ByPalma 2023 3rd World Confrence on Byproducts of Palms
Towards a Sustainable Bioeconomy

King Saud University College of Engineering | ByPalma Association | المركز الوطني للنخيل و التمور NATIONAL CENTRE FOR PALMS & DATES

DAY 1 | 05 December 2023

ORAL PROGRAMME

09:00 AM	**Opening Session**
09:30 AM	**Keynote 1** **Arno Fruehwald,** University of Hamburg, Germany **Mohamad Midani,** VALORIZEN, Egypt Palm Biomass for Multiple Use – Strong Player in Sustainable Economic, Social and Ecological Development
10:15 AM	**Discussion Panel 1** Industrial Conversion Applications of Palm and Date Residues Moderator: **Abdulrahaman Alsoqeer**, National Research and Development Center for Sustainable Agriculture (Estidamah), Saudi Arabia Panelists: **Mohammed Refdan Alhajhoj,** King Faisal University, College of Agricultural Sciences, Saudi Arabia **Nourah AlFarris**, Princess Norah bint Abdulrahman University, Saudi Arabia **Adil Eltayeb Abdelnour**, National Research and Development Center for Sustainable Agriculture (Estidamah), Saudi Arabia **Basheer A. Alshammari,** King Abdul Aziz City for Science and Technology, Saudi Arabia **Ahmed Sabra,** Ajaweed Co, Saudi Arabia **Ibrahim Hassan Al. Shahi Hassan, Ibrahim** Dates Factory, Saudi Arabia
11:30 AM	**Coffee Break/ Poster Session**

	Room A Session A.1 | Arno Fruehwald	**Room B** Session B.1 | Basim Abu-Jdayil	**Room C** Session C.1 | Maher M. Alrashed
12:00 PM	**INVITED SPEAKER** Up-Scaling Production of Marine Grade Equivalent (MGE) Plywood from Oil Palm Trunk Paaridah Md Tahir, Malaysia	**ID 019** Technical Report and Feasibility Study of Particleboard Production from Date Palm Wastes in Saudi Arabia Adah Alfayez, Saudi Arabia	**ID 143** Potential Uses of Date Palm Residues as Organic Amendments to Improve Crop Growth and Arid Soil Properties Khaled Alotaibi, Saudi Arabia
12:15 PM		**ID 194** Mechanical Dewatering of Oil Palm Lumber (Elaeis Guineensis Jacq.) to Reduce Costs and Improve Quality Katja Fruehwald-Koenig, Germany	**ID 013** Enhancement of Green Economy and Sustainability Via Valorization of Date Palm Wastes Using Bulk and Nano Size Biochar as Soil Additives Mohamed Badawi, United Arab Emirates
12:30 PM	**ID 020** Superior Fracture-Seal Material Using Crushed Date Palm Seeds for Oil and Gas Well Drilling Operations Musaed AlAwad, Saudi Arabia	**ID 111** An Insight of Oil Palm Trunk Fiber Utilization for Composite Panels, Bioenergy, and Functional Textile Arif Nuryawan, Indonesia	**ID 053** Date Palm Waste is a Good Local Substrate for Vegetable Crops Grown in Soilless Culture Mohamed Ewis, Saudi Arabia
12:45 PM	**ID 087** A New Optimized Green Composite Based on Polylactic Acid Mixed with Date Palm Waste for Biodegradable Plastic Cutlery Noran Mousa, United Arab Emirates	**ID 106** Surface Modification Routs for Date Palm Fibers Towards Improved Interfacial Crosslinking Khalid Alzebdeh, Oman	**ID 065** Solar Driven Interfacial Evaporation System Using Date Palm Biochar and Biopolymeric Nanofiberous Membranes Irfan Farooq, Saudi Arabia
01:00 PM	**ID 105** Recovery of Cellulose Fibers from Date Palm Bunch for Pulp and Paper Making Applied in Active Food Packaging Raji Marya, Morocco	**ID 085** Utilization of Date Palm Waste in Green Composites: Thermal, Physical and Mechanical Properties Basim Abu-Jdayil, United Arab Emirates	**ID 185** Optimization of Pyrolysis for Plam Waste Biochar as a Cement Replacement using Response Surface Methodology Aan Aman, Malaysia
01:15 PM	**ID 131** Preparation and Characterization of Cellulose Fiber Obtained from Date Palm Leaves: Papermaking Application Maha Sobhy, Egypt	**ID 100** Effect of Aging on Properties of Nitrile Rubber Reinforced with Date Palm Fibers Noor Alghamdi, Saudi Arabia	**ID 132** Date Seed-Derived Activated Carbon: A Comparative Study for Heavy Metal Removal in Aqueous solution Mohammad Rahman, Saudi Arabia
01:30 PM	**Lunch/ Poster Session**		
03:00 PM	**Keynote 2** **Fahad Nasser Alkoaik,** King Saud University, Saudi Arabia Palm Tree Residues: Raw Material of Tomorrow		
03:45 PM	**Plenary 1** **Hom Dhakal,** University of Portsmouth, United Kingdom Performance Targets & Ways to Achieve Industrial Applications of Date Palm Fibre Reinforced Sustainable Bio-Composites: Opportunities, Challenges & Future Perspectives		
04:15 PM	**Coffee Break**		

