

Atom tuzilishi

Maqsad: Atommodellari bilan
tanishish

1896 yilda, fransuz fizigi Anri Bekkeril radioaktivlikni ochdi: ba'zi bir element atomlarining o'z-o'zidan energiya nurlantirish qobiliyati.

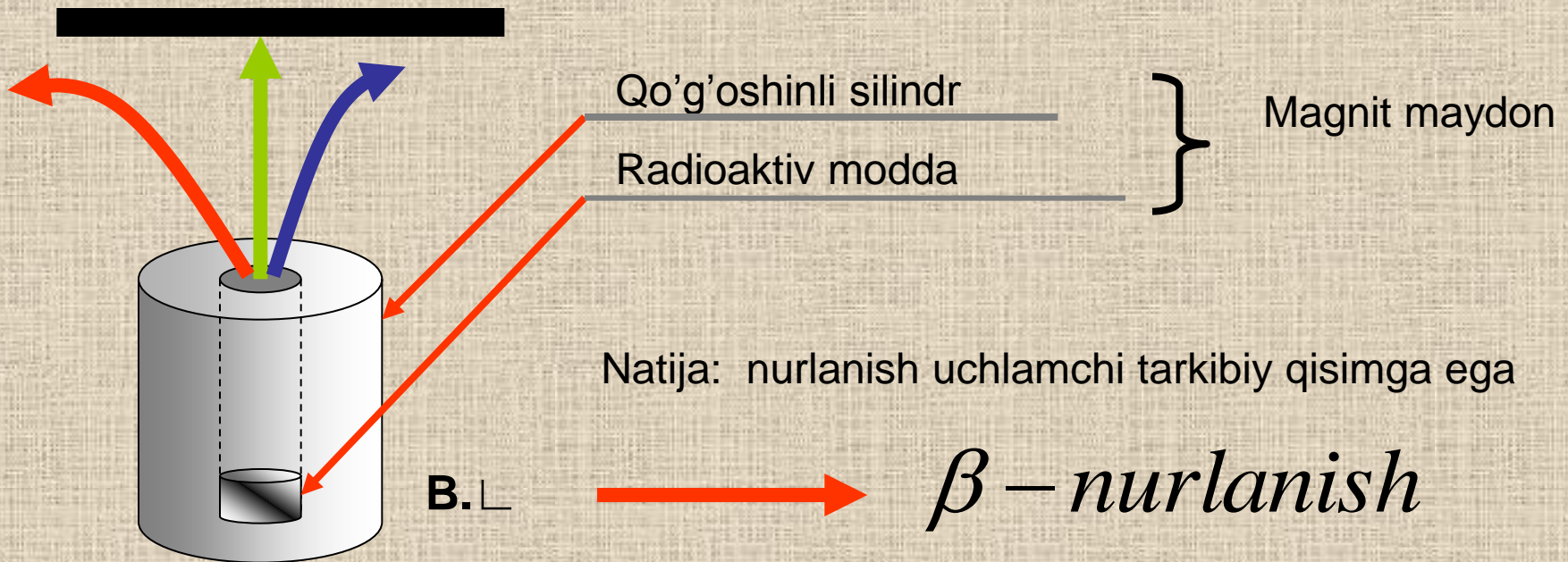
Misol: Elementlar davriy jadvalida poloniydan boshlab hamma elementlar ?

Nurlanish tarkibi?

Tajriba

Maqsad: **padioaktiv nurlanish tarkibini aniqlash**

Lyumenesent to'siq(ekran)



Natija: nurlanish uchlamchi tarkibiy qisimga ega

B.L



β - nurlanish

M.L



α - nurlanish

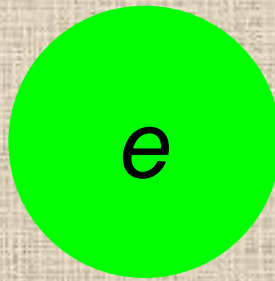


γ - nurlanish

Xulosa: **atom murakkab tuzilishga ega**

β – nurlanish

B.L



Harakatchan elektronlar
(eng kichik manfiy zaryad)

α – nurlanish

M.L



Geliy atomi yadrosi
(musbat zaryadlangan
zarracha)

