

## Table of contents

DOCUMENTS ISSUANCE VALIDATION USING 2D BARCODE <b>Mohammad A. TAHA ALDABBAGH</b> .....	1
DOCUMENTS ISSUANCE VALIDATION USING 2D BARCODE <b>Mohammad A. TAHA ALDABBAGH</b> .....	10
IMPACT OF FOLIAR APPLICATION OF CHELATED ZINC ON THE SEASONAL CHANGES OF GROWTH AND DEVELOPMENT OF GRAPE BERRIES (VITIS VINIFERA L.) <b>Wurood Hamza MUTTALEB &amp; Zainab Haider ALI</b> .....	18
KNOWLEDGE OF ENDOCRINE-DISRUPTING CHEMICALS DURING PREGNANCY AND FOETAL DEVELOPMENT <b>Aseel Ibrahim SUHAEL</b> .....	35
THE OPTIMUM LOCATION OF CONCRETE SHEET PILES UNDER HYDRAULIC STRUCTURE AFFECTED THE SEEPAGE WATER PRESSURE USING ANSYS PROGRAM <b>Manal A. MUHAMMED, Muthik A. GUDA &amp; Jaafar B. ALGBURI</b> .....	46
EFFECT OF DIFFERENT DOSES OF IVERMECTIN ON BIOMARKER HORMONE OF ADRENAL GLAND AND HISTOLOGY OF IT IN LOCAL FEMALE RABBITS <b>Bushra F. HASAN, Shaymaa Z.AL RUMAIDH, Abdulrazzak N. KHUDAIR &amp; Nawras A. ALWAN</b> .....	60
EFFECTS OF ENHANCER DIESEL FUEL AND VIBRATING WINGS SUBSOILER PLOW ON THE PERFORMANCE OF AN AGRICULTURAL TRACTOR <b>Hussam T. TAHA, Yousif Y. HILAL &amp; Raqeeb H. RAJAB</b> .....	71
DETERMINE THE MOST APPROPRIATE DATE FOR PLANTING BROCCOLI (BRASSICA OLERACEAE L. VAR. ITALICA) SEEDS IN NINEVEH GOVERNORATE <b>Fathel F. R. IBRAHEEM, Abdelmonnem S. KAHLEL, Hussien J.M. AL-BAYATI &amp; Aknan A. M. AL- KAWAZ</b> .....	81
ISOLATION AND MOLECULAR IDENTIFICATION OF PHYTOPHTHORA INFESTANS (MONT.) DE BARY THE CAUSAL AGENTS OF POTATO LATE BLIGHT <b>Huda Z. AL-TAAE, Ali K. AL-TAAE &amp; Hussein J. AL-BAYATI</b> .....	88
THE EFFECT OF SULFONYLUREAS DRUGS ON KIDNEY AND LIVER FUNCTIONS IN TYPE 2 DIABETIC PATIENTS <b>Noor Khalid ZAIDAN, Wisam Mahmoud MOHAMMED &amp; Hiba A.K.AL-HADITHE</b> .....	97

ANALYTICAL DETECTION OF HEAVY METALS IN COSMETIC <b>Hana Sh. MAHMOOD, Ahlam A.SHEHAB &amp; Nada A. KHALIL</b> .....	103
MOLECULAR IDENTIFICATION OF ANGUINA FUNESTA THE CAUSAL AGENT OF BARLEY EAR COCKLE DISEASE IN NINEVEH PROVINCE – IRAQ <b>Yousef M. A, &amp; Ali K. AL TAAE</b> .....	108
FABRICATION SENSORS BASED ON NANOCOMPOSITES ZnO/PVDF <b>Amel D. HUSSEIN</b> .....	123
HYPOGLYCAEMIC AND ANTIHPERGLYCAEMIC ACTIITIES OF AQUEOUS EXTRACT OF FICUS CARICA IN DIABETIC RATS <b>Shahbaa M. AL-KHAZRAJ &amp; Ihsan K. KHALIL</b> .....	137
THE EXTENT OF ADHERENCE TO THE ROUTINE VACCINATION SCHEDULE FOR CHILDREN IN TIME OF CORONA PANDEMIC <b>Haider Y. ABDULRAZAQ &amp; Farzdaq Fakhir GATAE</b> .....	136
SEPARATION AND IDENTIFICATION OF A NUMBER OF UNSATURATED FATTY ACIDS FROM DIFFERENT TYPES OF ALGAE <b>Mohammed A.H.ALOBEADY &amp; Mira Ausama AL-KATIB</b> .....	145
REVIEW ON STIMULATIONS OF THE SPREAD OF HELICOBACTER PYLORI INFECTION IN IRAQ <b>Tamara Abbas HAMED&amp; Batool Abd Al Ameer BAQER</b> .....	160
A COMPARISON BETWEEN NOSQL AND RDBMS: STORAGE AND RETRIEVAL <b>Sameera Abbas FADHEL&amp; Enas Ali JAMEEL</b> .....	173
EFFECT OF SODIUM CHLORIDE ON STEVIA PLANT GROWTH IN VITRO <b>Hiba A. JAWAD, Nahlah H. HUSSEIN&amp; Fadia F. SALEH</b> .....	185
SYNTHESIS OF TRIPODAL BORATE LIGAND WITH NI(II) AND CU(II) COMPLEXES <b>Asmaa Mohammed Noori KHALEEL</b> .....	192
IMPACT ASSESSMENT OF CREATINE ON MANY PHYSIOLOGICAL AND BIOCHEMICAL SCALES IN MALE RABBITS <b>Nawras A. ALWAN, Eman Aboud AL-MASOUDI &amp;Alia M. KUDAYER</b> .....	202
FRONTIERS IN EARLY DETECTION OF HEPATOCELLULAR CARCINOMA <b>Hussain Ibrahim HUSSAIN, Ruqayah Ali SALMAN &amp; Shaimaa S. MUTLAK</b> .....	211

