41 rue Garibaldi – 69006 LYON

Valérie Thoraval
04.72.32.50.60

contact@cpe-formation.fr
cpe-formation.fr

BIOTECHNOLOGIES

INTRODUCTION TO FERMENTATION – SESSION IN ENGLISH

OBJECTIFS

Introduce the fundamentals of microbial growth as a basis for understanding industrial fermentation technologies.
Provide hands-on training in conducting fermentation processes at the laboratory scale..
Participants should have prior knowledge of aseptic practices and a sufficient mathematical background (including logarithmic functions).

CONTENU PÉDAGOGIQUE

/ THEORY

Biological material

- Microbial strains: bacteria, yeasts, molds
- Nutrition and growth

Operation of fermenters

Kinetics

- Biomass production
- Metabolite production
- Substrate consumption
-

Production curves and calculations

- Analysis of production curves
- Calculation of representative culture parameters
- Yield and productivity calculations

Industrial applications of fermentation

Industrial fermenters and maintenance

/ PRACTICAL WORK

- Operation of laboratory fermenters
- Monitoring a culture in a fermenter: biomass and/or metabolite production
- Use of biological material: bacteria and/or yeast
- Physico-chemical monitoring: pH, temperature, oxygen...
- Microbiological monitoring: biomass estimation
- Biochemical monitoring: substrate/metabolite follow-up
- Case studies of common process malfunctions

DURÉE
4.5 days – 32 hours

SESSIONS

- 2 - 6 (am) février 2026 en présentiel à Lyon

FRAIS D'INSCRIPTION (DÉJEUNER INCLUS)

€ 2,375 (excluding VAT)

PRÉREQUIS & PUBLIC CONCERNÉ

Technicians or any professionals wishing to learn about the implementation and operation of fermentation processes.

Coordonnées

CPE Lyon Formation Continue

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