

Register

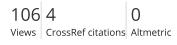


Journal

## Journal of Wood Chemistry and Technology >

Figures & data

Volume 35, 2015 - Issue 4



Original Articles

## Antioxidant Phenolic Compounds of Ethanolic and Aqueous Extracts from Pink Cedar (*Acrocarpus fraxinifolius* Whight & Arn.) Bark at Two Tree Ages

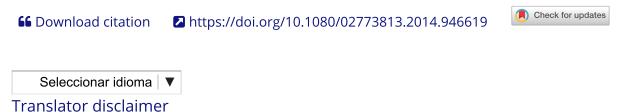
**66** Citations

Martha Rosales-Castro ✓, J. Amador Honorato-Salazar, Ma. Guadalupe Reyes-Navarrete & Rubén F. González-Laredo Pages 270-279 | Published online: 21 May 2015

**Metrics** 

Reprints & Permissions

Get access



References

## Abstract

Full Article

In Central Mexico, commercial plantations of pink cedar (*Acrocarpus fraxinifolius* Whight & Arn.) from 7 to 15 years old are ready for harvesting to obtain wood products without current bark use. Therefore, the aim of this work was to study ethanolic and hot water extracts from *A. fraxinifolius* bark of 7-year-old (young) and 13-year-old (mature) trees. Yields, total phenolic, flavonoid, and proanthocyanidin contents, as well radical scavenging activity by 1,1-diphenyl-2-picrylhydrazyl (DPPH) and 2,2-azinobis-(3-ethylbenzothiazoline-6-sulfonate) (ABTS) radicals, as well by ferric-reducing antioxidant power (FRAP) and low-density lipoprotein inhibition assays were estimated. Extracts of young tree barks showed higher phenolic content and better scavenging activity than extracts from mature tree barks; ethanolic extracts were superior to the aqueous ones. Positive correlations between polyphenol content and scavenging activity were observed. Results suggest that *A. fraxinifolius* bark loses phenolic content and antiradical activity as it ages. Bioactive phenolics such as gallic acid, catechin, epicatechin, and catechin gallate were identified by HPLC-DAD.

KEYWORDS: Acrocarpus fraxinifolius, bark, extraction solvent, free radicals scavenging, phenols, pink cedar, tree age







## People also read

Article

GC-MS analysis and hepatoprotective activity of the *n*-hexane extract of *Acrocarpus fraxinifolius* leaves against paracetamol-induced hepatotoxicity in male albino rats

Eman A. Abd El-Ghffar et al.

Pharmaceutical Biology

Published online: 9 Dec 2016

8

Information for

Authors

Editors Librarians

Societies

Help and info

Help

FAQs Newsroom

Contact us

Commercial services

Open access

Overview

Open journals

Open Select

Cogent OA

Connect with Taylor & Francis











Copyright © 2018 Informa UK Limited Privacy policy & cookies Terms & conditions Accessibility

Registered in England & Wales No. 3099067 5 Howick Place | London | SW1P 1WG