### Author's Accepted Manuscript

ANTIBACTERIAL ACTIVITY OF IRRADIATED EXTRACTS of Anacardium occidentale L. on MULTIRESISTANT STRAINS OF Staphylococcus aureus



Gustavo Henrique Farias dos Santos, Ademir Amaral, Edvane Borges da Silva

 PII:
 S0969-8043(17)30787-X

 DOI:
 https://doi.org/10.1016/j.apradiso.2018.07.035

 Reference:
 ARI8440

To appear in: Applied Radiation and Isotopes

Received date: 29 June 2017 Revised date: 19 November 2017 Accepted date: 29 July 2018

Cite this article as: Gustavo Henrique Farias dos Santos, Ademir Amaral and Edvane Borges da Silva, ANTIBACTERIAL ACTIVITY OF IRRADIATED EXTRACTS of *Anacardium occidentale* L. on MULTIRESISTANT STRAINS O F *Staphylococcus aureus*, *Applied Radiation and Isotopes*, https://doi.org/10.1016/j.apradiso.2018.07.035

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

#### **ACCEPTED MANUSCRIPT**

# **ANTIBACTERIAL ACTIVITY OF IRRADIATED EXTRACTS of** Anacardium occidentale L. on MULTIRESISTANT STRAINS OF Staphylococcus aureus

#### Gustavo Henrique Farias dos Santos<sup>1</sup>, Ademir Amaral<sup>1</sup> and Edvane Borges da Silva<sup>1,2</sup>

<sup>1</sup> Grupo de Radioproteção e Radioecologia-GERAR,
 Universidade Federal de Pernambuco/Departamento de Energia Nuclear
 Av. Prof. Luiz Freire, 1000. Cidade Universitária, Recife - Brasil. CEP. 50740-540
 <sup>2</sup> Centro Acadêmico de Vitória, Rua do Alto do Reservatório, s/n - Bela Vista - Vitória de Santo Antão,
 CEP 50670-901, PE, Brasil.

\* Corresponding author. Tel.: 55- 081 -999465120, E-mail address: edvborges@yahoo.com (Edvane Borges)

#### Abstract

This study evaluated the antibacterial activity of crude and fractionated leaf extracts of *Anacardium occidentale*, after receiving 10 kGy from  $^{60}$ Co, against multiresistant strains of *Staphylococcus aureus* in vitro. Minimum Inhibitory Concentrations-MIC and Minimum Bacteriostatic Concentrations-MBC were respectively assessed by serial microdilution technique in multiwall plates and Petri dishes, against standard strains and clinical isolates of multiresistant *S. aureus*. The results pointed out a significantly increase of the antibacterial activity of the such extracts after irradiation, emphasizing the role of gamma radiation on leaf extracts of *A. occidentale* to improve bioactive substances, offering new raw material for antibacterial drugs.

Key words: gamma irradiation; antibacterial activity; Anacardium occidentale L.; antibacterial agents; Staphylococcus aureus.

Download English Version:

## https://daneshyari.com/en/article/8208440

Download Persian Version:

https://daneshyari.com/article/8208440

Daneshyari.com