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**PENGARUH VARIASI PELARUT TERHADAP AKTIFITAS ANTIOKSIDAN EKSTRAK BUAH PARIJOTO (*Medinilla speciosa* B.) ASAL BANDUNGAN SECARA SPEKTROFOTOMETRI UV-VIS**

**(xiii halaman depan + 60 halaman isi + 16 gambar + 8 tabel + 28 lampiran)**

**ABSTRAK**

**Latar Belakang** : Parijoto telah diketahui memiliki berbagai kandungan yang bermanfaat seperti tanin, flavonoid, saponin dan sebagainya. Ekstraksi senyawa aktif seperti flavonoid dalam tumbuhan sering dilakukan menggunakan ekstraksi pelarut. Pelarut yang dipilih dilihat dari faktor tertentu seperti harga, kepolaran, toksisitas, sifat pelarut, dan lain sebagainya. Penelitian ini bertujuan untuk mengetahui pengaruh pelarut terhadap hasil flavonoid total dan aktivitas antioksidan ekstrak buah parijoto.

**Metode** : Penelitian yang dilakukan merupakan ekperimental laboratorium. Ekstraksi dilakukan dengan metode remaserasi dengan pelarut pelarut etil asetat, etanol 96%, dan aquadest. Uji kadar flavonoid dengan penambahan  $AlCl_3$  10% dan 8 ml asam asetat 5% serta uji aktivitas antioksidan dengan metode 2,2-Difenil-1-PikrilHidrazil (DPPH), menggunakan spektrofotometer UV-Vis. Parameter uji antioksidan berdasarkan nilai  $IC_{50}$ .

**Hasil** : Kadar flavonoid secara berurutan yang tertinggi hingga terendah adalah etil asetat (65,44 mg QE/g), etanol 96% (47,64 mg QE/g), dan aquadest (21,773 mg QE/g). Nilai  $IC_{50}$  ekstrak buah Parijoto (*Medinilla speciosa* B.) dengan pelarut etil asetat, etanol 96% serta aquades berturut-turut 7,760 ppm, 8,650 ppm, dan 23,778 ppm. Ketiga hasil uji aktivitas antioksidan menunjukkan bahwa ketiganya masuk ke dalam kategori antioksidan sangat kuat.

**Kesimpulan** : Variasi pelarut mempengaruhi hasil dari rendemen, kadar flavonoid dan  $IC_{50}$  ekstrak buah parijoto. Data persentase rendemen paling banyak ekstrak dengan pelarut aquadest (20,779%) daripada pelarut etanol (12,991%) dan etil asetat (8,236%) namun pelarut etil asetat memiliki kadar flavonoid (47,64 mg QE/g) dan  $IC_{50}$  (7,760 ppm) tertinggi dibandingkan flavonoid dan  $IC_{50}$  etanol 96% (47,64 mg QE/g dan 8,650 ppm) serta aquadest (21,773 mg QE/g dan 23,778 ppm)

**Kata kunci** : Parijoto, DPPH, Flavonoid, Antioksidan,  $IC_{50}$

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**SOLUTION VARIATIONS EFFECT OF ANTIOXIDANT ACTIVITY  
FROM PARIJOTO (*Medinilla speciosa* B.) FRUIT EXTRACT OF  
BANDUNGAN ORIGIN BY UV-VIS SPECTROPHOTOMETRY METHOD**

**(xiii of front pages + 60 of content pages + 16 of images + 8 of tables + 28 of attachments)**

**ABSTRACT**

**Background :** Parijoto has been known to have various beneficial contents such as tannins, flavonoids, saponins and so on. Extraction of active compounds such as flavonoids in plants is often extracted using solvent extraction. Solvents are selected based on certain factors such as price, polarity, toxicity, nature of the solvent, and others. This study aims to determine the effect of solvent variation on the flavonoid and antioxidant activity of parijoto fruit extract.

**Method :** This research is a laboratory experiment. Extraction was carried out by maceration method with ethyl acetate, ethanol 96%, and aquadest as solvent. Flavonoid level test used with addition of 10% AlCl<sub>3</sub> and 8 ml 5% acetic acid along with the antioxidant activity test using the 2,2-Diphenyl-1-PikrylHidrazil (DPPH) method. utilizing a UV-Vis spectrophotometer. Antioxidant test parameters based on IC<sub>50</sub> value.

**Results :** The flavonoid levels, from the highest to the lowest, were ethyl acetate (65,44 mg QE/g), ethanol 96% (47,64 mg QE/g), and aquadest (21,773 mg QE/g). The IC<sub>50</sub> value of Parijoto fruit extract (*Medinilla speciosa* B.) with ethyl acetate, 96% ethanol and aquades solvent respectively 7.760 ppm, 8.650 ppm, and 23,778 ppm. The three antioxidant activity test results show that all three are included in the category of very strong antioxidants.

**Conclusion :** The solvent variation affects the result of flavonoid content and IC<sub>50</sub> of parijoto fruit extract. Yield percentage data shows that the most extracts is with aquadest solvent (20.779%) then ethanol (12.991%) and ethyl acetate (8.236%) solvents but ethyl acetate solvent has the highest flavonoid content (47.64 mg QE/g) and IC<sub>50</sub> (7.760 ppm) compared to flavonoids and IC<sub>50</sub> ethanol (47.64 mg QE/g and 8.650 ppm) and aquadest (21.773 mg QE/g and 23,778 ppm)

**Key words : Parijoto, DPPH, Flavonoid, Antioxidant, IC<sub>50</sub>**