γ – nurlanish

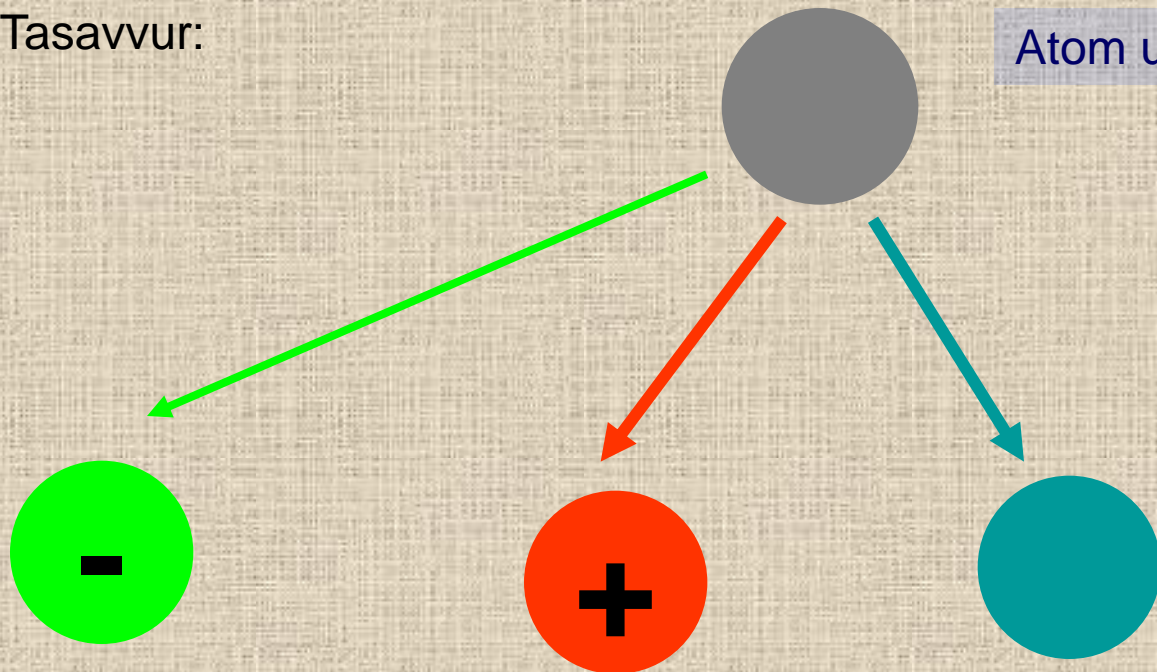
**Elektromagnit
nurlanish**

(zaryadi yo'q)

Atom nimadan tashkil topgan?

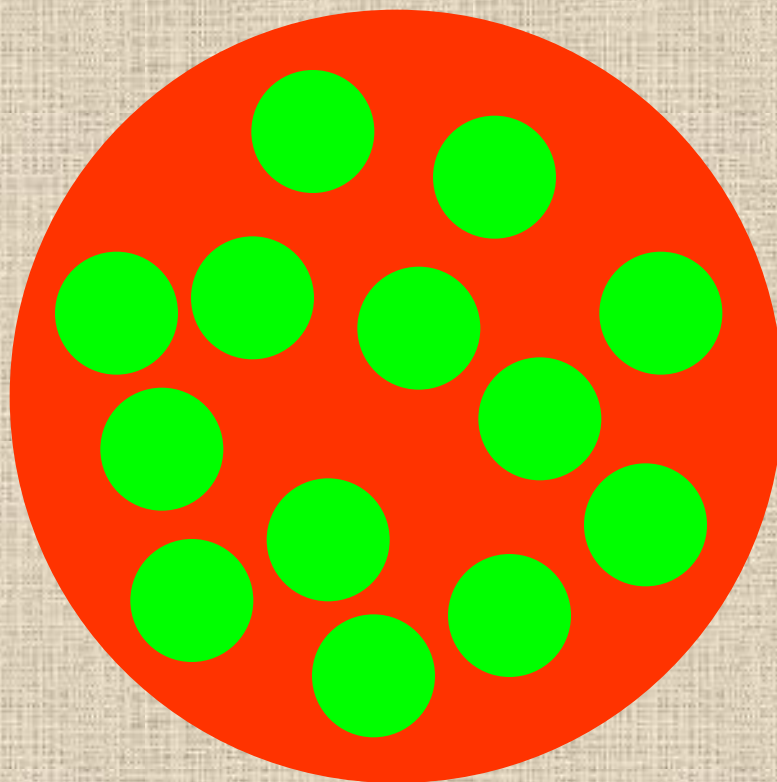
Tasavvur:

Atom umuman neytral zarracha



J. J. Tomson (ingliz olimi)

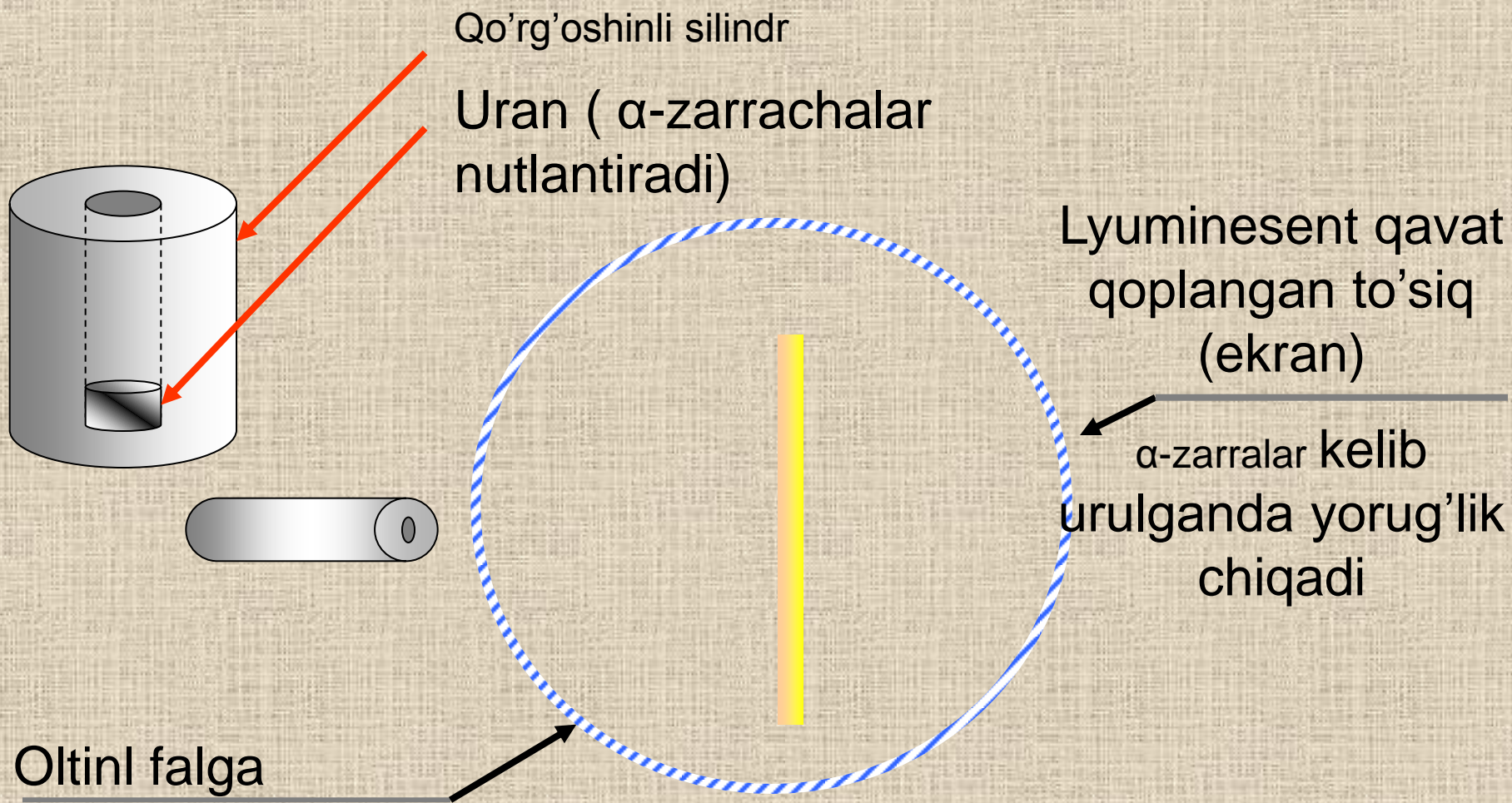
Atom – shar bo'lib, ichida elektronlar mavjud, unung umumiy hajmi bo'yicha musbat zaryad tarqalgan