SJ-FLAT MODULES	
<b>Ashwaq Medhloom JUDDAH&amp; Akeel Ramadan MEHD</b> .....	221
THE EFFECT OF HYPERTENSION ON THE LITERAL CELLS LINING THE CHEEK AREA IN THE MOUTH	
<b>Shatha Hizem SHAKE, Muzayyan Fadhly NAMIK&amp;Al-Yakthan Ali SALIH</b> .....	231
PREPARATION OF ACTIVATED CARBON FROM (PISTACIA KHINJUK PEELS) AND STUDY ITS CHEMICAL PROPERTIES	
<b>Farah K. HAMMOUD, Alaa Ali HUSSEIN &amp;Ebtehag .Z.SULYMAN</b> .....	240
EFFECT OF NANO SILICA ON PROPERTIES OF CONCRETE	
<b>Hanaa Shihab HAMADI, Rafid Saeed ATEA &amp; Shaymaa Mahmood BADR</b> .....	249
FIRST RECORD for WATERMELON NECROSIS DISEASE on WATERMELON CROP in IRAQ	
<b>Qais K ZEWAIN</b> .....	260
EVALUATION OF THE EFFICIENCY OF SOME NANOCOMPOSITES IN ROOT-KNOT NEMATODES (MELOIDOGYNE SPP.) UNDER LABORATORY CONDITIONS	
<b>Sama Amer Abbas EL-TEKRET, Liqaa Hussein MOHAMMED2, Ebtehal Jawad ALZAIDI &amp; Estabraq Mohammed ABDALREDA</b> .....	271
ANALYSIS STUDY OF BOUNDARY LAYER OF AIR FLOWING ON A FLAT PLATE	
<b>Sarah Burhan EZZAT, Yousif Khudair ABASS , Qusay Kamil JASIM &amp; Ahmed E. AHMED</b> .....	279
EFFECT OF FLAVONOIDS ON THICKNESS AND DIAMETER OF TESTICULAR SEMINIFEROUS TUBULES IN ADULT MALES WISTAR RATES EXPOSED TO OXIDATIVE STRESS BY LEAD ACETATE	
<b>Zahraa Hussein KADHIM</b> .....	291
THE USE OF MODULAR NETWORKS IN ARCHITECTURAL CONSTRUCTION METHODS	
<b>Ashwaq MEDHLOOM JUDDAH</b> .....	311
THE HISTOPATHOLOGICAL EFFECT OF HIGH DOSES OF MAGNESIUM ON KIDNEY	
<b>Roaa S. ALRAWI, Lina A.JEBUR, &amp; Layla Qais JAWAD</b> .....	321
SYNTHESIS, SPECTROSCOPIC, THERMAL AND BIOLOGICAL STUDIES of SOME NOVEL METAL IONS COMPLEXES	
<b>Alyaa Khider ABBAS</b> .....	331

