Code	VLC Fraction	SPE/Sephadex	PTLC	Detection	Amount	R _f value
UPM 3	10% EtOAc in Hexane	4% EtOAc in Hexane	5% EtOAc in Hexane	Dark pink with VS	5 mg	0.75
UPM 46a	20-40% EtOAc in Hexane	50% chloroform in hexane	10% EtOAc in Hexane	Dark spot under short UV	4 mg	0.69

VS= 1% Vanillin in sulphuric acid.

Table S4. Isolation of compounds from Hexane extract of *Cynometra ramiflora*.

Compound Code	VLC Fraction	SPE/Sephadex	PTLC	Detection	Amount	R _f value
CRH 9/12	33.3% EtOAc in hexane	-	15% EtOAc in Hexane	Visible in short UV, light violet after spray.	65 mg	0.69
CRH 16	33.3% EtOAc in hexane	-	15% EtOAc in Hexane	Visible after spray dark pink only	6 mg	0.37
CRH 34	60% EtOAc in hexane	17.5% EtOAc in hexane	20% EtOAc in Hexane with acetic acid	Dark spot under long UV	3 mg	0.82
CRC 10	-	25% CHCl ₃ in hexane (Sephadex LH 20) 4% EtOAc in hexane (SPE fraction)	25% EtOAc in hexane	Visible in short UV	6 mg	0.49

Table S5. Isolation of compounds from Hexane extract of *Diosphyros malabarica*.

Compound Code	VLC Fraction	Sephadex LH 20	PTLC	Detection	Amount	R_f value
DMH 2	10% EtOAc in Hexane	-	30% EtOAc in Hexane with few drops of acetic acid	Dark green, Visible in short UV, green after spray.	3 mg	0.68
DMH 3/5	10% EtOAc in Hexane	-	30% EtOAc in Hexane with few drops of acetic acid	Yellow, visible in short UV, turned dark yellow after spray	7 mg	0.47
DMH 10	60% EtOAc in Hexane	-	30% EtOAc in hexane with acetic acid	Yellow, turned green after spray	2 mg	0.65
DMH 15	6.6% Methanol in EtOAc	-	20% EtOAc in Hexane with acetic acid	Visible in short UV	4 mg	0.70
DMC 22	10-20% EtOAc in Hexane	-	20% EtOAc in Hexane with acetic acid	Visible in long UV	6 mg	0.68

Table S6. Isolation of compounds from Hexane extract of *Swertia chirayita*.

Compound Code	VLC Fraction	PTLC	Detection	Amount	R_f value
SCH 1	70% EtOAc in hexane	30% EtOAc in Hexane with few drops of acetic acid	Dark green, visible in short UV, turned green after spray	5 mg	0.75
SCH 2	70% EtOAc in hexane	30% EtOAc in Hexane with few drops of acetic acid	Yellow colour, visible in short UV, turned green after spray	2 mg	0.50
SCH 10	18.88% MeOH in EtOAc	32% EtOAc in hexane with few drops of acetic acid	Light yellow, visible under short UV	5 mg	0.69
SCH 11	18.88% MeOH in EtOAc	32% EtOAc in hexane with few drops of acetic acid	Visible in short UV	2 mg	0.48
SCH 15	0-33.3% EtOAc in methanol	36% EtOAc in hexane with few drops of acetic acid	Visible in short UV	1 mg	0.48