



السيرة الذاتية

أ. د. عدنان يوسف حسين

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ملخص تعريفي:

الاسم: عدنان يوسف حسين
مختص ومهتم بدراسة الفيزياء النظرية والتي تتعامل مع ميكانيك الكم وتطبيقاته وتطوير الطرق و البرامج الحاسوبية المتعلقة بهذا الموضوع. مشاريعي العلمية الحالية تصب على دراسة الاطياف الذرية للايونات السالبة حيث قمت بنشر عدة بحوث في مجلات عالمية رصينة تتعلق بهذا الموضوع.

- مكان العمل: قسم الفيزياء.
- اللقب العلمي: استاذ.

الشهادات الدراسية:

- دكتوراه : جامعة النهرین / كلية العلوم / العراق 2006.
- ماجستير : جامعة النهرین / كلية العلوم / العراق 1998.
- بكالوريوس: جامعة النهرین / كلية العلوم / العراق 1995.

الجوائز والتكريم الأكاديمي

الحصول على منحة لدراسة مابعد الدكتوراه في المكسيك.

Post-doctoral fellow at Universidad Nacional Autonoma de Mexico / Department of Theoretical Physics, Institute of Physics (2013-2014).

الخبرة الأكademية والتدريس:

- #1: Nonrelativistic Configuration Interaction (CI).
- #2: Relativistic Configuration Interaction.
- #3 Multiconfiguration Hartree-Fock (MCHF).
- #4 Relativistic Multiconfiguration Hartree-Fock.

المقررات الدراسية التي تم تدريسها:

الدراسات الأولية	الدراسات العليا
ميكانيك الكم	ميكانيك الكم المتقدم
النظرية الكهرومغناطيسية	
ميكانيك كلاسيكي	
ميكانيك احصائي	
ثرمودينامك	
ميكانيك كلاسيكي	

- 1- Configuration-interaction calculations on the $3s^23p^n$ configuration of neutral phosphorus and two of its ions. Adnan Y. Hussein, Phys. Rev. A, **105**, 012809 (2022).
- 2- CI calculations for ground and the lowest core-excited states of Li and Li^- . Adnan Y. Hussein, Physica B: Condensed Matter, **570**, 66 (2019).
- 3- Excited state electron affinity calculations for aluminum. Adnan Y. Hussein, Ind. J. Phys., **92**, 436 (2017).
- 4- Fine structure intervals $^2P_{3/2}^o - ^2P_{1/2}^o$, $^2P_{3/2} - ^2P_{1/2}$ and electric dipole transition rate $^2P_{3/2} - ^2P_{1/2}^o$ in phosphorus isoelectronic sequence $15 \leq Z \leq 50$ and phosphorus ions, Adnan Y. Hussein, Journal of Babylon University, **25**, 1767 (2017).
- 5- CI calculations of the ground state ionization potential and electron affinity of Aluminum. Adnan. Y. Hussein, Acta. Phys. Pol. A 128, 268 (2015).
- 6- Core-polarization effect on ionization potential and electron affinity of aluminum. Adnan. Y. Hussein, Journal of the College of Education, **2**, 625 (2015).
- 7- Hyperfine structure in aluminum isotopes, Adnan. Y. Hussein, Journal of the College of Education **2**, 126 (2011).
- 8- Breit interaction and radiative QED corrections in carbon isoelectronic sequence and in the atoms $1 \leq Z \leq 104$, A. Yousif Hussein, Engineering and Technology Journal, **28**, 7004 (2010).
- 9- Electric dipole E1 transitions in neutral carbon atom, Adnan Y. Hussein, Journal of the College of Education **3**, 141 (2009).
- 10- Breit interaction effect in atoms. Adnan Y. Hussein, Journal of the College of Education, **1**, 785 (2009).
- 11- 2- Core-polarization effect in elastic electron scattering from ^{29}Si , R. A. Radhi, Adnan Y. Hussein and K. Al-Bayati, Journal of the College of Education, **3**, 297 (1999).
- 12- Backfire antenna with multiple flat reflectors and rectangular aperture as feed element, R. Al Rashed and Adnan Y. Hussein, Journal of Islamic Academy of Sciences, **4**, 175 (1995).

