> PERSONAL INFORMATION

Name Prof. Saïd GHARBY

Day of birth 02/07/1978 **nationality** MORROCAN

Married 3 children

Institution Biotechnology, Analytical Sciences and Quality

Control Team, Polydisciplinary Faculty of Taroudant, Ibn Zohr University, Agadir, Morocco, Address: BP. 271,

Taroudant 83000

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CURRENT ACTIVITIES

Since, June 2021 Associate Professor of analytical Chemistry and quality control at the

Polydisciplinary Faculty of Taroudant, IBN ZOHR University, Agadir,

Morocco.

2017- June 2021 Assistant Professor of Analytical Chemistry at the Polydisciplinary Faculty of

Taroudant, IBN ZOHR University, Agadir, Morocco.

2022-to date Technical auditor for laboratories (ISO 17025)

2018- To date Expert for both BRC and IFS standards in the oil industry (DNV, Italy)

2015- To date Consultant Freelance (MENTORIS CONSULTING and EMMERGENCE

CONSEIL)

Oil technology and quality control

Accompaniment mission of quality control laboratories

Good practices of laboratory

PROFESSIONAL EXPERIENCE

2011–2017 Engineer at Ministry of Agriculture, Autonomous Establishment of Control

and Coordination of Exports;

Research & Development Analyst of lipids science and technology in the

laboratory Lesieur-Cristal, Casablanca, Morocco,

EDUCATION

2007-2012	Ph.D. in Analytical Chemistry. Faculty of Science, Mohammed V University of Rabat.
2002-2004	Master in analytical chemistry, Faculty of Science, Hassan II University
1999- 2002	Bachelor degree in engineering processes, Sciences and technologies Faculty, Hassan II University

SCIENTIFIC SKILLS

- Analytical chemistry and quality control
- Medicinal and Aromatic Plants
- Oils science and technology
- Food Analysis and Biochemistry Techniques
- Biochemistry and agricultural chemistry

PROJECTS

2023-2024- Member of project of World Bank (We-Fi) Women Entrepreneurs Finance Initiative Phytosanitary analyses for henna and desert date oil in Mauritania.

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2022-2023: Coordinator of project "**REFAM-ANDZOA**" Contribution to the development of the argan tree sector, aromatic and medicinal plants, and the promotion of rural populations, particularly women in cooperatives,

2021-2024: Coordinator of project "ANPMA-CNRST" Nutritional enrichment of argan oil by phytonutrients from aromatic and medicinal plants: between tradition and innovation

2020-2023- Member of project "ANPMA-CNRST" Valorization of Medicinal and Aromatic Plants-

2016-2018— Member of project "Moroccan-German Programme of Scientific Research (PMARSIII)"

2016-2018- Member of project "Sustainable development of Messguina argan forest (Mitsui)

2013-2015 – Member of the project "Moroccan-German Programme of Scientific Research (PMARS II)".

SUPERVISION OF STUDENTS

- **PhD:** 1 completed, 5 in course
- **Master:** 20 completed; 2 in course
- Undergraduate (Professional Licence): 24 completed

ASSOCIATIVE ACTIVITIES

Vice President of the Ibn Al Baytar association for the promotion of medicinal plants

President of Community Slow Food Taroudant for the promotion of local products

➣ PUBLICATIONS AND COMMUNICATIONS

Author/Co-author of 100 publications 24 articles in proceedings of scientific meetings. Author/Co-author of 80 conferences and communications in symposia and national/international congresses including 50 orals in scientific meetings.

- METRICS OVERIEW
- **ORCID Profile**: https://orcid.org/0000-0003-2276-0855
- **Scopus Author** ID: 25927057100
- Publications: 98; Citations: 1792 total citations; H-index: 24,