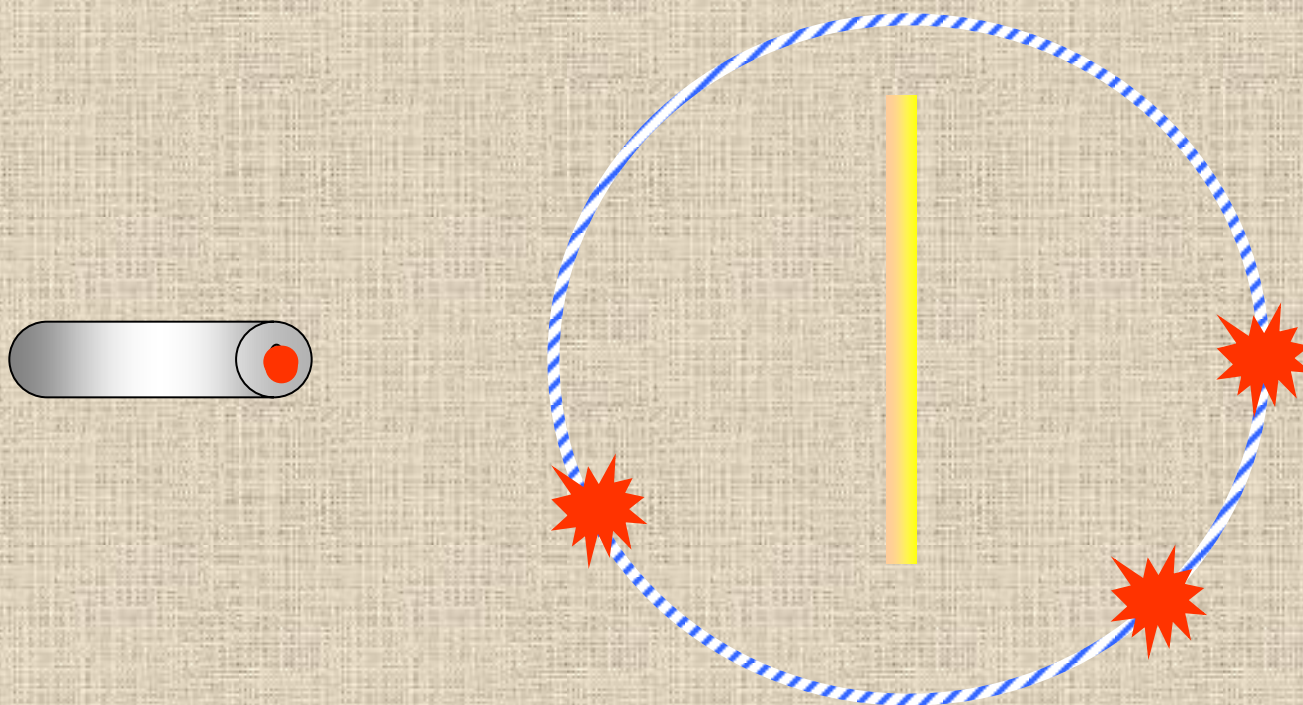


1911 yil, Ernest Rezerford (ingliz fizigi)

Tajriba

Maqsad: **atomning tarkibini aniqlash**

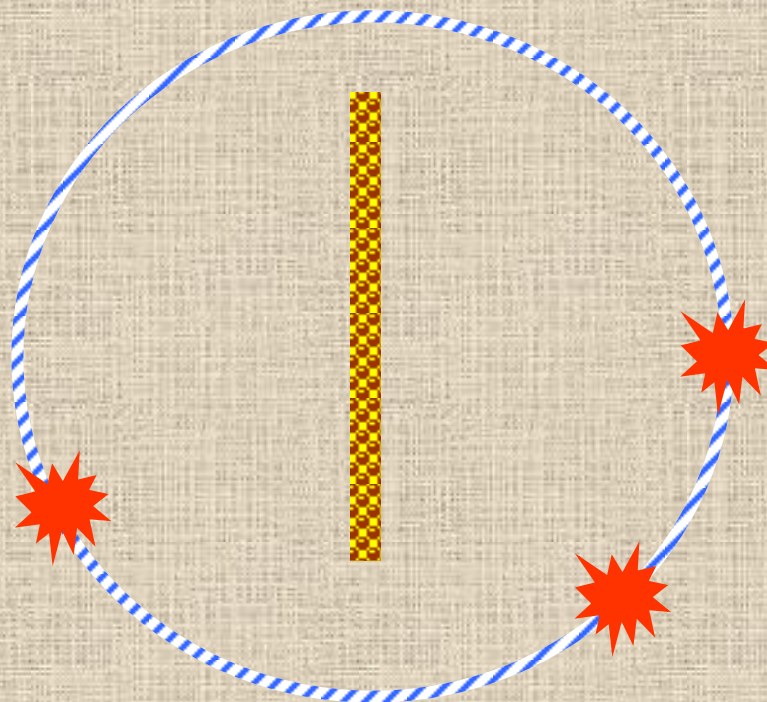




Natija:

