

Answer on Question #43881-Physics-Other

Does proton attract neutron inside the nucleus of an atom due to induction?

Answer

Yes. An article published in 2007 featuring a model-independent analysis concluded that the neutron has a negatively charged exterior, a positively charged middle, and a negative core. (Miller, G.A. (2007). "Charge Densities of the Neutron and Proton")

In a simplified classical view, the negative "skin" of the neutron assists it to be attracted to the protons with which it interacts in the nucleus. However, the main attraction between neutrons and protons is via the nuclear force, which does not involve charge.