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| **No.** | **Title of the paper** | **Date of publication** | **Journal/publisher** | **Authors** |
| 1 | TM-doped Mg12O12 nano-cages for hydrogen storage applications: Theoretical study | 2022 | Results in Physics | **H. Y. Ammar**,  Kh. M. Eid,  H. M. Badran |
| 2 | [Fabrication and characterization of high-performance photodetectors based on Au/CdS/Au and Au/Ni: CdS/Au junctions](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=nA6Rq4QAAAAJ&sortby=pubdate&citation_for_view=nA6Rq4QAAAAJ:dhFuZR0502QC) | 2021 | Journal of King Saud University-Science | Hasan Albargi,  ZR Khan,  R Marnadu,  **HY Ammar,** Hassan Algadi,  Ahmad Umar,  IM Ashraf,  Mohd Shkir |
| 3 | [p-CuO/n-ZnO Heterojunction Structure for the Selective Detection of Hydrogen Sulphide and Sulphur Dioxide Gases: A Theoretical Approach](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=nA6Rq4QAAAAJ&sortby=pubdate&citation_for_view=nA6Rq4QAAAAJ:QIV2ME_5wuYC) | 2021 | Coatings | H Albargi,  **HY Ammar**,  HM Badran,  H Algadi,  A Umar |
| 4 | [The impact of an external electric field on methanol adsorption on XB11N12 (X= B, Co, Ni) nano-cages: A DFT and TD-DFT study](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=nA6Rq4QAAAAJ&sortby=pubdate&citation_for_view=nA6Rq4QAAAAJ:Wp0gIr-vW9MC) | 2021 | Journal of Physics and Chemistry of Solids | **H. Y. Ammar**,  Kh. M. Eid,  H. M. Badran |
| **5** | DFT and TD-DFT studies of halogens adsorption on cobalt-doped porphyrin: Effect of the external electric field. | 2021 | Results in Physics | H. M. Badran,  Kh. M. Eid,  **H. Y. Ammar** |
| **6** | Ti deposited C20 and Si20 fullerenes for hydrogen storage application, DFT study | 2021 | International Journal of Hydrogen Energy | **H. Y. Ammar**,  H. M. Badran |
| **7** | Urchin like CuO hollow microspheres for selective high response ethanol sensor application: Experimental and theoretical studies | 2021 | Ceramics International | A. Umar,  A. A. Ibrahim,  **H.Y.Ammar,**  U. T. Nakate,  H.B. Albargi, Y.B.Hahn |
| **8** | 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 | **H. Y. Ammar,**  H. M. Badran,  Kh. M. Eid |
| **9** | Interaction and detection of formaldehyde on pristine and doped boron nitride nano-cage: DFT calculations | 2020 | Materials Today Communications | **H. Y. Ammar,**  Kh. M. Eid,  H. M. Badran |
| **10** | 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 | H. M. Badran,  **H. Y. Ammar,**  Kh. M. Eid |
| **11** | Square disks‐based crossed architectures of SnO2 for ethanol gas sensing applications—An experimental and theoretical investigation | 2020 | Sensors and Actuators B: Chemical | A. Umar,  **H.Y. Ammar,**  R. Kumar,  A. A. Ibrahim,  M.S. Al-Assiri |
| **12** | Theoretical Study on the Effect of FA: Be+2, FA: Mg+2, and FA: Ca+2 Centers on the Electronic and Optical Properties of LiF (001) Surface | 2020 | Journal of Nanoelectronics and Optoelectronics | E. Nassr,  **H. Y. Ammar** |
| **13** | Efficient H2 gas sensor based on 2D SnO2 disks: Experimental and theoretical studies | 2020 | International Journal of Hydrogen Energy | A. Umar,  **H.Y. Ammar,**  R. Kumar,  T. Almas,  A. A. Ibrahim,  M.S. AlAssiri,  M. Abaker,  S.Baskoutas |