Said, Gharby



➣ SELECTED PUBLICATIONS OF THE LAST 5 YEARS

- **1.** Oubannin Samira, Asbbane Abderrahim, Bijla Laila, Ait Bouzid Hasna, Gagour Jamila, Hallouch Otmane, Sakar El Hassan, **Gharby Said**, Co-processed [Argania spinosa L. (Skeels)] oil with thyme (Thymus vulgaris L.) leaves—New product optimization, Food Chemistry Advances, **3**,2023, https://doi.org/10.1016/j.focha.2023.100474.
- 2. Rabha Aissa, Mohamed Ibourki, Hasna Ait Bouzid, Laila Bijla, Samira Oubannin2, El Hassan Sakar, Simohamed Jadouali4, Andi Hermansyah, Khang Wen Goh, Long Chiau Ming, Abdelhakim Bouyahya, Said Gharby. Phytochemistry, quality control and medicinal uses of Saffron (Crocus sativus L.): an updated review. Journal of medicine and life, 16 (6), 822. DOI 10.25122/jml-2022-0353
 - **3.** Rabha Aissa , Mohamed Ibourki , Hasna Ait Bouzid , Laila Bijla , Samira Oubannin2 , El Hassan Sakar , Simohamed Jadouali4 , Andi Hermansyah, Khang Wen Goh , Long Chiau

- Ming, Abdelhakim Bouyahya, **Said Gharby**. Phytochemistry, quality control and medicinal uses of Saffron (Crocus sativus L.): an updated review. Journal of medicine and life, 16 **(6)**, 822. DOI 10.25122/jml-2022-0353
- **4.** El Yamani M, Sakar EH, Boussakouran A, **Gharby S**, Ainane T, Rharrabti Y. A multivariate approach to qualify "Moroccan Picholine" virgin olive oil according to extraction and environmental factors. J Am Oil Chem Soc. 2023. https://doi.org/10.1002/aocs. 12736
- **5.** El Yamani M, Sakar EH, Boussakouran A, **Gharby S**, Ainane T, Rharrabti Y. A multivariate approach to qualify "Moroccan Picholine" virgin olive oil according to extraction and environmental factors. J Am Oil Chem Soc. 2023. https://doi.org/10.1002/aocs.12736
- 6. Samira Oubannin, Abderrahim Asbbane, Fadwa Elhaidag, Laila Bijla, Jamila Gagour, Hasna Ait bouzid, Said El Harkaoui, El Hassan Sakar, Bertrand Matthäus, Said Gharby, "Enrichment of Argan [Argania spinosa (L.) Skeels] Oil with Saffron (Crocus sativus L.) Stigma Powder and Induced Changes in Oil Quality Attributes", Journal of Food Processing and Preservation, vol. 2023, Article ID 8895851, 10 pages, 2023. https://doi.org/10.1155/2023/8895851
- 7. El-Mehdi El-Assri, Ahmed Hajib, Hasnae Choukri, Said Gharby, Amal Lahkimi, Noureddine Eloutassi, Abdelhak Bouia, Nutritional quality, lipid, and mineral profiling of seven Moroccan Apiaceae family seeds, South African Journal of Botany, Volume 160,2023, Pages 23-35, https://doi.org/10.1016/j.sajb.2023.06.042.
- **8.** Mohamed Ibourki, Otmane Hallouch, Krishna Devkota, Dominique Guillaume, Abdelaziz Hirich, **Said Gharby**, Elemental analysis in food: An overview, Journal of Food Composition and Analysis, Volume 120,2023,105330,ISSN 0889-1575, https://doi.org/10.1016/j.jfca.2023.105330.
- **9.** El Hani, Ouarda, Juan José García-Guzmán, José María Palacios-Santander, Khalid Digua, Aziz Amine, **Said Gharby**, and Laura Cubillana-Aguilera. 2023. "Geographical Classification of Saffron (Crocus Sativus L.) Using Total and Synchronous Fluorescence Combined with Chemometric Approaches" Foods 12, no. 9: 1747. https://doi.org/10.3390/foods12091747.
- **10.** Hasna Ait Bouzid, Laila Bijla, Mohamed Ibourki, Samira Oubannin, Sara Elgadi, Jamal Koubachi, El Hassan Sakar & **Said Gharby**. Ziziphus lotus (L.) Lam. almonds nutritional potential: Evidence from proximate composition, mineral, antioxidant activity, and lipid profiling reveals a great potential for valorization. Biomass Conv. Bioref. (**2023**). https://doi.org/10.1007/s13399-023-03984-6.
- 11. El Hassan Sakar, Ahmed Zeroual, Ayoub Kasrati, Said Gharby, "Combined Effects of Domestication and Extraction Technique on Essential Oil Yield, Chemical Profiling, and Antioxidant and Antimicrobial Activities of Rosemary (Rosmarinus officinalis L.)", Journal of Food Biochemistry, vol. 2023, Article ID 6308773, 13 pages, 2023. https://doi.org/10.1155/2023/6308773.
- **12.** Hamdouch A., Anejjar A., Bijla L., **Gharby S.**, Asdadi A., Chebli B., Salghi R., Idrissi Hassani L.M. (2023) Corrosion inhibition of carbon steel by Vitex agnus castus leaves essential oils from the oasis of Tata, Mor. J.Chem., 14(1), 105-118. Doi: https://doi.org/10.48317/IMIST.PR SM/morjchem-v11i1.37301.

