# الآيسة

قال تعالى: (( وَاللَّهُ أَخْرَجَكُمْ مِنْ بُطُونِ أُمَّهَا تِكُمْ لَا تَعْلَمُونَ شَيْئًا وَجَعَلَ لَكُمُ قَالَ اللهُ أَخْرَجَكُمْ مِنْ بُطُونِ أُمَّهَا تِكُمْ لَا تَعْلَمُونَ شَيْئًا وَجَعَلَ لَكُمُ اللهُ الللهُ اللهُ الل

صدق الله العظيم سورة النحل

## **Dedication**

Dedicate to spirit of my pure mother

## Acknowledgment

First I would like to thank without end to our greater Allah, Then I would like to express about my appreciation and thanks to our Supervisor: Dr. Rawia Abdelgani Elobaid and thanks for everyone help us...

#### **Abstract**

In this research was calculated the mass difference and the nuclear binding energy of alpha particles (the nucleus of the helium atom) which is made of two protons and two neutrons, and found that the binding energy increases by increasing the mass difference and the number of alpha particles.

#### المستخلص

في هذا البحث تم حساب فرق الكتلة وطاقة الربط النووي لجسيمات الفا وهي نواة ذرة الهيليوم التي تتكون من بروتونين ونيترونين، ووجد أن طاقة الربط النووي تزيد بزيادة الفرق في الكتلة وزيادة عدد جسيمات الفا.

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