	Room A Session A.2 | Basheer Alshammari	**Room B** Session B.2 | Ghedeir Alshammari	**Room C** Session C.2 | Saleh Al-Ghamdi
04:30 PM	**ID 205** Efficient Liquefaction Of Lignin In Methanol Using Zro2 Electrospun Nanofibrous Catalyst Mohammad Ali, Saudi Arabia	**ID 028** Date Palm Fruit Seed (Phoenix Dactylifera L.) Novel Findings and Future Directions for Food and Drug Discovery Soad Al Jaouni, Saudi Arabia	**ID 138** Sustainable Greywater Management in Riyadh City Mosques: Unleashing the Power of Palm Residue for Eco-Friendly Solutions Raouf Hassan, Saudi Arabia
04:45 PM	**ID 061** Renewable and Sustainable Eco–Composites Obtained from Biomass Wastes for Industrial Application: Challenges and Innovations Hamid Essabir, Morocco	**ID 207** Filling the Gap in the Pharma Industry Supply Chain by Producing non-API Pharmacy Ingredients from Palm Tree Waste Mohamed F AlAjmi, Saudi Arabia	**ID 142** Synthesis and Characterization of Carboxymethylcellulose (CMC) Derived from Date Palm Fronds Abdulrahman Alzubaidi, Saudi Arabia
05:00 PM	**ID 174** Valorization of Phoenix dactylifera Biomass by Manufacturing Nanostructured Materials Ali A Alshatwi, Saudi Arabia	**ID 171** Effect of Date's Seed (Phoenix Dactylifera L.) Poly Phenols on Human Breast Cancer Cells Ghedeir Alshammari, Saudi Arabia	**ID 126** Energetics and Kinetics of Thermo-Oxidative Degradation of the Palm Tree Trunks Fahad AlMubaddel, Saudi Arabia
05:15 PM	**ID 155** Implementation of a Biotechnological Concept for Valorization of Tunisian Date Wastes (Phoenix Dactylifera L.) Issam Smaali, Tunisia	**ID 166** Date Pollen Grains, Ginseng, and Tribulus Extracts Supplementation Improves Sexual State, Testes Redox Status, and Testicular Histology in Nile Tilapia Males Abdallah Mansour, Saudi Arabia	
05:30 PM	**Closing**		

