



# 7. ULUSLARARASI HASANKEYF BİLİMSEL ARAŞTIRMALAR VE İNOVASYON KONGRESİ 23-24 ŞUBAT 2024 BATMAN KONGRE KİTABI

EDİTÖRLER:

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**SESSION-4 HALL-3**  
**MODERATOR: Prof. Dr. Jamal Eddine Salhi**

Africa/Afghanistan/ Azerbaijan/ Algeria/ Brazil/ English/ France/ Gurcistan/ Indonesia/ India/ Iran/ Japan/ Kazakhstan/  
Kosovo/ Macedonia/ Malaysia/Morocco/ Nigeria/ Oman/ Pakistan /Portugal/ Romania /Russia/ Saudi Arabia/ Serbia/ Ukraine/

<b>AUTHORS</b>	<b>AFFILIATION</b>	<b>TOPIC TITLE</b>
Hadj Mohamed OUNIS Abdelhafid OUNIS	Dr., Mostefa Ben Boulaid University, Algeria Pr., Mohamed Khider University, Algeria	Validation of Algerian Earthquake Regulations' Compatibility with Seismic Base Isolation Techniques for Buildings: A Comparative Study with International Codes.
Mohamed Aatabe Reda El Abbadi	Ibn Zohr University, Morocco	A novel stochastic energy management strategy based on Markov decision process for photovoltaic micro-grid under unpredictable load consumption
Ph.D. Stanislav Dushkin	National University of Civil Protection of Ukraine	Organization And Management Of Chemical Water Treatment Processes At Industrial Enterprises
Omar Britel* Asmae Fitri Adil Touimi Benjelloun Mohammed Benzakour Mohammed Mcharfi	Sidi Mohamed Ben Abdellah University, Fez, Morocco	Significant Improvement in the Electronic and Photovoltaic Properties of Carbazole-Based Organic Sensitizers for Solar Cells: A Theoretical Study
M. Oubella S. Ben Jadi M. El Fazdoune K. Bahend E.A. Bazzaoui J.I. Martins R. Wang M. Bazzaoui	Université Ibn Zohr, Agadir, Morocco Avenue Oued Ziz, BP Agadir, Morocco. Université Mohammed Ier, Morocco. Rua Roberto Frias, Porto, Portuga. Miyake, Saeki-ku, Hiroshima, Japan	Tailoring Surface Properties of Plexiglas for Enhanced Adhesion and Wettability
Hmidi Nassreddine Prof. Dr. Jamal Eddine Salhi Prof. Dr. Alami Merrouni Ahmed Prof. Dr. Chaabelasri Elmiloud	Mohammed 1st, University Oujda, Morocco. Abdelmalek EssaadiUniversity, Tetouan, Morocco	The Innovative U-shaped Aluminum Cold Plate LiFePo 4 Battery Thermal Management System.
Prof. Dr. Syed Ali Raza Naqvi Luqman Hakeem Muhammad Nadeem Lodhi Muhammad Ramzan Saeed Ashraf Janjua	Government College University Faisalabad, Pakistan	Comparison Of Europium Doped $\Gamma$ -Phase Alumina Synthesized By Glycothermal, Hydrothermal And Precipitation Methods By Using Simple Precursors

## ORGANIZATION AND MANAGEMENT OF CHEMICAL WATER TREATMENT PROCESSES AT INDUSTRIAL ENTERPRISES

**Ph.D. Stanislav Dushkin**

National University of Civil Protection of Ukraine

### ABSTRACT

The need for industrial water treatment processes, or water preparation for industrial enterprises, is explained by significant trends of modernity. Technologies are constantly evolving, new requirements are being put forward for raw materials and auxiliary materials for various technological stages. All tasks related to water treatment that enterprises will have to solve in the course of their work can be grouped into two major categories. The first focuses on ensuring maximum process efficiency, while the second involves creating products of proper quality.

Water, as a valuable resource for the technological process, can perform several functions: raw material for the production of food, pharmaceutical, cosmetic, chemical, paper, and other products, directly affecting their quality level; technological working material for creating solutions, equipment washing, etc., which is important for equipment (often expensive), its service life, and to some extent for the quality of the products produced; circulating (repeatedly involved in technological processes) water necessary for the functioning of heating and conditioning systems, for technical heating and cooling areas, and similar purposes, in order to increase the equipment's service life. The importance of the role of a chemical water treatment operator in ensuring the safe and efficient operation of water treatment systems at industrial enterprises is considered.

The requirements for the qualifications and duties of the operator, as well as the processes he performs to ensure the appropriate water quality in chemical technological processes, are described. Key aspects of chemical water treatment management and methods for dealing with possible problems are indicated. The "Chemical Water Treatment Operator" is responsible for the safe operation of the industrial enterprise's water treatment system and must know the rules of technical operation, technical safety rules, inter-industry rules on labor protection, general industrial safety rules, typical provisions on the chemical workshop, and other guiding and regulatory documents. The qualification characteristics of the "Chemical Water Treatment Operator" include: shift handover and acceptance, equipment preparation for operation and startup, implementation of water treatment and water preparation processes, control of equipment and measuring instruments, completion and termination of water treatment and water preparation work. Work characteristics:

- Conducting the process of chemical water treatment: according to the scheme of sedimentation with preliminary reagent treatment of water in clarifiers, according to the scheme of sedimentation on sodium cationite and hydrogen cationite filters.
- Conducting the process of water desalination and desilicization by ion exchange under the guidance of a more highly qualified operator.
- Regeneration of ion exchange filters with salt solutions, acids, alkalis.
- Regulation of technological process parameters based on measurement tool indicators and chemical analysis results.
- Determination of the quality indicators of desalinated water: silicon acid ions, sodium, conductivity. Starting and stopping serviced equipment.
- Identification and elimination of malfunctions in equipment and communications. Emergency situation liquidation.



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**of participant**

This is to certify that

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*In online and technical solo exhibition, recognition and appreciation of research contributions to*

**7. INTERNATIONAL HASANKEYF SCIENTIFIC RESEARCH AND INNOVATION CONGRESS**

**23-24 FEBRUARY 2024 BATMAN/TURKEY**

*with the paper entitled*

**“ Organization And Management Of Chemical Water Treatment Processes At Industrial Enterprises ”**

Uzm. Yasemin AÇAOĞLU  
Head Of Congress Group

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