Curriculum vitae

PERSONAL INFORMATION

Ouarda DJAOUDENE, PhD
Grade : Maître de Recherche Classe A
Division de rattachement : Biologie et Chimie Alimentaire (BCA)
ouarda.djaoudene@crtaa.dz
https://scholar.google.com/citations?view_op=list_works&hl=fr&user=OF_d3fwAAAAJ
https://www.researchgate.net/profile/Ouarda-Djaoudene
https://orcid.org/0000-0003-0572-8386
https://www.webofscience.com/wos/author/record/MGW-3218-2025

EDUCATION

2015 – 2021 **PhD in Food Science**

University of Bejaia (Algeria)
Route de Targua Ouzmour, 06000 Bejaia (Algeria)
Thesis title: "Physico-chemical characterization, biological properties and study of the impact of *in vitro* gastrointestinal digestion on the bioactivity of phenolic extracts of eight date cultivars, case: fruit and seed".
Specialty: Food and Food Technology

2012 – 2015 **Master of Food Science**

University of Bejaia (Algeria)
Route de Targua Ouzmour, 06000 Bejaia (Algeria)
Search topic: "Study of the evolution of the composition and the antioxidant properties of orange and apple jams during storage".
Specialty: Food and Food Technology

2007 – 2012 **Engineer of Food Science**

University of Bejaia (Algeria)
Route de Targua Ouzmour, 06000 Bejaia (Algeria)
Specialty: Food Science

2006 – 2007 **Baccalaureate of Secondary Education**

Mixed high school of TAZMALT, Bejaia (Algeria)
Education field: Natural and Science Life

WORK EXPERIENCE & TRAINING

Since Jun 2022 **Researcher in Food and Food Technology**

Agri-Food Technology Research Centre (CRTAA)
Route de Targa Ouzemmour, Campus universitaire, 06000 Bejaïa, Algeria
https://crtaa.dz/

2021 – 2022 **Adjunct lecturer at University of Bejaia**

Taught and supervised practical sessions in animal and plant biology
Common Core Department, Faculty of Natural and Life Sciences

2018 – 2019 **Biotechnology laboratory**

30 days traineeship. University Algarve, Portugal
• Evaluation of biological and pharmacological activities
• *In vitro* gastrointestinal digestion

2017 – 2018 **Pharmaceutical Sciences Laboratory**

90 days traineeship. University San Jorge Zaragoza, Spain
• Evaluation of biological and pharmacological activities
• Measurement of enzyme inhibitory activities

2016 – 2017 **Quality Control and Food Safety Laboratory**

30 days traineeship. University Federico II Napoli, Italy
• Characterization and identification of phenolic compounds by HPLC-DAD-MS
• Evaluation of some enzymatic activities

2012 – 2013 **Intern at quality control laboratory service of the dairy**

SARL Ramdy, AKBOU, Bejaia (Algeria)

• Quality control of finished products (milk, yogurt, cheese)
• Quality control of the raw material
• Monitoring of industrial production processes

2011 – 2012 **Intern at quality control laboratory service of the oil refinery**

Cevital SPA, nouveau quai de Bejaia, 06000 Bejaia (Algeria)

• Quality control of finished products (edible oil, margarine)
• Quality control of the raw material
• Monitoring of industrial production processes
• Quality control of packaging and packaging products

2009 – 2010 **Intern at quality control laboratory service of the beverage's products**

SARL eau de la vallée, TAZMALT, Bejaia (Algeria)

• Quality control of finished products
• Quality control of the raw material
• Monitoring of industrial production processes

ADDITIONAL INFORMATION

Publications

Djaoudene, O. & Louaileche, H. (2016). Impact of storage conditions on the bioactive compounds and antioxidant capacity of commercial orange jam. Journal Analytical and Bioanalytical Separation Techniques 1(1):1-4.

Djaoudene, O. & Louaileche, H. (2016). effect of storage time and temperature on the nutritional quality of commercial orange jam. Journal of Food Science and Technology 1(2):1-7.

Djaoudene, O. & Louaileche, H. (2018). Optimization of a green ultrasound-assisted extraction of phenolics and in vitro antioxidant potential of date fruit (*Phoenix dactylifera* L.). The Annals of the University Dunarea de Jos of Galati Fascicle VI – Food Technology 42(1), 109-122.