MODIFICATION OF WASTE POLYSTYRENE AND INVESTIGATION OF ITS CONDUCTIVE CHARACTERISTICS WITH THE ADDITION OF ANTHOCANDIEN PIGMENT DERIVED FROM EGGPLANT PEEL	
<b>Muhsen Chelab MUHSEN, Hikmat Abualrahim ALI &amp; Fatima H. MALK</b> .....	349
ASSESSMENT AND MANAGEMENT OF THE RISKS OF CORROSION IN METALLIC PIPELINES	
<b>Mohamed RMAIDA</b> .....	356
DC ELECTRICAL CONDUCTIVITY OF TETRA-DIIMINO BENZENE-PAMINO BENZENE PHTHALOCYANINATO METAL (II) & (III)	
<b>Nazar A. HUSSEIN, &amp; Thuraya M. IBRAHIM</b> .....	374
THE OPTIMUM LOCATION OF CONCRETE SHEET PILES UNDER HYDRAULIC STRUCTURE AFFECTED THE SEEPAGE WATER PRESSURE USING ANSYS PROGRAM	
<b>Manal A. MUHAMMED, Muthik A. GUDA, Jaafar B. ALGBURI &amp; Ahmed Yousif JAWAD</b> .....	382
SEPARATION AND IDENTIFICATION OF A NUMBER OF UNSATURATED FATTY ACIDS FROM DIFFERENT TYPES OF ALGAE	
<b>Dawood S. MADAB &amp; Suaad M. HASSEN</b> .....	396
THE EFFECT OF THE SEDIMENTS OF THE HILLA RIVER ON THE CHARACTERISTICS OF THE ADJACENT SOILS (BABYLON GOVERNORATE)	
<b>Iman A. HAMEED, Haleema Abdul Jabbar ABDUL RAHMAN, &amp; Alsaadi ANMAR</b> .....	406
DETECTION OF TRICHOMONAS VAGINALIS IN WOMEN WITH VAGINITIS IN MOSUL CITY	
<b>Sarah Burhan EZZAT, Yousif Khudair ABASS , Qusay Kamil JASIM &amp; Ahmed E. AHMED</b> .....	426
EFFECT OF MICROWAVE RADIATION ON THE VIABILITY OF ESCHERICHIA COLI AND STAPHYLOCOCCUS AUREUS	
<b>Mehraban T.AHMED, Akhink A.HASSAN, Yousra Y.HUSSEIN &amp; Ali YAHYA SAEED</b> .....	441
THEORETICAL STUDIES OF [KMNO <sub>4</sub> ]X USING FIRST PRINCIPLES CALCULATIONS	
<b>Hussein NEAMA NAJEEB, Hassan A.MAJEED &amp; Mohammed J.JADER</b> .....	447
MOLECULAR DIAGNOSIS OF DIFFERENT ISOLATES OF SEED GALL NEMATODE (ANGUINA TRITICI) IN IRAQ AND IT'S CONTROL	
<b>Noor Ebraheem Qassem AL-BADRANY, Huda Hazim Wafi AL-TAEE , Qusay Kamil JASIM &amp; Ali Hamood THANOON</b> .....	457

EFFECT OF NANO-ABAMECTIN IN COMBATING THE TWO-SPOTTED SPIDER MITE TETRANYCHUS URTICAE KOCH (ACARI: TETRANYCHIDAE) UNDER LABORATORY CONDITIONS <b>Isra W. SALEM, Tawfiq M. ALANTARY &amp; Mahmoud A. ALAW</b> .....	477
SURGICAL TREATMENT OF THE FIFTH METACARPAL FRACTURES. RETROSPECTIVE STUDY ABOUT 30 CASES <b>Abdelaziz KEROUMA</b> .....	484
CRISIS MITIGATION OF DISAPPEARING PRIVATE GREEN SPACES THROUGH SUSTAINABLE SOLUTIONS - CASE STUDY IN BAGHDAD (IRAQ)S <b>AL-HELLI Marwah</b> .....	490
MICROSERVICES VS. MONOLITHIC ARCHITECTURES [THE DIFFERENTIAL STRUCTURE BETWEEN TWO ARCHITECTURES] <b>Nada Salaheddin ELGHERIANI &amp; Nuredin Ali Salem AHMED</b> .....	500
ON $iR$ -CONTINUOUS AND $iR$ -CONTRA CONTINUOUS FUNCTIONS IN TOPOLOGICAL SPACE <b>Sumaya A. ABED</b> .....	515
IN VITRO SELECTION BASAL MEDIUM USED FOR SEEDS GERMINATION, CALLOGENESIS INDUCTION OF LOCAL VARIETIES OF VICIA FABA L <b>A.H. AL MAMMOOR &amp; Zina MOHAMMED SARHA</b> .....	523
GREEN SYNTHESIS OF NEW HYDRAZONE DERIVATIVES <b>Harith. M. AL-AJELY</b> .....	530
SOME NEW SEMI-NORMED DIFFERENCE ENTIRE SEQUENCE SPACES OF FUZZY REAL NUMBERS DEFINED BY A DOUBLE ORLICZ FUNCTIONS <b>Leena ABED MUSLIM KADHIM, Wissam JALIL KARIM &amp; Zainab ABDUL-ZAHRA NAJM</b> .....	536
EVALUATION OF THE OPTIMAL KI-67 CUTOFF VALUE DETERMINING GRADES OF GLIOMA IN TURKISH POPULATION <b>Tiba Idham MOHAMMED</b> .....	545

THE EFFECT OF FUNCTIONALIZED MULTI-WALLED CARBON NANOTUBES (F-MWCNTS) ON TOMATO PLANTS (SOLANUM LYCOPERSICUM)

**Nuralhuda Aladdin JASIM** ..... 558

ECOTOURISM AND CULTURAL INTEREST OF A NATURAL SITE: KARST LANDSCAPE IN A CAVE OF EL KAF IN THE ORIENTAL REGION OF MOROCCO

**Khalid EL BEKKAYE, Yassine EL BEKKAYE, Hicham MHAMDI, Abderrahman HADINI, Mourad BENDADA, KAJEIOU Hamza, Mounia KHOUKHOUCI & KHNAIJER Btissam** ..... 574