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Yuwei Wang, Guangxiang Luan, Wu Zhou, Jing Meng, Honglun Wang, Na Hu, Yourui Suo

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Yuwei Wang [a,b,c], Guangxiang Luan[a,b,c], Wu Zhou [a,b,c], Jing Meng [a,c], Honglun Wang [a,b], Na Hu [a,b*], Yourui Suo[a,b]*

[a]Qinghai Key Laboratory of Qinghai-Tibet Plateau Biological Resources, Northwest Institute of Plateau Biology, Chinese Academy of Sciences, Xining, P. R. China

[b]State Key Laboratory of Plateau Ecology and Agriculture, Qinghai University, Xining, P. R. China

[c]University of the Chinese Academy of Sciences, Beijing, P. R. China

*Address correspondence to these two authors:

23 Xin'ning Road, Xining, Qinghai, 810008 P.R. China, E-mail: huna@nwipb.cas.cn, Telephone: +8618797320636 (Na Hu); E-mail: yrsuo@nwipb.cas.cn, Telephone: +8609716143857 (Yourui Suo)

Abstract: In this work, it has been developed an efficient method for extraction of anthocyanin from *Lycium Ruthenicum* Murr. and the antioxidative activities research. Subcritical water extraction was investigated as a green technology for the extraction of anthocyanin from *L. ruthenicum*. Several key parameters affecting extraction efficiency were investigated and optimized by response surface methodology (RSM) combined with Box-Behnken design (BBD). The optimum extraction conditions and the desirability of model were the time of extraction = 55 minutes and the flow rate was 3mL/min at 170 ◦ C. At this operating condition, the content of anthocyanin was