- 13. Hasna Ait Bouzid, Samira Oubannin, Mohamed Ibourki, Laila Bijla, Aicha Hamdouch, El Hassan Sakar, Hicham Harhar, Kahlid Majourhat, Jamal Koubachi, Said Gharby. 2023. Comparative evaluation of chemical composition, antioxidant capacity, and some contaminants in six Moroccan medicinal and aromatic plants. Biocatalysis and Agricultural Biotechnology, 47, 2023, 102569. https://doi.org/10.1016/j.bcab.2022.102569.
- **14.** Halabi, Y.; Nasri, C.; Guezzane, C. E.; Harhar, H.; **Gharby, S.**; Bellaouchou, A.; Warad, I.; ABDELKADER, Z.; Tabyaoui, M. Date palm phoenix dactilifera l. seed oil: variety effects on physicochemical characteristics, fatty acid composition, sterol and tocol contents. J microb biotech food sci 2022, e5725. https://doi.org/10.55251/jmbfs.5725
- **15.** El harkaoui S, **Gharby S**, Kartah B, El Monfalouti H, Emam El-sayed M, Abdin M, Abdelbaset Salama M, Charrouf Z, Matthäus B. Lipid profile, volatile compounds and oxidative stability during storage of Moroccan Opuntia ficus-indica seed oil. Grasas Aceites, e486. https://doi.org/10.3989/gya.1129212.
- **16.** Gagour J, Oubannin S, Ait Bouzid H, Bijla L, El Moudden H, Sakar EH, Koubachi J, Laknifli A, **Gharby S. 2022**. Physicochemical characterization, kinetic parameters, shelf life and its prediction models of virgin olive oil from two cultivars ("Arbequina" and "Moroccan Picholine") grown in Morocco. *OCL* 29: 39. https://doi.org/10.1051/ocl/2022033
- **17.** Hasna Ait Bouzid, El Hassan Sakar, Laila Bijla, Mohamed Ibourki, Ahmed Zeroual, Jamila Gagour, Jamal Koubachi, Khalid Majourhat, **Saïd Gharby**. (**2022**). Physical Fruit Traits, Proximate Composition, Antioxidant Activity, and Profiling of Fatty Acids and Minerals of Wild Jujube (*Ziziphus lotus L.* (Desf.)) Fruits from Eleven Moroccan Origins", Journal of Food Quality, vol. **2022**, Article ID 9362366, 15 pages, **2022**. https://doi.org/10.1155/2022/9362366
- **18.** Mohamed Abdoul-Latif, Fatouma, Zineb El Montassir, Ayoub Ainane, **Said Gharby**, El Hassan Sakar, Ali Merito, Jalludin Mohamed, and Tarik Ainane. **2022**. "Use of Thymus Plants as an Ecological Filler in Urea-Formaldehyde Adhesives Intended for Bonding Plywood" *Processes* 10, no. 11: 2209. https://doi.org/10.3390/pr10112209.
- **19. Gharby, S.**; Oubannin, S.; Ait Bouzid, H.; Bijla, L.; Ibourki, M.; Gagour, J.; Koubachi, J.; Sakar, E.H.; Majourhat, K.; Lee, L.-H.; Harhar, H.; Bouyahya, A. An Overview on the Use of Extracts from Medicinal and Aromatic Plants to Improve Nutritional Value and Oxidative Stability of Vegetable Oils. *Foods* **2022**, *11*, 3258. https://doi.org/10.3390/foods11203258
- **20.** Sakar, E.H.; Khtira, A.; Aalam, Z.; Zeroual, A.; Gagour, J.; **Gharby, S**. Variations in Physicochemical Characteristics of Olive Oil (cv 'Moroccan Picholine') According to Extraction Technology as Revealed by Multivariate Analysis. *AgriEngineering* **2022**, *4*, 922-938. https://doi.org/10.3390/agriengineering404005.
- **21.** Mohamed Ibourki, **Said Gharby**, El Hassan Sakar, Ouarda El Hani, Khalid Digua, Aziz Amine, Moussa Nid Ahmed, Zoubida Charrouf, Dominique Guillaume, Abdelatif El Hammadi. Elemental profiling and geographical differentiation of saffron (Crocus *sativus L.*) using inductively coupled plasma-optical emission spectroscopy (ICP-OES) and principal component analysis, Chemical Data Collections, Volume 41, **2022**, 100937, https://doi.org/10.1016/j.cdc.2022.100937.

