الأبحاث العلمية :د/ هبة بدران

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| **No.** | **Title of the paper / book** | **Date of publication** | **Journal/publisher** |
| **1** | TM-doped Mg12O12 nano-cages for hydrogen storage applications: Theoretical study. | 2022 | Results in Physics.  *Elsevier* |
| **2** | The impact of an external electric field on methanol adsorption on XB11N12 (X=B, Co, Ni) nano-cages: A DFT and TD-DFT study. | 2021 | Journal of Physics and Chemistry of Solids.  *Elsevier* |
| **3** | DFT and TD-DFT studies of halogens adsorption on cobalt-doped porphyrin: Effect of the external electric field. | 2021 | Results in Physics.  *Elsevier* |
| **4** | Ti deposited C20 and Si20 fullerenes for hydrogen storage application, DFT study. | 2021 | International Journal of Hydrogen Energy.  *Elsevier* |
| **5** | p-CuO/n-ZnO Heterojunction Structure for the Selective Detection of Hydrogen Sulphide and Sulphur Dioxide Gases: A Theoretical Approach. | 2021 | Coatings.  *MDPI* |
| **6** | TM-doped B12N12 nano-cage (TM= Mn, Fe) as a sensor for CO, NO, and NH3 gases: A DFT and TD-DFT study. | 2020 | Materials Today Communications.  *Elsevier* |
| **7** | Interaction and detection of formaldehyde on pristine and doped boron nitride nano-cage: DFT calculations. | 2020 | Materials Today Communications.  *Elsevier* |
| **8** | A DFT study on the effect of the external electric field on ammonia interaction with boron nitride nano-cage. | 2020 | Journal of Physics and Chemistry of Solids.  *Elsevier* |
| **9** | Effect of CO adsorption on properties of transition metal doped porphyrin: A DFT and TD-DFT study. | 2019 | Heliyon.  *Elsevier* |
| **10** | ZnO nanocrystal-based chloroform detection: Density Functional Theory (DFT) study. | 2019 | Coatings.  *MDPI* |
| **11** | Indoor Radon Levels and Annual Effective Dose in Dwellings of Najran City, Saudi Arabi. | 2018 | Key Engineering Materials.  *Trans Tech Publications* |
| **12** | Lithium-doped Hydroxyapatite Nano-Composites: Synthesis, Characterization, Gamma Attenuation Coefficient and Dielectric Properties. | 2017 | Radiation Physics and Chemistry.  *Elsevier* |
| **13** | Measurements of the equilibrium factor and radon dose in some houses in Cairo, Egypt using activated charcoal canister | **2011** | Arab journal of nuclear sciences and applications. |
| **14** | Determination of the equilibrium factor between radon and its progency by active and passive techniques | **2009** | Isotope and Radiation Research |
| **15** | Dependence of Rn adsorption rate and effective half-life time on diffusion barrier type and moving air environment. | **2005** | Radioisotopes |
| **16** | Effect of moving air and variable radon concentration on the response of charcoal canister. | **2005** | Radiation measurement |