

論文審査の要旨  
Summary of Dissertation Review

博士の専攻分野の名称 Degree	博 士 (学術)	氏名 Author	YUSUF ANDRIANA
学位授与の要件	学位規則第4条第①・2項該当		
論文題目 Title of Dissertation Study on the Chemical Constituents from <i>Tridax procumbens</i> L., <i>Piper cubeba</i> Bojer, and <i>Piper nigrum</i> L. in Indonesia and their Biological Activity			
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〔論文審査の要旨〕 Summary of Dissertation Review			
<p>This research was carried out to isolate, identify, and quantify bioactive chemicals from three tropical plants originated from Indonesia, including <i>Tridax procumbens</i> L., <i>Piper cubeba</i> Bojer, and <i>Piper nigrum</i> L. The thesis includes 6 Chapters. Chapter 1: Introduction. Chapter 2: Allelopathic potential of <i>Tridax procumbens</i> L. on radish and allelochemicals identification. Chapter 3: Phenolic acids and dimethyl sulfone as plant growth inhibitors from <i>Tridax procumbens</i> L; Chapter 4: Antihyperuricemic, antioxidant, and antibacterial activities of <i>Tridax procumbens</i> L; Chapter 5: Biological activities and chemical constituents of essential oils from <i>Piper cubeba</i> Bojer and <i>Piper nigrum</i> L. Chapter 6: General discussion and conclusions.</p> <p>He used different modern analytical instruments including column chromatography, HPLC, GC-MS, LC-MS, IR, and NMR to identify major bioactive constituents in these plants. The biological activities of these isolated compounds including plant growth inhibitory, antioxidant, antibacterial, antihyperuricemic, and xanthine oxidase inhibitory activities. Promising compounds including phenolic acids, phenols, monoterpenes and fatty acids were identified and quantified, which are concluded to be responsible for the biological activities of <i>T. procumbens</i>, <i>P. cubeba</i>, and <i>P. nigrum</i>.</p> <p>From achievements of this research, the applicant Yusuf Andriana has published 3 papers in international journals, including Allelopathy Journal (IF: 0.729), Foods (IF: 3.011), and Molecules (IF: 3.060). After carefully examined the results from presentation, graduate thesis, achievements, and the responses on the questions raise from the examiners. The judged committee has agreed that the applicant passed the exam.</p>			