- 22. Oubannin, S., Bijla, L., Gagour, J., Hajir, J., Aabd, N. A., Salama, M. A., & Gharby, S. (2022). A comparative evaluation of proximate composition, elemental profiling and oil physicochemical properties of black cumin (Nigella sativa L.) seeds and argan (Argania spinosa L. Skeels) kernels. Chemical Data Collections, 41, 00920. https://doi.org/10.1016/j.cdc.2022.100920
- **23.** Bijla L, Aissa R, Laknifli A, Bouyahya A, Harhar H, **Gharby S**. Spent coffee grounds: A sustainable approach toward novel perspectives of valorization. J Food Biochem. **2022** May 12:e14190. doi: 10.1111/jfbc.14190.
- 24. Laila Bijla, Mohamed Ibourki, Hasna Ait Bouzid, El Hassan Sakar, Rabha Aissa, Abdellatif Laknifli, Said Gharby. Proximate Composition, Antioxidant Activity, Mineral and Lipid Profiling of Spent Coffee Grounds Collected in Morocco Reveal a Great Potential of Valorization. *Waste Biomass Valorisation* (2022). https://doi.org/10.1007/s12649-022-01808-8.
- 25. Ibourki M., Ait Bouzid H., Bijla L., Aissa R., Sakar EH., Ainane T., **Gharby S.**, El Hammadi A. 2022. Physical fruit traits, proximate composition, fatty acid and elemental profiling of almond [Prunus dulcis Mill. DA Webb] kernels from ten genotypes grown in southern Morocco. OCL 29:9.https://doi.org/10.1051/ocl/2022002.
- **26.** Hamdouch A., **Gharby S.**, Asdadi A., Ait Bouzid H., Achemchem F., Chebli B., Idrissi Hassani L A. (**2022**). Chemical composition, antioxidant and antibacterial activities of Brocchia Cinerea from South-East of Morocco. *Arabian Journal of Medicinal and Aromatic Plants*, 8 (**1**), p. 1-20. doi: https://doi.org/10.48347/IMIST.PRSM/ajmap-v8i1.28092.
- **27. Gharby S** and Charrouf Z (**2022**) Argan Oil: Chemical Composition, Extraction Process, and Quality Control. *Front. Nutr.* 8:804587. doi: 10.3389/fnut.2021.804587
- **28.** Fadda, A.; Sanna, D.; Sakar, E.H.; **Gharby, S**.; Mulas, M.; Medda, S.; Yesilcubuk, N.S.; Karaca, A.C.; Gozukirmizi, C.K.; Lucarini, M.; Lombardi-Boccia, G.; Diaconeasa, Z.; Durazzo, A. **2022.** Innovative and Sustainable Technologies to Enhance the Oxidative Stability of Vegetable Oils. *Sustainability* **2022**, *14*, 849. https://doi.org/10.3390/su14020849
- **29. Said Gharby**. 2020. Refining Vegetable Oils: Chemical and Physical Refining. *The Scientific World Journal*. Volume **2022**, Article ID 6627013, 10 pages. https://doi.org/10.1155/2022/6627013
- **30.** Ibourki, M., Ait Bouzid, H., Bijla, L., Sakar EH., Asdadi A., Laknifli A., El Hammadi A. and **Gharby S. 2022**. Mineral Profiling of Twenty Wild and Cultivated Aromatic and Medicinal Plants Growing in Morocco. *Biological Trace Element Research* (2022). https://doi.org/10.1007/s12011-021-03062-w
- **31.** Laila Bijla, Rabha Aissa, Hasna Ait Bouzid, El Hassan Sakar, Mohamed Ibourki, Abdellatif Laknifli and **Said Gharby**. **2022**. Spent coffee ground oil as a potential alternative for vegetable oil production: Evidence from oil content, lipid profiling and physicochemical characterization. Volume 10, Issue ., 2022, https://doi.org/10.33263/BRIAC00.000000
- **32.** Hasna Ait bouzid, Hanane Ghoumghar, Laila Bijla, Mohamed Ibourki, El Hassan Sakar, Jamal Koubachi, Abdellatif Laknifli and **Said Gharby**. *Journal OF Analytical Sciences and*