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DAY 2 | 06 December 2023

09:00 AM	**Keynote 3** **Hamed El-Mously,** Ain Shams University, Egypt Date Palm Byproducts: A Springboard for Circular Bio Economy
09:45 AM	**Keynote 4** **Abou El-Kacem Qaiss,** Moroccan Foundation for Advanced Science, Innovation and Research (MAScIR), Morocco Recent Advances on Bio-Thermoplastics Based Date Palm Fibers
10:30 AM	**Discussion Panel 2** The Role of Government Agencies in Integrating and Empowering the Industrial Sector of Palms, Dates and their Derivative Products Moderator: **Dr. Abdullah Khalifa M Almubarak**, Director of Food Processing Sector – National Industrial Development Center, Saudi Arabia Panelists: **Mosleh Fayez Alzobidi,** Ministry of Industry and Mineral Resources, Saudi Arabia **Khalid Fahad Alkhalid,** Local Content and Government Procurement Authority, Saudi Arabia **Hassan Saleh Abalkhail,** Saudi Food and Drug Authority, Saudi Arabia **Nasser Albishi**, The National Centre for Palms & Dates, Saudi Arabia
11:30 AM	**Coffee Break/ Poster Session**

	Room A Session A.3 | Mohanad El-Harbawi	Room B Session B.3 | Abou El-Kacem Qaiss	Room C Session C.3 | Hassan Ali-Dinar
12:00 PM	**INVITED SPEAKER** Date Palm Derived Biochar Amendments to Mitigate Water Deficit Effects in Greenhouse Grown Cucumbers Muhammad Munir, Saudi Arabia	**ID 051** Production of Insulation Panels from the Petiole of Date Palm as Byproducts Abdelouahed Kriker, Algeria	**INVITED SPEAKER** Production of Nano cellulose and Nano-Composites from Date Palm Biomass for Eco-Friendly and Sustainable Greener Future Hassan Ali-Dinar, Saudi Arabia
12:15 PM		**ID 039** Evaluation of Fungal Decay and Biodegradation of Thermoplastic Composites Reinforced with Date Palm Fibre Said Awad, Egypt	
12:30 PM	**ID 066** Microwave-Assisted Production of Hydrochar by Hydrothermal Carbonization of Palm Date Biomass and its Application to the Removal of Dyes from Wastewater Saeed Alhawtali, Saudi Arabia	**ID 041** Improvement of Cement Thermal Insulation with Natural Palm Polymeric Fiber Zaid Alhulaybi, Saudi Arabia	**ID 063** Biological Potential of Pits and Vinegar From of Three Varieties of Algerian Phoenix Dactylifera L. Zahia Kabouche, Algeria
12:45 PM	**ID 095** The Use of Biochar to Improve the Hydro-Physical Properties of Sandy Soils in Arid Regions. Abdulrasoul Al-Omran, Saudi Arabia	**ID 119** Chemical and Thermal Properties of a New Insulating Material Based on Portland Cement Reinforced with Date Palm Fibers Nadir Bellel, Algeria	**ID 024** Unlocking the Potential of Date Fruit Pomace: Lactic Acid fermentation and Adsorbent Material Valorization Sabeera Haris, United Arab Emirates
01:00 PM	**ID 102** Date Palm Waste Biochar for Sustainable CO2 Capture. Performance and SWOT Analysis Mukarram Zubair, Saudi Arabia	**ID 128** Characterization and Behavior Simulation of Extruded Clay Bricks with Light Weight Date Palm Fibers Mohamed Bentchikou, Algeria	**ID 107** Natural Sweeteners from Local Dates – Practical Applications for Calculating Nutrients and Calories Muneera Al-Mssallem, Saudi Arabia
01:15 PM	**ID 192** Development of PCL/date palm fibre bio-composites for sustainable packaging applications: effects of dry blending process on bio-composites' mechanical and thermal performances Hom Dhakal, United Kingdom		**ID 208** TiO2 Activated Carbon Photocatalyst Prepared using Date Pits for the Degradation of Methane and Phenol Waheed A. Al-Masry, Saudi Arabia
01:30 PM	**Lunch/ Poster Session**		

