

**Embra**

# 30<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON ESSENTIAL OILS (30<sup>TH</sup> ISEO)

September 5 - 8, 1999

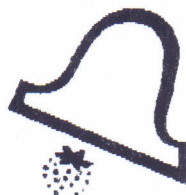
Final Programm · Abstracts · Author Index

**UNIVERSITÄT LEIPZIG**

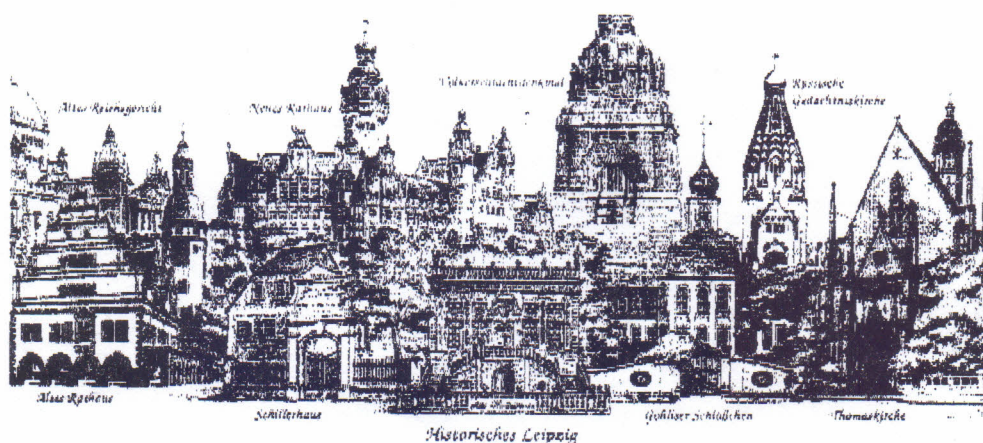
Institut für Organische Chemie



Bell Flavors & Fragrances  
Duft und Aroma GmbH Leipzig-Miltitz



Leipzig and Miltitz · Germany



S  
8295

Alternative sources for ...  
1999 SP-S8295



CPAA-6063-1

**ALTERNATIVE SOURCES FOR ESSENTIAL OILS OBTAINED BY  
EXTRACTIVISM: LINALOOL-RICH OIL FROM LEAVES OF  
*CROTON CAJUCARA* BENTH.**

<sup>1</sup>Daise Lopes, <sup>1</sup>Humberto R. Bizzo, <sup>2</sup>Antônio F. S. Sobrinho, <sup>3</sup>Marcos V. G. Pereira,  
<sup>4</sup>Lisandra F. Abreu, 1-Embrapa Agroindústria de Alimentos, Av. das Américas  
29501, Rio de Janeiro, 23020-470, Brazil. 2-Embrapa Amazônia Ocidental, Rodovia  
Am 010 km 29, Manaus AM, Brazil. 3- Instituto de Química, UFRJ - CT bloco A, 6º  
andar, Cidade Universitária, Rio de Janeiro, Brazil. 4-Instituto de Química UFRJ,  
BR-465 km 7, Seropédica RJ, Brazil.

Linalool and its esters are largely used in the perfumery industry. In the past, Cayenne Bois de Rose oil (from *Aniba roseodora* Ducke) and mainly Rosewood oil (from *Aniba duckei* Kost.) were the main sources of linalool. Brazil was the dominant producer and exporter, reaching 500 tons of oil in the early 60's [1]. After decades of unsustainable extractivism, the Brazilian production fell down to 59 tons in 1994. Nowadays, the linalool market is supplied by synthesis [2]. Looking for renewable sources of essential oils, an Amazonian shrub called sacaca (*Croton cajucara* Benth.), already used in folk medicine against stomach and intestine diseases, was found to produce an oil rich in linalool. The hydrodistillation of fresh leaves of sacaca yielded (0,64%) an oil containing linalool (47,5%),  $\beta$ -caryophyllene (7,0%),  $\beta$ -bourbonene (1,8%) and other minority constituents, identified by mass spectrometry and retention indices. The optical rotation of the oil (-22,34°) suggested a high content of (3R)-(-)-linalool, the enantiomer associated with woody and lavender-like notes [1]. A programme is currently under development at Embrapa concerning agronomic studies and trials on *Croton cajucara* plants collected in different localities of Amazon and Acre states. Other Amazonian *Croton* species are also being investigated.

[1] S.T. Ohashi, L.S. Rosa, J.A. Santana and C.L. Green, *Perfumer & Flavorist*, 22 (1997) 1-5.

[2] G.S. Clark, *Perfumer & Flavorist*, 13 (1988) 49-54.