- *Applied Biotechnology.* ISSN: 2665-8488 **2021**, Vol. 3, Issue 2 Pages: 84-88. <u>DOI:</u> 10.48402/IMIST.PRSM/jasab-v3i1.28254
- **33.** Mohamed Ibourki, Fadma Azouguigh, Si Mohamed Jadouali, El Hassan Sakar, Laila Bijla, Khalid Majourhat, **Said Gharby**, Abdelatif Laknifli. **2021**. Physical Fruit Traits, Nutritional Composition, and Seed Oil Fatty Acids Profiling in the Main Date Palm (*Phoenix dactylifera L.*) Varieties Grown in Morocco", *Journal of Food Quality*, vol. 2021, Article ID 5138043, 12 pages, 2021. https://doi.org/10.1155/2021/5138043.
- **34.** Mohamed Ibourki, **Said Gharby**, Dominique Guillaume, El Hassan Sakar, Abdellatif Laknifli, Abdellatif El Hammadi, and Zoubida Charrouf. **2021**. Profiling of Mineral Elements and Heavy Metals in Argan Leaves and Fruit By-products using Inductively Coupled Plasma Optical Emission Spectrometry and Atomic Absorption Spectrometry. *Chemical Data Collections.* (xx), 100772. https://doi.org/10.1016/j.cdc.2021.100772.
- 35. Nounah I., **Gharby S.**, Hajib A., Harhar H., Matthäus B., and Charrouf Z. **2021**. Effect of seeds roasting time on physicochemical properties, oxidative stability and antioxidant activity of cactus (*Opuntia ficus-indica L.*) seed oil. *Journal of Food Processing and Preservation*. 00:e15747. https://doi.org/10.1111/jfpp.15747
- **36. Gharby S.**, Hajib A., Ibourki M., Sakar E. H., Nounah I., ELMoudden H., Elibrahimi M., and Harhar H. **2021**. Induced changes in olive oil subjected to various chemical refining steps: A comparative study of quality indices, fatty acids, bioactive minor components, and oxidation stability kinetic parameters. *Chemical Data Collections*. **(33)**, 100702. https://doi.org/10.1016/j.cdc.2021.100702.
- 37. Sakar E. H., El Yamani M., Boussakouran A., Ainane A., Ainane T., **Gharby S.**, and Rharrabti Y. **2021**. Variability of oil content and its physicochemical traits from the main almond [Prunus dulcis Mill. DA Webb] cultivars grown under contrasting environments in north-eastern Morocco. *Biocatalysis and Agricultural Biotechnology*. **(32)**, 101952. https://doi.org/10.1016/j.bcab.2021.101952
- **38. Gharby S.**, Guillaume D., Elibrahimi M. and Charrouf Z. **2021**. Physico-chemical properties and sensory analysis of deodorized argan oil. *ACS-Journal Food Science and Technology*. **1 (2)**, 275–281. https://doi.org/10.1021/acsfoodscitech.0c00107
- **39. Gharby S.**, Guillaume D., Nounah I., Harhar H., Hajib A., Matthäus B., Charrouf Z., **2021**. Shelf life of Moroccan prickly pear (*Opuntia ficus-indica*) and argan (*Argania spinosa*) oils: a comparative study. *Journal Grasas Aceites* 72 (**1**), e397. https://doi.org/10.3989/gya.1147192
- **40.** Hajib A., Nounah I., Harhar H., **Gharby S.**, Kartah B., Matthäus B., Bougrin K. and Charrouf Z. **2021.** Lipid profile and oxidative stability of Moroccan pomegranate (*Punica granatum* L.) seed oil. *OCL Oilseeds and fats, Crops and Lipids*, **28**, 5. https://doi.org/10.1051/ocl/2020069.
- 41. Said Gharby, Ali Asdadi, Mohamed Ibourki, Aicha Hamdouch, Tarik Ainane & Lala Amina Idrissi Hassani (2020) Chemical Characterization of The Essential Oil From Aerial Parts of Lavandula rejdalii Upson & Jury, a Medicinal Plant Endemic to Morocco, Journal of Essential Oil Bearing Plants, 23(6), 1422-1427. https://doi.org/10.1080/0972060X.2020.1870575