1. *Ko'pchilik* α -zarrachalar qayrilmasdan falgadan o'tib ketadi.
2. ba'zi α -zarrachalar kichik burchakga egiladi.
3. Kattaroq burchakga egiladigan α -zarrachalar bor

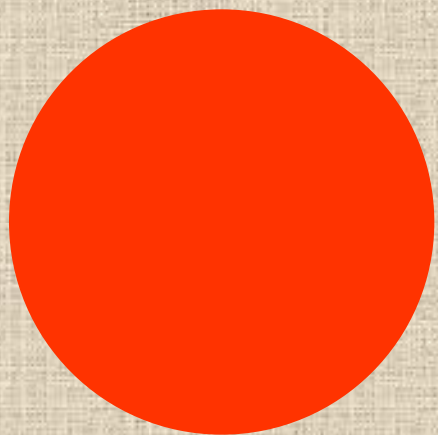
90°



Natija:

1. *Ko'pchilik* α -zarrachalar egilmasdan falgadan o'tib ketadi.
2. Ba'zi α -zarrachalar kichik burchakga egiladi.
3. Kattaroq burchakga egilgan α -zarrachalar bor

90°



Musbat, og'ir
 α -zarracha

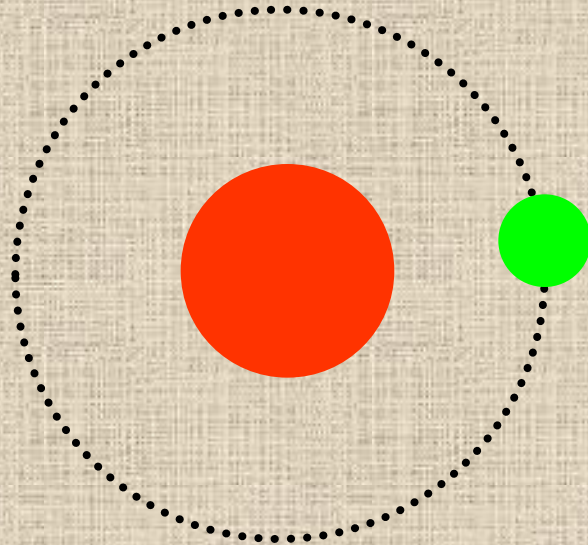
Nima bilan to'qnashdi, kattaroq
burchakka egilish uchun

90^0



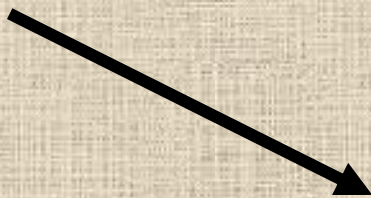
Xulosa:

- Atomning hamma massasi markazda jamlangan – **musbat yadroda**
- Yadro atrofida **manfiy zaryadlangan elektronlar** harakatda bo'ladi