Djaoudene, O., López, V., Cásedas, G., Les, F., Schisano, C., Bachir bey, M. & Tenore, G.C. (2019). *Phoenix dactylifera* L. seeds: A by-product as a source of bioactive compounds with antioxidant and enzyme inhibitory properties. Food & Function, 10 (8), 4953-4965.

Djaoudene, O., Bachir bey, M. & Louaileche, H. (2019). Physicochemical Characteristics and Nutritional Compositions of Some Date (*Phoenix dactylifera* L.) Fruit Cultivars. Acta Universitatis Cibiniensis. Series E: Food Technology, 23 (2), 129-138.

Djaoudene, O., Mansinhos, I., Gonçalves, S., Jara-Palacios, J.M., Bachir bey, M. & Romano, A. (2020). Phenolic profile, antioxidant activity and enzyme inhibitory capacities of fruit and seed extracts from different Algerian cultivars of date (*Phoenix dactylifera* L.) were affected by in vitro simulated gastrointestinal digestion. South African Journal of Botany, 137, 133-148.

Boudjouan, F., Zeghbib, W., Bachir bey, M., **Djaoudene, O**., Elothmani, D., Bououdina, M., & Louaileche, H. (2021). Extraction methods comparison for polyphenols recovery and antioxidant activity from *opuntia ficus* indica's seeds. Studia Universitatis Vasile Goldis Seria Stiintele Vietii (Life Sciences Series), 31 (4).

Djaoudene, O., Romano, A., Bradai, Y. D., Zebiri, F., Ouchene, A., Yousfi, Y., Meriem Amrane-Abider, M., Sahraoui-Remini, Y., & Madani, K. (2023). A Global Overview of Dietary Supplements: Regulation, Market Trends, Usage during the COVID-19 Pandemic, and Health Effects. Nutrients, 15(15), 3320.

Taouzinet, L., **Djaoudene, O.,** Fatmi, S., Bouiche, C., Amrane-Abider, M., Bougherra, H., Rezgui, F., & Madani, K. (2023). Trends of Nanoencapsulation Strategy for Natural Compounds in the Food Industry. Processes, 11 (5), 1459.

Djebari, S., Wrona, M., Nerin, C., **Djaoudene, O.,** Guemouni, S., Boudria, A., & Madani, K. (2023). Phenolic compounds profile of macerates of different edible parts of carob tree (*Ceratonia siliqua* L.) using UPLC-ESI-Q-TOF-MSE: Phytochemical screening and biological activities. Fitoterapia, 105696.

Amrane-Abider, M., Zemouri-Alioui, S., Khaled, S., & **Djaoudene O.** (2023). Immature *Opuntia ficus*-indica peel by-product as mayonnaise additive and natural anticoccidial drug. Biology and Life Sciences Forum.

Djaoudene, O., Bachir-bey, M., Cásedas, G., Les, F. & López, V. (2023). Phenolic compounds recovery from date seed and assessment of their antioxidant and enzyme inhibitory properties. The Annals of the University Dunarea de Jos of Galati Fascicle VI – Food Technology. 47(2), 190-206.

Djaoudene, O., Bachir-bey, M., Schisano,C., Djebari, S., Tenore, G.C. & Romano, A. (2024). A sustainable extraction approach of phytochemicals from date (*Phoenix dactylifera* L.) fruit cultivars using ultrasound-assisted deep eutectic solvent: a comprehensive study on bioactivity and phenolic variability. Antioxidants. 13, 181.

Djaoudene, O., Bachir-Bey, M. & Djebari, S. (2024). Stability study on physicochemical composition, bioactive compounds and antioxidant potential of apple jam: influence of daily storage conditions. Acta Universitatis Cibiniensis. Series E : Food Technology, 28 (1), 41-54.

Brara, Z., Madani, K., Costa, J., Taouzinet, L., **Djaoudene, O**., Amrane-Abider, M., Bougherra, H., Mouhoubi, K., Brahimi, N., Bouiche, C., Meghlaouia, Z. & Mafra, I. (2025). Current progress on the detection of genetically modified organisms in food: From transgenic towards genome-edited crops. Comprehensive Reviews in Food Science and Food Safety, 24 (5), e70243.