- **42.** Chbani M., Matthäus B., Charrouf Z., El Monfalouti H., Kartah B., **Gharby S.,** and Willenberg, I. **2020**. Characterization of Phenolic Compounds Extracted from Cold Pressed Cactus (*Opuntia ficus-indica* L.) Seed Oil and the Effect of Roasting on Their Composition. *Foods*, 9(**8**), 1098. https://doi.org/10.3390/foods9081098
- **43. Gharby S.,** Ravi H. K., Guillaume D., Abert Vian M., Chemat F., and Charrouf Z. **2020**. 2-methyloxolane as alternative solvent for lipid extraction and its effect on the cactus (*Opuntia ficus-indica* L.) seed oil fractions. *OCL Oil seeds and fats, Crops and Lipids*, 27, 27. https://doi.org/10.1051/ocl/2020021
- **44.** Sakar E. H., EL Yamani M., Boussakouran A., Zeroual A., **Gharby S.**, and Rharrabti Y. **2020**. On the natural variability of kernel oil content in almond: An Overview. *Journal of Analytical Sciences and Applied Biotechnology*. 1(2), 16-22. https://doi.org/10.48402/IMIST.PRSM/jasab-v2i1.21076
- **45.** Hajib A., Nounah I., Oubihi A., Harhar H., **Gharby S.**, Kartah B., Bougrin K., and Charrouf Z. **2020**. Chemical Composition and Biological Activities of Essential Oils from the Fruits of *Cuminum cyminum* L. and *Ammodaucus leucotrichus* L. (*Apiaceae*), *Journal of Essential Oil-Bearing Plants*, 23 (3), 474-483. https://doi.org/10.1080/0972060X.2020.1790427
- **46.** Harhar Hicham., **Gharby Said**., El Idrissi Yousra., Pioch Daniel., Matthäus Bertrand., Charrouf Zoubida., & Tabyaoui Mohamed.**2019**. Effect of maturity stage on the chemical composition of argan fruit pulp. *OCL Oil seeds and fats, Crops and Lipids*. **(26)**, 1-8. https://doi.org/10.1051/ocl/2019012.

BOOK CHAPTERS

- **1.** Sakar, El Hassan and **Gharby said** (2022). Olive Oil: Extraction Technology, Chemical Composition, and Enrichment using Natural Additives" book title Olive Cultivation, IntechOpen ISBN 978-1-80355-442-6.
- 2. Charrouf Z, Chiarello M.D. Distasio M.; Kerem Z.; Pages X.; Pineli L. de L; de O.; Rossignol-Castera A.; Volpe M.G. **Gharby S.**; Guillaume D., Matthaus B (2009). Mor W Extraction, Refining, Conservation and Packaging Methods of Edible oils. In: Mac-Oils (Mappaing and Camparing Oils), The Scientific Handbook. Sixth Framework Programme Priority 5, Food Quality and Safety Priority, Call 4-C, Specific support Action, page 57.