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DAY 3 | 07 December 2023

09:00 AM	**Keynote 5** **Naceur Belgacem,** Grenoble INP-Pagora Engineering School, France Cellulose as Substrate for Active Surfaces: Theory and Applications		
09:45 AM	**Keynote 6** **Nashi Khalid Alqahtani,** King Faisal University, Saudi Arabia Date Palm Waste Innovative Products for Sustainable Environment		
10:30 AM	**Discussion Panel 3** Estimations of Local and Global Date Palm Byproducts Moderator: **Abdulrahman S. Al-Habib**, Executive Director of The International Council for Dates Panelists: **Thaer Yasin**, Food and Agriculture Organization (FAO), Egypt **Fuaad Mansur**, Industrial Date Palm Waste Conversion Expert, Iraq **Mustapha Abdelaoul**, Palm Waste Valorization Project Manager, Morocco **Adah Alfayez**, The Saudi investment recycling company (SIRC), Saudi Arabia **Anwar Haddad**, Jordanian Dates Association, Jordan		
11:30 AM	**Coffee Break/ Poster Session**		
	Room A Session A.4 | Mohamed Ali	**Room B** Session B.4 | Naceur Belgacem	**Room C** Session C.4 | Nashi Khalid Alqahtani
12:00 PM	**INVITED SPEAKER** New Novel Thermal Insulation and Sound-Absorbing Materials Developed from the Surface Fiber and Leaves of Palm Trees and their Hybrid with other Materials Mohamed Ali, Saudi Arabia	**ID 201** Significance of Natural Dyes Extracted from Date Palm Fiber Fibrillium and Assessment of Dyeability on Cellulosic Fiber via Statistical Modeling Ramzi Khiari, Tunisia	**ID 089** Utilizing Date Pits in Microencapsulation: Effect of Different Variations on Probiotic Survivability Under in-Vitro Digestion Asmaa AlHamayda, United Arab Emirates
12:15 PM		**ID 170** Mechanical Properties of Nano Date Palm versus Nano Titanium Dioxide Particles Reinforced Composites: Experimental Characterization Khalid Alzebdeh, Oman	**ID 184** A Look at Palm and Date Losses and Opportunities for Sustainable Investment Abdullah Alhamdan, Saudi Arabia
12:30 PM	**ID 059** Cellulose Aerogels Made from Date Palm Wood for Heat Insulation in Construction Hyder Al Abdallah, United Arab Emirates	**ID 083** Design, Processing, Testing and Characterizing for Orthodontics of Palm-fibers based Bio-nanocomposite Refat El-Sheikhy, Saudi Arabia	**ID 092** Selective Fermentation of Wasted Saudi Dates' Syrups into Fructose and Bioethanol or Single Cell Protein Mohamed Gaily, Saudi Arabia
12:45 PM	**ID 157** Oil Palm Trunk and Fiber Utilization – Flow of Material, Nutrients and Carbon Arno Fruehwald, Germany	**ID 034** Utilization of Graphene Oxide Derived from Date Pits for Adsorption Mechanism of Bromopyrogallol Red (BPR) Dye Nasser Awwad, Saudi Arabia	**ID 172** Identification of Secondary Metabolites in Ajwa Date Seed and Optimized Condition of Enzymes inhibition Using Response Surface Methodology and Artificial Neuronal Network Models Fanar Hamad Alshammari, Korea
01:00 PM	**ID 191** Cross-Laminated Timber (CLT) Made from Oil Palm Wood (Elaeis guineensis Jacq.) Katja Fruehwald-Koenig, Germany	**ID 117** Electricity Production Potential Using Date Palm Biomass Jamel Orfi, Saudi Arabia	**ID 145** A Green Surfactant from Date Seeds for Different Oil Field Applications Taha Moawad, Saudi Arabia
01:15 PM	**ID 029** Presentation of The Book (Date Palms By-products. Their Types and Economic Importance) Ramzy Aboaiana, Saudi Arabia	**ID 067** Optimization of Process Conditions for the Synthesis of High Efficacy Activated Carbon from Palm Leaflet Wastes for CO_2 Capture Ebrahim Al-Ghurabi, Saudi Arabia	**ID 026** Characterization of Raw and Chemically-Modified Date Palm Leaves Biomass and its Application for the Remediation of 2,4,6-Trichlorophenol from an Aqueous Environment Siva Kumar Nadavala, Saudi Arabia
01:30 PM	**Lunch/ Poster Session**		
03:00 PM	**Keynote 7** **Stanford Blade,** University of Alberta, Canada Agricultural Biomass: Towards a Circular Economy		
03:45 PM	**Plenary 2** **Guido Dr. Reinhardt,** IFEU-Institute for Energy and Environment, Germany Significant reductions in greenhouse gas emissions by optimized use of by-products from palm oil production: a comprehensive assessment		
04:15 PM	**Best Presentation and Poster Award/ Closing**		

