Fatma AROUS PhD Student

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Education & credentials

Current activities

Phd Student: Thesis in Biology

National School of Engineers of Sfax-Tunisia

Subject: The agrifood waste as substrate for single cell oil production by newly isolated yeast strains.

First registration: March 2013

Diplomas

2009-2011: Research Master Diploma in Environmental Biotechnology

Higher Institute of Biotechnology of Sfax -Tunisia

2008-2009: National Diploma in Agricultural Engineering

National Agronomy Institute. Tunis-Tunisia

2005-2006: First cycle of university Diploma (DEUPC)

Preparatory Institute for Engineering Studies of Sfax (IPEIS), Tunisia.

National competition for entrance to engineering studies cycles

Biology & Geology Competition

2003-2004: Baccalaureate diploma in Experimental Sciences

Abou El Hassan Ellakhmi School. Sfax Tunisia

<u>Skills</u>

- Micro propagation by axillary budding.
- Germination of seeds *In Vitro* and *Ex vito*.
- Extraction of volatile compounds from olive oil.
- Physico-chemical analysis of olive oil.

• Physico-chemical analysis of soil: nitrogen, phosphorus, dosage of minerals and heavy metals, BOD5, COD, MS, MO ...

• Microbiology skills: aseptic and sterile techniques, optical microscopy, bacterial staining, plating methods (streak, spread, pour, replica), enumeration and identification of bacteria, use of biological safety cabinets, media and buffer preparation, water sample analysis by membrane filtration and MPN, food microbiology, diagnostic biochemical tests for enteric bacteria, use of selective media

Internships Accomplished

- Three versatile internships: "GHORBEL brothers" farm. Sfax Tunisia: Participate in various activities on the farm: Breastfeeding cows, vegetable growing (fertilization treatment plant, irrigation, crop ...), glasshouse...
- An Internship in Technology and quality Laboratory :" Institute of Olive Tree " of Sfax

Lipogenesis Evaluation of hybrid variety of "Chemlali" using nuclear magnetic resonance spectroscopy (NMR).

• Training in breeding laboratory of olive, pistachio and almond : "Institute of Olive tree " of Sfax

Master of all stages of *in vitro* culture (culture medium preparation, disinfection, cultivation): Germination and micro propagation by axillary budding.

• Internship in Environmental Bioprocesses Laboratory: Center of Biotechnology of Sfax

Study of the bio-fertilizer's potential of compost, manure and digestate: Effect on soil and phytotoxicity.

Physico-chemical analysis of soil: nitrogen, phosphorus, dosage of minerals and heavy metals, BOD5, COD, MS, MO..... and microbiological analysis (total bacteria, total coliforms, yeasts and molds, heat resistant bacteria). Phytotoxicity test of bio wastes.

Languages: Arabic: Maternal French: Fluent English: Average

Computer Skills: Word, Excel, Power point

Publications in peer-reviewed journals:

- Ali Mekki, **Fatma Arous**, Fathi Aloui and Sami Sayadi, (2013). Agro wastes valorization in soil and plants fertilisation. *Greener Journal of Agricultural Sciences* (*in press*)
- Ali Mekki, Fatma Arous, Fathi Aloui and Sami Sayadi (2013). Disposal of agroindustrials wastes as soil alendments. *American Journal of Enviromental Science 9* (6), 458-469