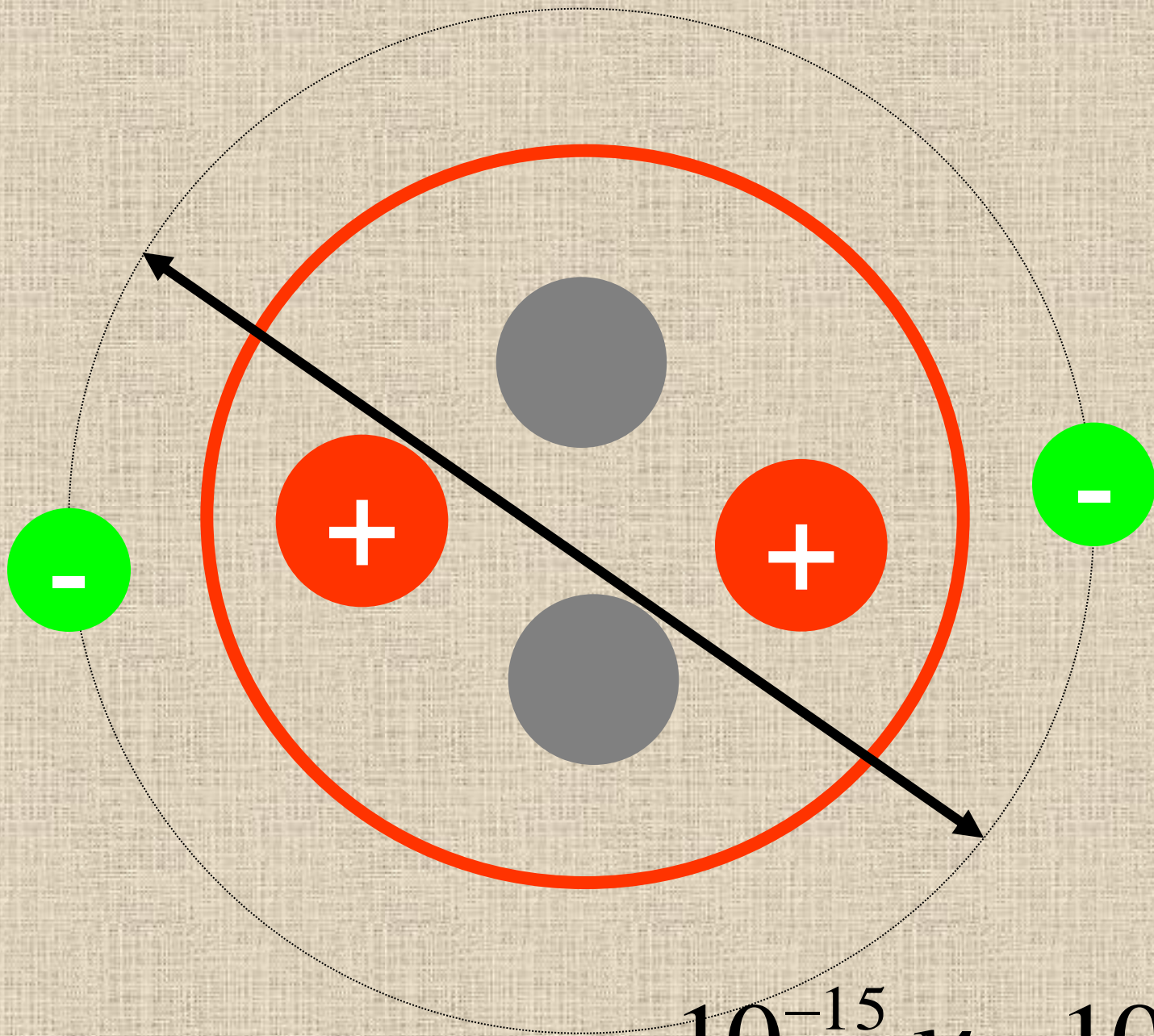


protonlar



neytronlar



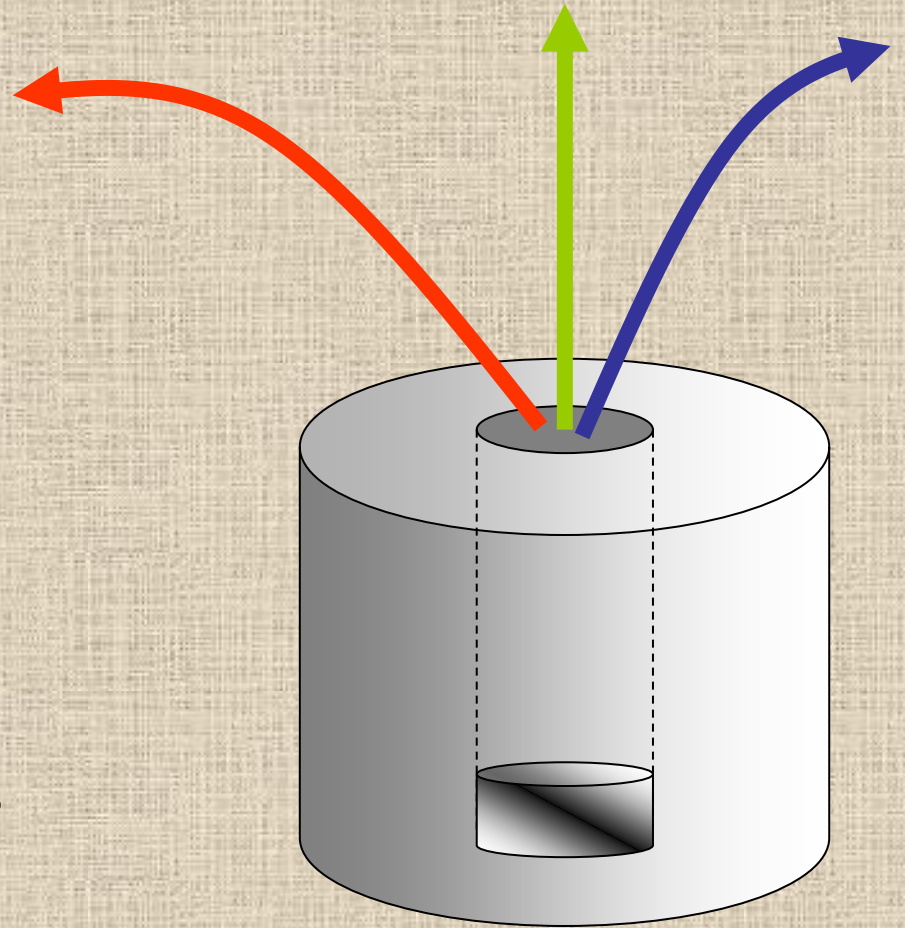


Yadro diametri -

$$10^{-15} \mathcal{M} - 10^{-16} \mathcal{M}$$

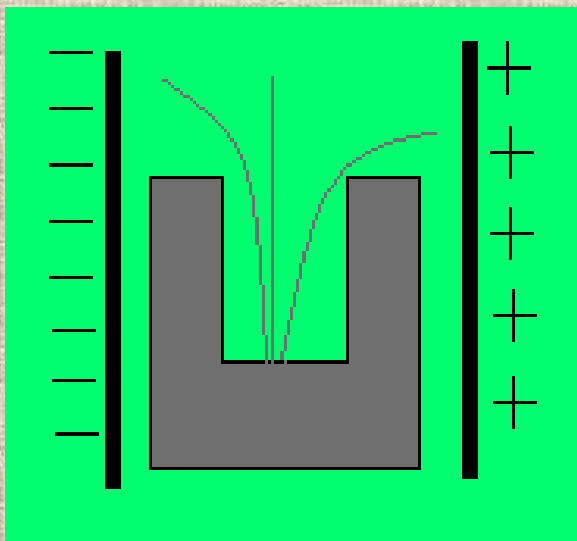
Mustahkamlash

Rasmda magnit maydonida radioaktiv moddaning nurlanishi tadqiqot qilingan.

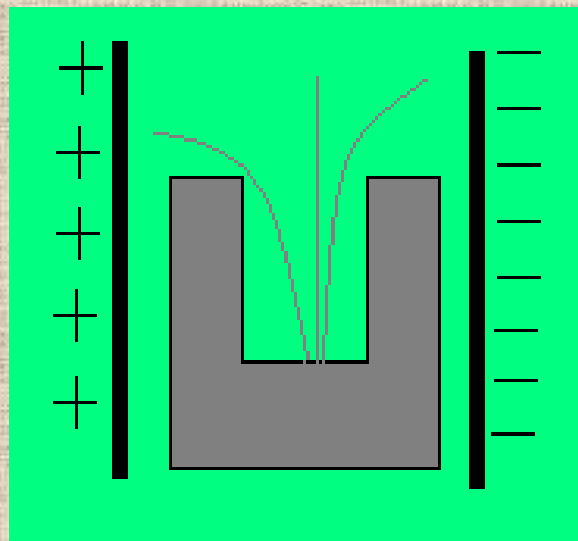