POSTER PROGRAMME

ID 1
LIGNOCELLULOSIC COMPONENTS OBTAINED BY ORGANOSOLV DESTRUCTURATION OF BIOMASS MATERIAL
AMMAR Houcine | Faculty of Sciences of Sfax | Tunisia

ID 2
WATER ABSORPTION OF HDPE/WASHINGTONIA FILIFERA FIBER BIOCOMPOSITES: MODELING USING RSM AND GA-ANN
Ahmed Belaadi | University 20 aout 1955-Skikda | Algeria

ID 8
THE EFFECT OF SOME HORMONES ON THE IN VITRO CULTURE OF DATE PALM (PHOENIX DACTYLIFERA L.) OF BOU-SAÂDA, ALGERIA
Ahlem Guettouchi | The University of Mohamed Boudiaf | Algeria

ID 22
NANO CELLULOSE AND NANOCOMPOSITES FROM PALM BYPRODUCTS
Md. Zaved Hossain Khan | Jashore University of Science and Technology | Bangladesh

ID 27
VALORIZATION OF DATE STONES IN THE TREATMENT OF AQUEOUS EFFLUENTS BY ADSORPTION PROCESS
Taous Hamad | Djilali Bounaama university | Algeria

ID 32
ETHNOBOTANICAL SURVEY OF DATE PALM BYPRODUCTS USED IN SOUTHERN ALGERIA OASES: LOCAL KNOWLEDGE AND INTERESTS
Djamila Chabane | University of Sciences and Technology Houari Boumediene | Algeria

ID 44
THERMAL ANALYSES OF PALM DATE SEEDS
Bel Abbes Bachir Bouiadjra | University of Sidi Bel Abbes | Algeria

ID 45
EVALUATION AND COMPARISON BETWEEN DATE PALM FIBERS AND ALFA FIBERS COMPOSITES
Fekih Sidi Mohamed | LMPM, Department of Mechanical Engineering, University of Sidi Bel Abbes | Algeria

ID 47
RECOVERY OF PALM TREE WASTE INTO PLANT FIBRES FOR REINFORCING CONSTRUCTION CONCRETE.
KHALFI Yassine | université de Sidi Bel Abbes | Algeria

ID 54
EVALUATION OF QUALITY OF YOGHURT WITH THE ADDITION OF DATE SYRUP (ROB) AND STUDY OF ITS STABILITY DURING STORAGE BY REFRIGERATION
ALLIOUA Meryem | Institute of Applied Sciences and Techniques (ISTA) | Algeria

ID 60
HYDROGEN PRODUCTION VIA CATALYTIC METHANE DECOMPOSITION OVER IRON-SUPPORTED ON ACTIVATED CARBON DERIVED FROM WASTE DATE PALMS
Hamid Ahmed | King Saud University | Saudi Arabia

ID 62
ANTIOXIDANT AND ANTICHOLINESTERASE ACTIVITIES OF FRUITS AND STALKS OF THREE VARIETIES OF ALGERIAN PHOENIX DACTYLIFERA L.
Ahmed Kabouche | Université frères Mentouri-Constantine 1 | Algeria

