

ESSENTIAL OILS OF BRAZILIAN NORTHEASTERN PLANTS:
CENTRATHERUM PUNCTATUM

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Centratherum punctatum Cass., which is known locally as *perpetua roxa*, is a member of the Compositae family commonly found throughout Northeastern Brazil. The oil of *C. punctatum*, which was analyzed by a combination of gc/ms, was found to contain:

α -pinene	(1.8%)	α -humulene	(2.4%)
sabinene	(2.2%)	caryophyllene	(11.1%)
β -pinene	(9.1%)	γ -cadinene	(8.6%)
ρ -cymene	(0.8%)	γ -muurolene	(1.7%)
limonene	(1.4%)	δ -cadinene	(17.9%)
β -cubebene	(2.6%)	germacrene D	(5.7%)
α -copaene	(5.6%)	δ -cadinol	(1.1%)
fenchone	(1.7%)		

Previously (1), α -humulene, caryophyllene, germacrene D, and bicyclogermacrene had been identified as components of this above-ground plant.

EXPERIMENTAL

The material consisting of flowering parts of the plant (1 kg) was collected in the vicinity of Fortaleza, Brazil. A voucher specimen (No. 5995) was deposited in the Herbarium of Universidade Federal do Ceará. The essential oil, which was obtained by steam distillation (2) (yield 0.5% w/v), was analyzed using a Hewlett Packard 5995 gc/ms containing a WCOT SP2100 (methyl silicone) column (30 m \times 0.5 mm i.d.) temperature programmed from 50° to 250° at 4°/min with helium as the carrier gas (1 ml/min). Identifications were achieved with the aid of computerized library search programs involving ms data and Kovat's Indices (3).

The ms results were confirmed by comparison of isolated spectra with published standard spectra (4,5).

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