Djaoudene, O., Rodríguez-Solana, R. & Anabela Romano. (2026). Valorization of Date Palm (Phoenix dactylifera L.) Fruits and By-Products as High-Value Sustainable Products: A Comprehensive Review on Bioactive Composition, Health Benefits, and Industrial Applications. Molecules, 31(7), 1194.

Conference papers

National and international communications

Djaoudene, O., Zeghbib, W. & Louaileche, H. Ultrasound-assisted green solvent extraction of date fruit (*Phoenix dactylifera* L.) phenolics and in vitro antioxidant potential using deep eutectic liquids: optimization of extraction process parameters. International Food Science Seminar. 2018. Constantine.

Zeghbib, W., **Djaoudene, O.,** Bachir-bey, M., Belhamel, C., Louaileche, H. & Benchikh, Y. Extraction methods effect on the recovery of phenolic compounds and antioxidant activity of prickly pears seeds: optimization of extraction condition using a green solvent. International Food Science Seminar. 2018. Constantine, Algeria.

Zeghbib, W., **Djaoudene, O.,** Belhamel, C. & Bachir-bey, M. Etude de quelques propriétés nutritives des graines d'*Opuntia ficus indica*. 4th Natural and Life Sciences Day (JSNV-4). 2018. Bejaia.

Zeghbib, W., Bachir-bey, M. & **Djaoudene, O**. Etude de la composition en minéraux et en acides gras des graines d'*Opuntia ficus indica*. International Seminar on « Les produits du terroir : un outil du développement de l'agriculture de montagne ». 2018. Bejaia.

Djaoudene, O., Bachir bey, M. & Louaileche, M. Green extraction of bioactive components from Algerian date (*Phoenix dactylifera* L.) fruit cultivars grown in M'zab oasis using naturel deep eutectic solvent. 30th International Congress of Biological Sciences and Biotechnology. 2019. Sousse, Tunisia.

Djaoudene, O., Zeghbib, W., Bachir bey, M. & Tenore, C.G. Microwave-assisted extraction optimization of polyphenols and antioxidant capacity from *Phoenix dactylifera* and evaluation of their potential to prevent metabolic and neurological disorders. International Conference « Avancées sur les Antioxydants Naturels : Sources, mécanismes d'action et valorisation en santé ». 2019. Bejaia.

Djaoudene, O., Bachir bey, M., Mansinhos, I., Gonçalves, S. & Romano, A. Changes in the recovery of polyphenol content and *in vitro* antioxidant capacity of date *Phoenix dactylifera* by-product as influenced by extraction conditions and assessment of its potential health benefits. International Conference on Waste Treatment and Valorization. 2019. Constantine.

Djaoudene, O., Zeghbib, W., Bachir bey, M. & Tenore, C.G. Phytochemicals content, antioxidant activity and inhibitory potential of *Phoenix dactylifera* L. fruit extracts against enzymes involved in Alzheimer's disease and type II diabetes. International Congress « Valorisation des Bio ressources : Application et Impact sur les Développement Durable ». 2019. Boumerdès.

Djaoudene, O., Bachir bey, M. & Zeghbib, W. Green ultrasound-assisted procedure for the extraction of phytochemicals and evaluation of antioxidant capacity present in date (*Phoenix dactylifera* L.) fruits. National seminar « Alimentation, Santé et Environnement : Avancées et Perspectives ». 2019. Bejaia.

Djaoudene, O., Bachir bey, M., López, V., Cásedas, G., Les, F. & Tenore, C.G. Investigation of phytochemicals, antioxidant and enzyme inhibitory properties of date (*Phoenix dactylifera* L.) seeds. 1st doctoral day of Natural and Life Sciences. 2019. Bejaia.

Djaoudene, O., Bachir-bey, M., & Djebari S. Quality nutritional stability, bioactive compounds and antioxidant activity of apple jam: impact of storage time and temperature. Third international congress on biological and health sciences. 2023. Online.