ID 68
THE DATE PALM (PHOENIX DACTYLIFERA L.)FROM ALGERIA: AN OVERVIEW OF BIOLOGY, USES, AND CULTIVATION
Salah Akkal | The University of Mentouri | Algeria

ID 75
ANTIOXIDANT ACTIVITY AND PHENOLIC CONTENT OF EXTRACTS FROM TWO VARIETIES OF DATES GROWN IN TUNISIA
Younes Moussaoui | Faculty of Sciences of Gafsa | Tunisia

ID 78
DESIGN OF SUSTAINABLE OIL SPILL CLEANUP ADSORBENT MATERIAL USING AGRICULTURE WASTE
Alhanouf Alagil | Imam Abdulrahman bin Faisal University | Saudi Arabia

ID 80
STABILIZATION OF SUNFLOWER OIL DURING ACCELERATED STORAGE: USE OF DATE PALM LEAVES EXTRACT AS A POTENTIAL ALTERNATIVE TO SYNTHETIC ANTIOXIDANTS
Noura bin Jabreen | Al Qussaim university | Saudi Arabia

ID 82
CONCEPTUAL DESIGN OF ZERO WASTE DATES PROCESSING: FROM DATES TO VALUABLE PRODUCTS AND BYPRODUCTS
Abdelbasset Bessadok | King Saud University | Saudi Arabia

ID 88
SEPARATION AND IDENTIFICATION OF FATTY ACIDS FROM DATE SEED OIL USING GS-MS GAS CHROMATOGRAPHY MASS SPECTROSCOPY
Mahdi Alkinani | Governorate Maysan -Ministry of Agriculture – Directorate Agriculture of Maysan. | Iraq

ID 91
COMPARATIVE STUDY OF MECHANICAL BEHAVIOR BETWEEN AN ADHESIVE MADE FROM DATE PALM WASTE AND FM-73 ADHESIVE
Sofiane MAACHOU | Institute of Science and Technology, University Center of Maghnia | Algeria

ID 98
PALM WASTE HEAT UTILIZATION IN COOLING AND DRYING OF DATES
Jamel Orfi | King Saud University | Saudi Arabia

ID 99
EFFECT OF TREATMENT ON PROPERTIES OF NITRILE RUBBER REINFORCED WITH DATE PALM FIBERS
Othman Alothman | King Saud University | Saudi Arabia

ID 104
EFFECT OF ANNEALED STEEL SLAG DOSES ON THE PHYSICOCHEMICAL PROPERTIES OF BIOCHAR DERIVED FROM WASTE DATE PALM FRONDS
Hana Almarri | Immam Abdulrahman bin Fisal University- Science College | Saudi Arabia

ID 108
PREPARATION OF ACTIVATED CARBON FROM DATE PALM RACHIS BY CHEMICAL ACTIVATION: OPTIMIZATION AND APPLICATION FOR REMOVAL OF METHYL ORANGE
Hafidha Debbache | University Of Kasdi Merbah-Ouargla | Algeria

ID 123
INVESTIGATION THE FEATURES OF ALGAL BIOCHAR DOPED WITH GREEN SYNTHESIZED SILVER NANOPARTICLES FROM PALM LEAVES WASTE AND STUDY SOME OF THEIR POSSIBLE APPLICATIONS
Nadiyah M. Alabdallah | Imam abdulrahman bin faisal university | Saudi Arabia

ID 127
EVALUATION OF THE ANALYTICAL AND PHYTOCHEMICAL STUDY OF THE EXTRACTS FROM THE HEART OF PHOENIX DACTYLIFERA L
BEN SEGHIER MERIEM | University Of Kasdi Merbah Ouargla | Algeria

ID 133
VALORIZATION OF DATE PALM OASIS WASTES BY COMPOSTING PROCEDURE UNDER HOT ARID CONDITIONS OF ALGERIAN SAHARAN REGIONS
Oustani Mabrouka | University of Kasdi Merbah Ouargla | Algeria

