

University POLITEHNICA of Bucharest  
Faculty of Applied Chemistry and Materials Science  
Doctoral School "Applied Chemistry and Materials Science"

## **Agreement of Ph.D. study co-supervision**

### **Art. 1. Agreement parties**

University POLITEHNICA of Bucharest, represented by Rector MIHNEA COSTOIU and  
Institute Pascal Clermont Ferrand, represented by Pr. Michel Dhome, agreed to sign this  
contract.

### **Art. 2. Contract purpose**

Co-supervision of the Ph. D. studies of TRICA BOGDAN, enrolled for doctoral studies at  
University POLITEHNICA of Bucharest in the fundamental domain Engineering Sciences,  
doctoral domain Chemical Engineering, on the thesis entitled: Characterization and modeling  
of separation processes in the processing of the algae extracts

### **Art. 3. Co-supervisors of doctoral activities**

- a. Prof. dr. eng Tanase Dobre, from University POLITEHNICA of Bucharest
- b. Prof. dr. eng Gholamreza Djelveh from Ecole Nationale de Chimie de Clermont Ferrand

### **Art. 4. Schedule of activities**

#### **a. At University POLITEHNICA of Bucharest**

- 1. Examination: Mass Transfer and Specific Equipment (Dec. 2015,)
- 2. Examination: Membrane Separation Processes (Feb. 2016)
- 1. Scientific Rapport 1: Considerations Regarding the Extraction of Useful Compounds from Algae and Microalgae (May. 2016)
- 2. Scientific Rapport 2: Role of Cell Membrane for Extraction Dynamic of Useful Compounds from Algae and Microalgae (Fev. 2017)
- 3. Scientific Rapport 3: Modeling and experimental investigation of membrane clogging at ultrafiltration of primary extracts from algae (Nov 2017)
- 4. Scientific Rapport 4: Separation of Polysaccharides and Proteins from the Permeate of Ultrafiltered Algae and Microalgae Extracts (Modeling of Proteins Separation by Chromatography) (Fev. 2018)
- 5. Scientific Rapport 5: Integrated recovery processes from algae and microalgae biomass (May 2018)

#### **b. At University Blaise Pascal/ Ecole Nationale de Chimie Clermont Ferrand**

- 1. Experimental Research Internship on Species Extraction from Macrophyte Cystoseira Barbata (Fev – May 2017)
- 2. Experimental Research Internship on processing by ultrafiltration of extractes from Macrophyte Cystoseira Barbata

(November 2017)

3. Experimental Research Internship on Integrated Processing of extractes from Macrophyte *Cystoseira Barbata*  
( Jan - Apr. 2018)

**Art. 5. Administrative and financial issues**

a. The enrolment of the Ph. D. student was done at University POLITEHNICA of Bucharest.

b. The defence of the Ph. D. thesis is due till 15.09.2018

c. The Ph. D. thesis will be defended at the University POLITEHNICA of Bucharest, against a jury nominated according to the Ph. D. rules and regulations of University POLITEHNICA of Bucharest.

d. The Ph. D. degree will be recognised by the proper authorities from both countries (Romania and France) according to their competences and conforming to the legal stipulations operational in both countries.

e. The costs of the doctoral studies during the Romanian stage will be financed from the project *Budget for PhD studies of UPB*, while during the stage abroad the costs will be supported from the project *Erasmus Agreement U.P.Bucuresti-E.N.S.Ch Clermont Ferrand*, for the Romanian part (including transportation), and from Brancusi bilateral mobilities contract 79 BM/2017-2018 ( from the french part director Prof R. Djelveh, from the romanian part director Prof T. sDobre)

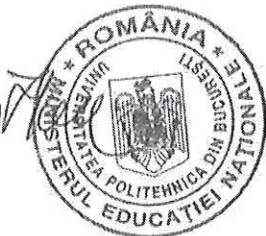
f. The research activity aimed to finish the Ph. D. thesis.

University POLITEHNICA of Bucharest

University Blaise Pascal

Rector,

MIHNEA COSTOIU



Dean,

Prof.dr.eng. Cristina Orbeci

Head of Doctoral School,

Prof. dr. eng. Vasile Lavric

Supervisor,

Prof. dr. eng. Dobre Tanase

INSTITUT PASCAL

UMR 6602

Université Blaise Pascal

CNRS/IFMA

24 avenue des Landais - BP 8002

63171 AUBIERE CEDEX

Tél. : 04 73 40 72 50

Mel : [ip.dir@univ-bpclermont.fr](mailto:ip.dir@univ-bpclermont.fr)

<http://www.ip.univ-bpclermont.fr>

MICHEL DHOUME  
Directeur de l'Institut Pascal

Supervisor,

Prof. dr. eng. Gholamreza Djelveh