Amrane-Abider, M., Zemouri-Alioui, S., Khaled, S., & **Djaoudene O**. Immature *Opuntia ficus*-indica peel by-product as mayonnaise additive and natural anticoccidial drug. The 4th International Electronic Conference on Foods. 2023. Online.

Djaoudene, O., Bachir-bey, M., Schisano, C., Djebari, S., Tenore, G.C. & Romano, A. (2024). Green approach for phenolic compounds extraction from date fruit (*Phoenix dactylifera* L.). The 5th International Electronic Conference on Foods. 2024. Online.

Djaoudene, O., Mansinhos, I., Gonçalves, S., Jara-Palacios, M.J., Bachir-bey, M. & Romano, A. Influence of simulated *in vitro* gastrointestinal digestion on phytochemical contents and biological activities of date by-product extract (*Phoenix dactylifera* L.). The 5th International Electronic Conference on Foods. 2024. Online.

Djaoudene, O., Benhammouche, T., Mazguene, S., Brara, Z., Mansinhos, I., Gonçalves, S., Jara-Palacios, M.J., Bachir bey, M., & Romano, A. Assessment of phytochemicals, antioxidant capacity and enzyme inhibitory potential of digested date fruit extract. 1st International Conference on Food Security and Sustainable Agri-food Technologies. 2025. Bejaia.

Djaoudene, O., Benhammouche, T., Mansinhos, I., Gonçalves, S., Jara-Palacios, M.J., Bachir bey, M., & Romano, A. Date seeds (*Phoenix dactylifera* L.): A promising source of bioactive compounds for functional applications. 1st International Congress on Sustainable Food Security: Innovation and Challenges. 2025. Bejaia.

Benhammouche, T., **Djaoudene, O.**, Melo, A., Martins, Z., Faria, M.A., Pinho S.C.M. & Ferreira I.M.L.P.V.O. Green Protein Innovation: Optimization of Enzymatic Extraction from *Moringa oleifera* Leaves. 1st International Congress on Sustainable Food Security: Innovation and Challenges. 2025. Bejaia.

Benhammouche, T., **Djaoudene, O**., Brara, Z., Martins, Z., Faria, M.A., Pinho S.C.M. & Ferreira I.M.L.P.V.O. Culainary performance, nutritional composition and protein digestibility of conventional pasta fortified with *Moringa Oleifera* leaf powder. 1st International Conference on Food Security and Sustainable Agri-food Technologies. 2025. Bejaia.

Brara, Z., Mazguene, S., Benhammouche, T., **Djaoudene, O**., Costa, J. &Mafra, I. Towards the implementation of genetically modified organisms (GMO) monitoring system in Algeria: Challenges and outcomes. 1st International Conference on Food Security and Sustainable Agri-food Technologies. 2025. Bejaia.

Mouhoubi, K., Medouni, L., **Djaoudene, O**., Abbou, A., Brahimi, N., Allam, A., Messaoudene, L., Neghrichi, S., Haddad, S., Ridouh, A., Boulekbache-Makhlouf, L. & Madani, K. Quality and safety of driend fruits and vegetables: A review of drying methods. 1st International Conference on Food Security and Sustainable Agri-food Technologies. 2025. Bejaia.

Djebari, S., Wrona, M., Nerin, C., **Djaoudene, O.** & Guemouni, S. Entre nutrition et médecine : valorisation du potentiel bioactifs de la caroube. 1st International Congress on Sustainable Food Security: Innovation and Challenges. 2025. Bejaia.

Mazguene, S., Brara, Z., **Djaoudene, O.** & Benhammouche, T. From fermentation to functionality: Nutritional and beneficial insights (a review). The 2nd International Congress on Food Sciences, Sustainability, Innovation and Health. 2025. INATA, Constantine.

Djaoudene, O., Benhammouche, T., Ydjedd, S., Mansinhos, I., Gonçalves, S., Jara-Palacios, M.J., Bachir bey, M., & Romano, A. Phytochemical composition and biological properties of date (*Phoenix dactylifera* L.) fruit extracts obtained using innovative extraction method. Séminaire National: Bioressources, Aliments & Santé. 2026. INATA, Constantine.