| **14** | ZnO nanocrystal-based chloroform detection: Density functional theory (DFT) study | 2019 | Coatings | **H.Y. Ammar,**  H.M. Badran,  A. Umar,  H. Fouad,  O.Y. Alothman |
| **15** | Effect of CO adsorption on properties of transition metal doped porphyrin: A DFT and TD-DFT study | 2019 | Heliyon | **H. Y. Ammar**,  H. M. Badran |
| **16** | CH2O adsorption on M (M = Li, Mg and Al) atom deposited ZnO nano-cage; DFT study. | 2018 | International Conference on Materials Science and Engineering: Recent Advances and Challenges  ICMSE-RAC, Egypt | **H.Y. Ammar** |
| **17** | Adsorption of CO on TM-deposited (MgO)12 nano-cage (TM=Ni, Pd and Pt): A study on electronic properties | 2018 | Journal of Nanoelectronics and Optoelectronics | * E.R. El-gharkawy, **H.Y. Ammar** |
| **18** | Adsorption and Magnetic Properties of Cu11MO12 (M=Cu, Ni and Co): ab initio Study | 2017 | Results in Physics | I.A. Abdel-Latif,  **H.Y. Ammar** |
| **19** | Vibrational Spectroscopic analysis of aluminum phthalocyanine chloride. experimental and DFT study | 2016 | Physica B | I.M. Soliman, M.M. El-Nahass, Kh.M. Eid, **H.Y.Ammar** |
| **20** | Adsorption of NO Molecule on Oxygen Vacancy-Defected MgO Nanotubes: DFT Study | 2014 | European Journal of Scientific Research | **H.Y. Ammar,**  E.R. El-gharkawy |
| **21** | NO2 Interaction with Au Atom Adsorbed on Perfect and Defective MgO(100) Surfaces: Density Functional Theory Calculations | 2013 | Journal of Nanoscience and Nanotechnology | **H.Y. Ammar,**  Kh. M. Eid |
| **22** | A density functional study of NO2 adsorption on perfect and defective MgO (1 0 0) and Li/MgO (1 0 0) surfaces | 2012 | Applied Surface Science | Kh. M. Eid,  **H.Y. Ammar** |
| **23** | Adsorption of SO2 on Li atoms deposited on MgO (1 0 0) surface: DFT calculations | 2011 | Applied Surface Science | Kh. M. Eid,  **H.Y. Ammar** |
| **24** | Artificial polarization effects on FA1:Sr2+ lasers and NO interactions at NaCl (0 0 1) surface: First principles calculations | 2007 | Journal of Molecular Structure THEOCHEM | A.S. Shalabi,  S. Abdelaal,  W.S. Abdel Halim,  **H.Y. Ammar** |
| **25** | The role of oxidations states in FA1 Tln+(n=1,3) lasers and CO interactions at the (100) surface of NaCl: An ab initio study | 2006 | Chemical Physics | A.S. Shalabi,  S. Abdelaal,  M. A. Kamel,  H.O. Taha,  **H.Y. Ammar,**  W.S. Abdel Halim |
| **26** | Ab initio defect based model for laser light generation and color image formation at the flat, edge and corner surfaces of AgBr: FA1:Cs+ and FA2:Li+ | 2005 | Journal of Molecular Structure THEOCHEM | A. S. Shalabi  M. A. Kamel,  **H.Y. Ammar,**  W.S. Abdel Halim,  S. Abdelaal |
| **27** | Theoretical study of laser light generation and color image formation: FA1:Cs+ and FA2:Li+ centers at the low coordination (100) and (110) surfaces of AgCl and AgBr | 2005 | International Journal of Quantum Chemistry | A. S. Shalabi,  M.A. Kamel,  **H.Y. Ammar** |
| **28** | Properties of F+, F and F- electron centers and adsorptivity of atomic H on LiF and NaH isoelectronic crystals: an ab initio study | 2001 | Physica B Condensed Matter | A. S Shalabi,  A. M. El Mahdy,  M.A. Kamel,  **H.Y. Ammar** |
| **29** | Excitons, electron center diffusion and adsorptivity of atomic H on LiH (0 0 1) surface: Ab initio study | 2000 | Physica B Condensed Matter | A. S Shalabi,  A. M. El Mahdy,  M.A. Kamel,  **H.Y. Ammar** |