The air dried and powdered flower parts of *Moringa pterygosperma* (Moringaceae) were extracted with hexane and further extracted with 80% boiling ethanol.

The concentrated alc. extract was suspended into distilled water and further extracted with hexane, benzene, chloroform, ethyl acetate and n-butanol.

Nothing could be separated from the hexane extract when this was chromatographed on silica gel column.

The chloroform extract gave Salkowski reaction. This fraction was concentrated and chromatographed on silica gel column using hexane, benzene, chloroform and methanol as a eluting solvent. From the ethyl acetate - methanol (6:4, v/v) eluent fraction a pale yellow colour compound marked as MF-3 was obtained.

The ethylacetate soluble fraction was found to contain two compounds chromatographically. The compound was separated by silica gel column by using hexane, benzene, chloroform, ethylacetate and methanol successively for elution benzene – ethylacetate (6:4, v/v) fraction furnished a compound with clear distinct on tlc plate which were further purified on
preparative tlc plate. These were marked as MF-1. The benzene– chloroform (9:1, v/v) eluate yielded another compound labeled as MF-2.

Nothing could be separated from the methanol extract when this was chromatographed on silica gel column.

Thus three different compounds could be isolated from the flower part of *Moringa pterygosperma* as listed below:

MF-1 : Kaempferol 7-O-β-D-alloside

MF-2 : Rhamnetin 3-O-(2′-galloyl)-β-D-galactopyranosyl

4′-β-D-xyloside

MF-3 : Quercetin 3-O-α-L-rhamnosyl (1→6)-β-D-glucoside
Flower Part of *Moringa pterygosperma* (12kg)

Hexane Extract

- Saponification with alc.KOH (0.5 N)
- Saponifiable
- Unsaponifiable

Defatted flower

- Extracted with 80% Ethanol
- Ethanolic extract

- Suspended in water and washed with distilled water and extracted with different solvents

Hexane

Benzene

Chloroform

Concentrated and adsorbed on Si-gel column eluated with different solvents

- Chloroform: Ethylacetate (9:1,v/v)
- Ethylacetate: Methanol (6:4,v/v) eluated compound MF-3 (mp. 272°C)

Ethylacetate

Methanol

Charged over Si-gel column

- Benzene: Ethylacetate (9:1,v/v) eluated compound MF-2 (mp. 288-289°C)
- Benzene: Ethylacetate (6:4,v/v) eluate compound MF-1 (mp. 195°C)
EXPERIMENTAL

Separation, isolation and purification of the constituents:

The plant of the *Moringa pterygosperma* (Moringaeae) were collected from Bilaspur in the month of Feb 2008 and authenticated. A voucher specimen is deposited at Botanical Research Institute Lucknow.

**Extraction with hexane:**

The dried and powdered flower parts of *Moringa pterygosperma* (12kg) were extracted with boiling hexane. The combined hexane extract was concentrated under reduced pressure and yellow viscous mass thus obtained was saponified with 0.5N alc. KOH for three hrs. under reflux. The unsaponifiable solution was extracted with ether. The concentrated ether layer was with distilled water and dried over anhydrous sodium sulphate. The concentrated ether extract was charged over silica gel column no compound could be isolated.

**Extraction with ethanol:**

The defatted flower was subsequently extracted under reflux with 80% ethanol. The concentrated extract was suspended in to water and extracted with hexane, benzene, chloroform, ethylacetate and methanol.
**Chloroform soluble fraction:**

The chloroform extract was found to contain one compound chromatographically. The compound was separated by silica gel column by using hexane, benzene, chloroform, ethylacetate and methanol successively for elution from ethylacetate – methanol (6:4,v/v), benzene – ethylacetate (9:1, v/v) fraction a homogeneous pale yellow colour compound was obtained marked as MF-3.

**Ethylacetate soluble fraction:**

The ethylacetate soluble fraction when chromatographed on column of silica gel gave a compound MF-1 upon elution with benzene- ethylacetate (6:4,v/v). The benzene and chloroform (9:1, v/v) eluate yielded another compound marked as MF-2.