Djaoudene, O., Benhammouche, T., Mazguene, S., Rodríguez-Solana, R., & Romano, A. Bio-functionalities and therapeutic potential of dates (*Phoenix dactylifera* L.): A literature

review. 1st national Symposium on Biotechnologies and Bioresouces Valorization. 2026. Tizi Ouzou.

Mazguene, S., **Djaoudene, O**. & Benhammouche, T. Fermentation: From ancestral practice to food biotechnology: Toward the improvement of natural preservation strategy. 1st National Seminar, Science, Knowledge, and Valorization of Natural Resources: In light of Digital Transformation and Scientific Innovation. 2026. Bordj Bou Arreridj.

Benhammouche, T., **Djaoudene, O.,** Mazguene, S., Martins, Z., Faria, M.A., Pinho S.C.M. & Ferreira I.M.L.P.V.O. Plant-based proteins recovery and quality: Comparative evaluation of alkaline and enzymatic extraction methods. 1st National Seminar, Science, Knowledge, and Valorization of Natural Resources: In light of Digital Transformation and Scientific Innovation. 2026. Bordj Bou Arreridj.

Benhammouche, T., **Djaoudene, O**., Mazguene, S. & Abider-Amrane M. Pesticide residues in food detection: from detection to consumer protetion. Journée scientifique : Usage des pesticides en production agricole : Enjeux sanitaire, environnementaux et agroécologie. 2026. Bejaia.

Mazguene, S., **Djaoudene, O**. & Benhammouche, T. Regulatory framework and international recommendation on probiotics production and commercialization. Journée d'étude : Normalisation, certification et veille réglementaire. 2026. Bejaia.

Book of abstracts

ICFSSAT 2025:1st International Conference on Food Security and Sustainable Agri-food Technologies. 2025. **Djaoudene, O.,** Benhammouche, T., Mazguene, S., Brara, Z., Mansinhos, I., Gonçalves, S., Jara-Palacios, M.J., Bachir bey, M., & Romano, A. Assessment of phytochemicals, antioxidant capacity and enzyme inhibitory potential of digested date fruit extract. https://doi.org/10.51745/najfnr.9.20.A1-A36

SFS 2025: 1st International Congress on Sustainable Food Security: Innovation and Challenges. 2025. **Djaoudene, O.,** Benhammouche, T., Mansinhos, I., Gonçalves, S., Jara-Palacios, M.J., Bachir bey, M., & Romano, A. Date seeds (*Phoenix dactylifera* L.): A promising source of bioactive compounds for functional applications. https://doi.org/10.51745/najfnr.10.21.A68-A126

CISA 2025:1st The 2nd International Congress on Food Sciences, Sustainability, Innovation and Health. 2026. Mazguene, S., Brara, Z., **Djaoudene, O.** & Benhammouche, T. From fermentation to functionality: Nutritional and beneficial insights (a review). https://doi.org/10.51745/najfnr.10.21.A1-A67

Research Projects

PRFU Project

Title : Modélisation de l'extraction des composés bioactifs de différente ressources végétale, étude des propriétés antioxydantes et antimicrobiennes : application à visée agro-alimentaires

Project Memebers : Mostapha Bachir-bey, Walid Zeghbib, **Djaoudene Ouarda**, Amirouche Chikhoune, Firdousse Laincer and Assa Derguini

Project Duration : 4 years

Scientific Journals Refereed

Peer Reviewer

- LWT- Food Science & Technology
- Discover Food
- International Journal of Food Science & Technology
- Scientific Reports
- Plant Foods for Human Nutrition
- Food and Bioprocess Technology

• Food Analytical Methods

OTHER ACTIVITIES

• Member of the local committee for the promotion of visibility and ranking of the CRTAA
• Member of the scientific council of the CRTAA
• Member of the interview committee of research support engineers
• Member of the committee for the analysis and monitoring of scientific equipment at the CRTAA
• Member of the joint committee of the CRTAA

PERSONAL SKILLS

Language
Mather tongue: Arabic, Berber
Other language: Frensh, English
• Very fluency of Microsoft office: Word, excel, power point
• Knowledge and skill in some biology using software: STATISTICA, GraphPad, Zotero , Mendeley, JMP