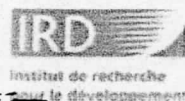




VIII SIMPOSIO INTERNACIONAL DE QUÍMICA DE PRODUCTOS NATURALES Y SUS APLICACIONES
División de Química de Productos Naturales Sociedad Chilena de Química



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employing Design Expert Software (DES) [3]. Results showed that the optimal values of ET and DIS were 5 min and 6.06-6.43 cm with a Desirability factor of 0.989. In addition, time-kill assays and confocal microscopy after vital staining [4, 5] could demonstrate that α -T plus UV-A light, at the optimal conditions, caused a complete reduction of viable cells in 5 min. In another set of experiments, it could be demonstrated that the germ tube formation of *C. albicans* was inhibited by sub-inhibitory concentrations of α -T [6]. These data provide evidence that α -T plus UV-A light could constitute an alternative for OPC treatments at the optimal conditions determined with DES.

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P-168

Flour from *Prosopis alba* seeds could be used as functional food or dietary supplement

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In Argentina, the pods of *Prosopis alba* are used as a source of food products (syrup, flour, sweets such as arropo, patay and jam) and drinks (añapa, aloja and chicha). According to the "Código Alimentario Argentino", "algarrobo flour" is produced by grinding of whole mature pods of *Prosopis alba* and *P. nigra* but until this moment most of the seed is discarded and only the mesocarp is used in the grinding traditional process. The aim of this paper was to determine the nutritional quality, phytochemical composition and biological properties of *Prosopis alba* seed flour to promote its use. Crude protein was the major component of cotyledon flour (62 %). Furthermore, the flour showed low level of carbohydrate and fat. The main fatty acids were linoleic (60.62%), oleic (18.08%) and palmitic (15.87%). As regards minerals, the flour was high in K and P and low in Na. Further, the cotyledon flour could be considered a "source of fiber" due to its high content (9%). Carotenoids (10%) and phenolic compounds (11%) were the dominant phytochemical. The extract enriched in free phenolic compounds obtained from flour exhibited ABTS•+ reducing capacity and scavenging activity of H₂O₂ and was able to inhibit three pro-inflammatory enzymes of the araquidonic acid metabolism. The extract was more effective to inhibit cyclooxygenase-2 and lipoxygenase enzymes than phospholipase A₂ enzyme. The results suggest that due to its nutritional and functional properties, *P. alba* cotyledon flour could be considered a new alternative in the formulation of foods or food supplements, alone or combined with cereal proteins.

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