- **Qanday nurlar kichik burchaklarga egiladi?**
- **Qanday nurlar katta burchaklarga egiladi?**
- **Qanday nurlar egiladi?**

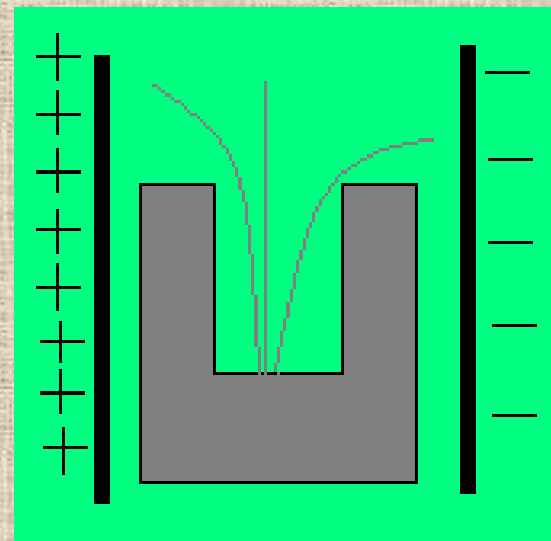
Al'fa va beta – nurlar zaryadi belgilarini aniqlash uchun rasmda ko'rsatilgandek, elektr maydondan foydalanish mumkin.
Bu yerda nurlarning egilishi noto'g'ri ko'rsatilgan?