Curriculum Vitae

Dr. Adnan Yousif Hussein

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PERSONAL SUMMARY:

- **Birthday:** 1971.
- **Present address:** Department of Physics.
- **Current position:** professor.

EDUCATION:

- Ph.D. #1: 2006 (College of Science/Al Nahrain University, Iraq).
- M.Sc. #2: 1998 (College of Science/Al Nahrain University, Iraq).
- B.Sc. #3: 1995 (College of Science/Al Nahrain University, Iraq).

ACADEMIC HONORS AND AWARDS:

- Post-doctoral fellow at Universidad Nacional Autonoma de Mexico / Department of Theoretical Physics, Institute of Physics (2013-2014).

ACADEMIC /TEACHING EXPERIENCE:

- #1: Nonrelativistic Configuration Interaction (CI).
- #2: Relativistic Configuration Interaction.
- #3 Multiconfiguration Hartree-Fock (MCHF).
- #4 Relativistic Multiconfiguration Hartree-Fock.

COURSES TAUGHT:

Undergraduate	Graduate
Quantum Mechanics	Advanced Quantum Mechanics
Electromagnetic Theory	
Classical Mechanics	
Statistical Mechanics	
Thermodynamics	

PUBLICATIONS:

- 1-** Configuration-interaction calculations on the $3s^23p^n$ configuration of neutral phosphorus and two of its ions. Adnan Y. Hussein, Phys. Rev. A, **105**, 012809 (2022).
- 2-** CI calculations for ground and the lowest core-excited states of Li and Li^- . Adnan Y. Hussein, Physica B: Condensed Matter, **570**, 66 (2019).
- 3-** Excited state electron affinity calculations for aluminum. Adnan Y. Hussein, Ind. J. Phys., **92**, 436 (2017).
- 4-** Fine structure intervals $^2P_{3/2}^o - ^2P_{1/2}^o$, $^2P_{3/2} - ^2P_{1/2}$ and electric dipole transition rate $^2P_{3/2} - ^2P_{1/2}^o$ in phosphorus isoelectronic sequence $15 \leq Z \leq 50$ and phosphorus ions, Adnan Y. Hussein, Journal of Babylon University, **25**, 1767 (2017).
- 5-** CI calculations of the ground state ionization potential and electron affinity of Aluminum. Adnan. Y. Hussein, Acta. Phys. Pol. A 128, 268 (2015).
- 6-** Core-polarization effect on ionization potential and electron affinity of aluminum. Adnan. Y. Hussein, Journal of the College of Education, **2**, 625 (2015).
- 7-** Hyperfine structure in aluminum isotopes, Adnan. Y. Hussein, Journal of the College of Education **2**, 126 (2011).
- 8-** Breit interaction and radiative QED corrections in carbon isoelectronic sequence and in the atoms $1 \leq Z \leq 104$, A. Yousif Hussein, Engineering and Technology Journal, **28**, 7004 (2010).
- 9-** Electric dipole E1 transitions in neutral carbon atom, Adnan Y. Hussein, Journal of the College of Education **3**, 141 (2009).
- 10-** Breit interaction effect in atoms. Adnan Y. Hussein, Journal of the College of Education, **1**, 785 (2009).
- 11-2-** Core-polarization effect in elastic electron scattering from ^{29}Si , R. A. Radhi, Adnan Y. Hussein and K. Al-Bayati, Journal of the College of Education, **3**, 297 (1999).
- 12-** Backfire antenna with multiple flat reflectors and rectangular aperture as feed element, R. Al Rashed and Adnan Y. Hussein, Journal of Islamic Academy of Sciences, **4**, 175 (1995).