

DEPARTMENT OF MATHEMATICS

**EXPERIMENTAL DESIGN**

**FOR ANALYSIS OF PHARMACEUTICAL SUBSTANCES**

**BY HPLC**

**B\*\*\*\* K\*\*\*\*\***

**08024060**

UNDERGRADUATE THESIS

**ADVISOR**

**Prof. Dr. \*\*\*\*\* \*\*\*\***

May, 2025



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**LIST OF SYMBOLS**

Ai Activities of Daily Life

C Alternate Step Test

C Body Mass Index

CR Cross Step moving on Four Stops

*f c*(.) Dynamic Bayesian Networks

*\_H* Demura’s Fall Risk Assessment Chart

*\_i* Electromyography

**LIST OF ABBREVIATIONS**

ADL Activities of Daily Life

AST Step Test

BMI Body Mass Index

CSFT Cross Step moving on Four Stops

DBN Dynamic Bayesian Networks

DFRAC Demura’s Fall Risk Assessment Chart

EMG Electromyography

FEUP Faculdade de Engenharia da Universidade do Porto

FPRI Fall Prediction and Risk Index

FR Fall Probability

FRI Fall Risk Index

GDP Gross Domestic Product

GUGT Get-Up-ang-Go Test

LABIOMEP Laboratório de Biomecânica do Porto

MEMs Micro-Electromechanics

MTC Minimum Toe Clearance

PCA Principal Components Analysis

PPA Physiological Profile Assessment

PPP Purchasing Power Parities

SMWT Six Meter Walking Test

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ABSTRACT

**Undergraduate Thesis Title**

Student Name-Surname

Chemistry Department Undergraduate Thesis

Advisor: Title, Name-Surname

The summary of the thesis study is written….

**Keywords:** Thesis content, keyword.

ÖZET

**Bitirme Çalışması Başlığı**

Öğrenci Adı-Soyadı

Kimya Bölümü Lisans Bitirme Tezi

Danışman: Ünvan, Adı-Soyad

Tez çalışmasının özeti yazılır….

**Anahtar Kelimeler:** Tez içeriği, anahtar kelime.

1. Introduction
   1. Literature Review

### Asdfsa

#### Subtitle

* 1. Purpose of the Thesis

1. General Information
   1. Subtitle
   2. ….
2. Results and Discussion

References

Alfabetik sırada

Adhikari, B., Majumdar, S., (2004). “Polymers in Sensor Applications”, Prog. Polym. Sci., 29, 699–766.

Eggins, R. B., (2000). Chemical Sensors and Biosensors, John Wiley & Sons, Ltd., New York.

Jaruwongrungsee, K., Tuantranont, A., Wanna, Y., Wisitsoraat, A., Lomas, T., (2007). “Quartz Crystal Microbalance Humidity Sensor Using Electrospun PANI Micro/nano Dots”, Proceedings of the 7th IEEE International Conference on Nanotechnology, 4–6 August 2007, Hong Kong.

Lange, U., Roznyatovskaya, N.V., Mirsky, V.M., (2008). “Conducting Polymers in Chemical Sensors and Arrays”, Analytica Chimica Acta, 614, 1-26.

**Internet References**

[1] Gamry Instruments, Basics of Electrochemical Impedance Spectroscopy, [http://www.gamry.com/application-notes/basics-of-electrochemical-impedance- spectroscopy/](http://www.gamry.com/application-notes/basics-of-electrochemical-impedance-%20spectroscopy/), 19 Şubat.2014.

[2] Gamry Instruments, Equivalent Circuit Modeling Using the Gamry EIS300 Electrochemical Impedance Spectroscopy Software, http://www.gamry.com/application-notes/equivalent-circuit-modeling-using-the-gamry-eis300-electrochemical-impedance-spectroscopy-software/, 19 Şubat 2014.

Attachments

Curriculum Vitae