

**UNDERGRADUATE RESEARCH THESIS**

**EFFECT OF COBALT IMPREGNATION METHODS ON  
PARANGTRITIS SAND TOWARDS CATALYSTS ACTIVITY IN  
HYDROCRACKING OF DEGUMMED LOW-QUALITY UJUNG KULON  
MALAPARI OIL INTO BIOHYDROCARBONS**

***PENGARUH METODE IMPREGNASI KOBALT PADA PASIR PANTAI  
PARANGTRITIS TERHADAP AKTIVITAS KATALIS DALAM  
HIDRORENGKAH DEGUMMED MINYAK MALAPARI UJUNG KULON  
KUALITAS RENDAH MENJADI BIOHIDROKARBON***



Jason Purbonegoro

19/438463/PA/18921

**CHEMISTRY STUDY PROGRAM  
DEPARTMENT OF CHEMISTRY  
FACULTY OF MATHEMATICS AND NATURAL SCIENCES  
UNIVERSITAS GADJAH MADA  
YOGYAKARTA**

**2023**

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Submitted to fulfill one of the requirements to obtain

Bachelor of Science in Chemistry



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**RATIFICATION PAGE**

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It has been prepared and compiled by

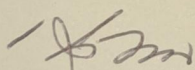
**JASON PURBONEGORO**

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Has been defended in front of the Testing Team

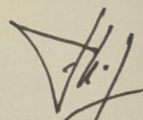
on July 11<sup>th</sup> 2023

Test Team Composition



Prof. Dr. Triyono, S.U.

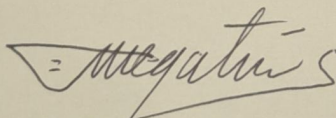
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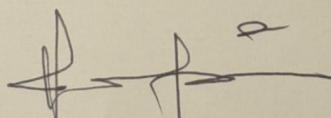
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Examiner 2

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a.n. Dekan FMIPA UGM

Wakil Dekan Bidang Pendidikan, Pengajaran  
dan Kemahasiswaan

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