ID 149
IN VITRO APPROACHES TO ASSESS THE EFFECTS OF DATE SYRUPS AND THEIR POLYPHENOL AVAILABILITY AND THE SUBSEQUENT IMPACT ON THE GUT MICROBIOTA IN RATS.
Randah Alqurashi | King Faisal University | Saudi Arabia

ID 154
A REVIEW ON APPLICATION OF ARTIFICIAL NEURAL NETWORK FOR INDUSTRY OF BYPRODUCTS OF PALMS
Abdulwahed Aboukarima | King Saud University | Saudi Arabia

ID 160
PHYSICO-CHEMICAL, MICROBIOLOGICAL AND TOXICOLOGICAL MONITORING OF COMPOST FROM MIXING PALM DATE RESIDUES AND URBAN SEWAGE SLUDGE
Oustani Mabrouka | University of Kasdi Merbah Ouargla | Algeria

ID 163
EFFECT OF PARTICLE SIZE ON BEHAVIOR OF BIOCOMPOSITE BASED ON DATE PALM SEED: DESTRUCTIVE AND NON-DESTRUCTIVE INVESTIGATION
REKBI Fares Mohammed Laid Research Center In Industrial Technologies -CRTI- | Algeria

ID 164
VALORIZATION OF OASIS WASTES BY COMPOSTING PROCEDURE IN THE SAHARAN REGIONS
Oustani Mabrouka | University of Kasdi Merbah Ouargla | Algeria

ID 168
SUSTAINABLE APPROACHES FOR THE FABRICATION OF CELLULOSE-POLYAMIDE MEMBRANES BASED ON DATE PALM LEAVES FOR WATER TREATMENT
Seham ALTERARY | King Saud University | Saudi Arabia

ID 169
CARBON NANOSTRUCTURES DERIVED FROM DATE PALM: OPPORTUNITIES AND APPLICATIONS
Saleh M Alluqmani | Umm AL-Qura University | Saudi Arabia

ID 173
ECO-FRIENDLY FABRICATION OF CU/AG FUNCTIONALIZED NANOCELLULOSE FOR BIOMEDICAL APPLICATIONS
Jegan Athinarayanan | King Saud University | Saudi Arabia

ID 206
ASSESSMENT OF DIFFERENT DATE PALM BASED MIXES FOR SOILLESS CULTURE
Mohammad Ali | Jazan University | Saudi Arabia

ID 211
EFFECT OF ADDING DATE PALM POLLEN GRAINS ON THE NUTRITIONAL VALUE, SENSORY AND NATURAL (PHYSICAL) PROPERTIES OF CAKE
Faia Nabil Almuhaytib | King Faisal University | Saudi Arabia

ID 217
Antimicrobial Activity of Green Synthesized Silver Nanoparticles Using Waste Leaves of Hyphaene thebaica (Doum Palm)
Sana Mohammed | Imam Abdulrahman Bin Faisal University | Saudi Arabia

ID 218
Design of an Efficient, Cost-Effective Date Palm-Derived Biochar- Silk Fibers for Oil Spills Cleanup
Asma Alqahtani | Imam Abdulrahman Bin Faisal University | Saudi Arabia

ID 219
Enhancing Arid Agriculture with Palm Byproducts and other polysaccharides: Sustainable Solutions and Innovations
Mohamed Hamid Salim | Khalifa University | United Arab Emirates

ID 221
Stabilization of Sunflower Oil During Accelerated Storage: Use of Date Palm Leaves Extract as a Potential Alternative to Synthetic Antioxidants
Norah Bin Jibrin | Qassim University | Saudi Arabia

ID 222
Producing Biochar from Date Palm Tree Residues and its Economic Uses in Agriculture
Hesham Ghazzawy | Date Palm Research Center of Excellence, King Faisal University | Saudi Arabia