☼ CONFERENCES and ORALES COMMUNICATIONS (Last Five years)

- 1. Valorization of Cosmetic Argan Oil: Scientific Research to Enhance the Value of Argan Oil, Le studium Conferences, 2023. Plant rediscovery with advanced tools for well-being applications9-11 October 2023, *Orlean, France*
- 2. Science Analytique au Service de la Valorisation des Produits de Terroirs au Maroc : Cas de l'Huile d'Argane. 5ème Edition des Journées Pratiques Francophones des Sciences Analytiques. 10 11 Mai 2023. *Casablanca*.
- 3. Huile d'argane : un modèle de développement des produits de terroir. 1 er WORKSHOP sous le thème : produits du terroir : valorisation cosmétique et alimentaire. Ecole Supérieure de Technologie, Le 28-29 Mars 2023. *Khénifra*.
- 4. Valorization of Argan oil: "Scientific Research to Enhance the Value of Argan Oil" 2022 International seminar of GIP-TRIAD, Master Agro-Biomedical Science in Food and Health, 14 Decembre 2022, University of *Tsukuba*, *Japan*.
- 5. Valorisation de l'Huile d'Argane, de la Recherche Scientifique à l'Exploitation par des Coopératives. The 1st international workshop, Science at the service of the social economy under the theme "Green gold, when Aromatic and Medicinal Plants inspire Innovation" on November 03-05, **2022**, *Khouribga*.
- 6. Propriétés chimiques et bienfaits de l'huile d'argane alimentaire. "As smooth as oil" Discovering traditions, properties and benefits of Olive oil and other traditional vegetable oils. Organisation des Nations Unies pour l'Agriculture et l'Alimentation (Porjet SIPAM-FAO). Webinaire 26 Mai 2022, Turin, Italy.
- 7. Les sous-produits de l'arganier Recherche et Innovation : Recherche Scientifique au Service de la Valorisation de l'Huile d'Argane. Les doctoriales de la chaire ICESCO sur l'arganier, 14 Mai **2022** à La cité d'innovation, *Agadir*.
- 8. L'huile d'argane : Une huile aux multiples vertus : 1-Composition chimique, qualité, conservation, adultération et propriétés organoleptiques 2- Valeurs nutritionnelles, cosmétologiques et médicinales. 3- Application dans des produits cosmétiques Art'gan Days, 6-8 Mai 2022 à la musée de l'Arganier, *Agadir*.
- 9. La recherche scientifique au service de la valorisation de l'huile d'argane. Ecole Internationale de Recherche 8 ème édition Biodiversité, Biotechnologies, Durabilité & Innovation, 20-22 Décembre **2021**, Université Ibn Zohr, *Agadir*.

- 10. Contrôle qualité des produits de PAMs, et des huiles végétales. 1ère Edition du Workshop "Valorisation et promotion des plantes aromatiques et médicinales". Université Mohammed VI Polytechnique, le 14-15 décembre 2021, *Laâyoune*.
- 11. Recherche scientifique et son rôle dans le développement de la filière d'Argane. Séminaire « Filière de l'arganier : Atouts et Enjeux. Faculté polydisciplinaire de Traoudant, 03 Juin **2021**, *Taroudant*.
- 12. La chimie de l'huile d'Argane au service de développement de l'arganier. Célébration de la Journée Internationale de l'Arganier. Webinaire Sous le Thème : Préservation et Valorisation de l'Arganier Journée Internationale de l'Arganier, le 10 Mai 2021, *Agadir*.
- 13. Recherche Scientifique et Qualité de l'Huile d'Argane. Célébration de la Journée Internationale de l'Arganier. Webinaire Sous le Thème : Huile d'argane qualité et santé le 19 Mai **2021**, *Agadir*.
- 14. Valorisation de l'huile de noyaux de dattes : Procédé d'extraction, composition chimique et stabilité oxydative. Colloque International : « Approche intégrée pour une gestion durable de la phœniciculteur en milieu oasien », du 01 03 Novembre 2019, *Figuig*.
- 15. Les déterminants de la qualité de l'huile de cactus. Journées Pratiques Francophones des Sciences Analytiques, 25 et 26 Avril **2019**, *Marrakech*.
- 16. L'histoire et l'importance sociale et environnementale de l'huile d'argane. Terra Madre, Salone Del Gusto du 19-25, Septembre **2018** à *TURIN. ITALY*.
- 17. Les normes de la qualité de l'huile d'argane. 6 ème édition du Salon National des Produits de Terroir, du 19 au 22 Juillet **2018**, *Agadir*.
- 18. De l'arganier à l'huile d'argane: Procédé d'extraction, qualité chimique, authenticité et stabilité oxydative. Biotechnologie des Substances Naturelles et de l'Environnement, Le 19 Avril 2018, *Khenifra*.
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