**RESULTS**

**Table S1**

Hydrophilic (HAA), Lipophilic (LAA) and total antioxidant (TAA) activities in Chaga (*Inonotus obliquus*) at Various pH values and Temperature treatments

|  |  |  |  |
| --- | --- | --- | --- |
| **Antioxidant activities’ values** (μM TE/g Chaga DW) | | | |
| **pH and temperature treatment** | **HAA** | **LAA** | **TAA** |
| pH 2.5 at 60° | 106.35± 2.98 e | 11.36±1.02 c | 117.72± 3.13 e |
| pH 2.5 at 100° | 149.59±2.63 c | 14.59±0.31 b | 164.18±2.85 c |
| pH 7 at 60° | 92.40±1.35 f | 9.86±0.06d | 102.27±1.39 f |
| pH 7 at 100 ° | 143.36±1.91 c | 14.09± 0.34 b | 157.46± 1.97 c |
| pH 9.5 at 60° | 119.87± 1.55 d | 14.65 ± 0.23 b | 134.52± 1.74 d |
| pH 9.5 at 100° | 192.10± 3.30 b | 12.49± 0.14 c | 204.59 ± 3.24 b |
| pH 11.5 at 100° | 342.85±3.62 a | 28.01±0.37 a | 370.86±3.81 a |

*Note: Values (μmol Trolox equivalent/DW g of Chaga extract) represents means ± standard errors. Means that are within the same column and contain different letters indicate a significant difference between the treatments, LSD=0.05, n=4 per each replicate of the sample. HAA= hydrophilic antioxidant activity, LAA= lipophilic antioxidant activity, TAA= total antioxidant activity. Each sample is at a different pH (2.5, 7, 9.5, and 11.5) and temperature (60 ° and 100°).*

**Table S2**

Hydrophilic (HPC), Lipophilic (LPC)and total phenolic content (TPC) in Chaga (*Inonotus obliquus*) at various pH values and Temperature treatments

|  |  |  |  |
| --- | --- | --- | --- |
| Phenolic Content (μM QE/per g Chaga) | | | |
| pH and temperature treatment | HPC | LPC | TPC |
| pH 2.5 at 60 ° | 73.83±3.30bc | 57.13±1.97 a | 130.95±4.18 b |
| pH 2.5 at 100° | 67.04±4.57 c | 53.71±0.54ab | 120.75±4.24 b |
| pH 7 at 60° | 56.00±5.12 d | 52.75±0.90 b | 108.32±4.83 c |
| pH 7 at 100° | 69.79±2.62 bc | 52.83±1.62 b | 122.62±2.14 b |
| pH 9.5 at 60 ° | 79.50±2.11 b | 48.05±0.31 c | 127.56±2.32 b |
| pH 9.5 at 100 ° | 55.22±3.69 d | 48.21±1.95 c | 103.43±4.48 c |
| pH 11.5 at 100° | 224.38±2.60 a | 48.67±0.68 c | 273.06±2.19 a |

*Note:* Values (μmol Quercetin equivalent/ DW g of Chaga extract) represents means ± standard errors. Means that are within the same column and contain different letters indicate a significant difference between the treatments, LSD=0.05, n=4 per each replicate of the sample. HPC= hydrophilic phenolic content, LPC= lipophilic phenolic content, TPC= total phenolic content. Each sample is at a different pH (2.5, 7, 9.5, 11.5) and temperature (60°C and 100°C).