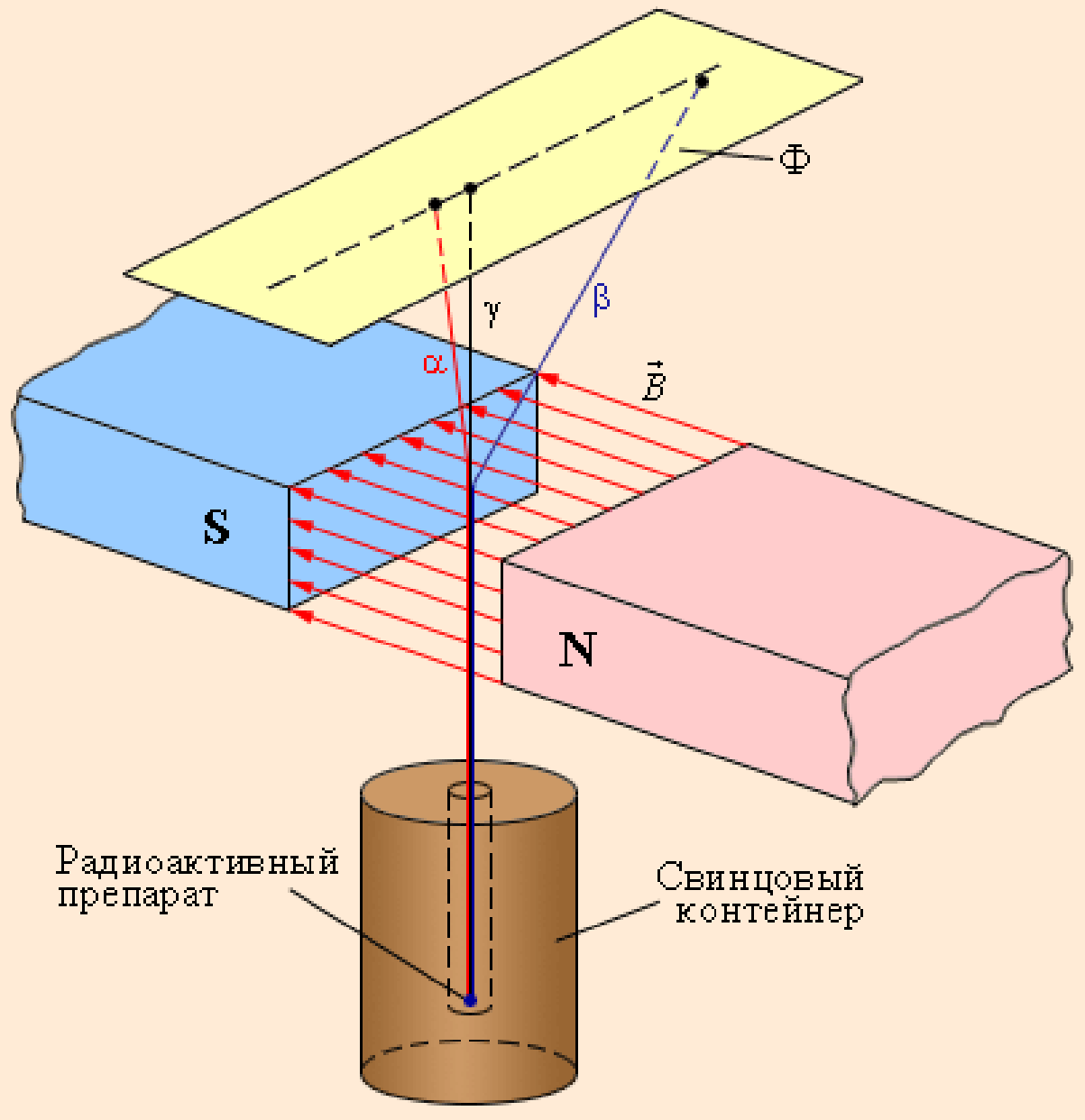
1- rasm

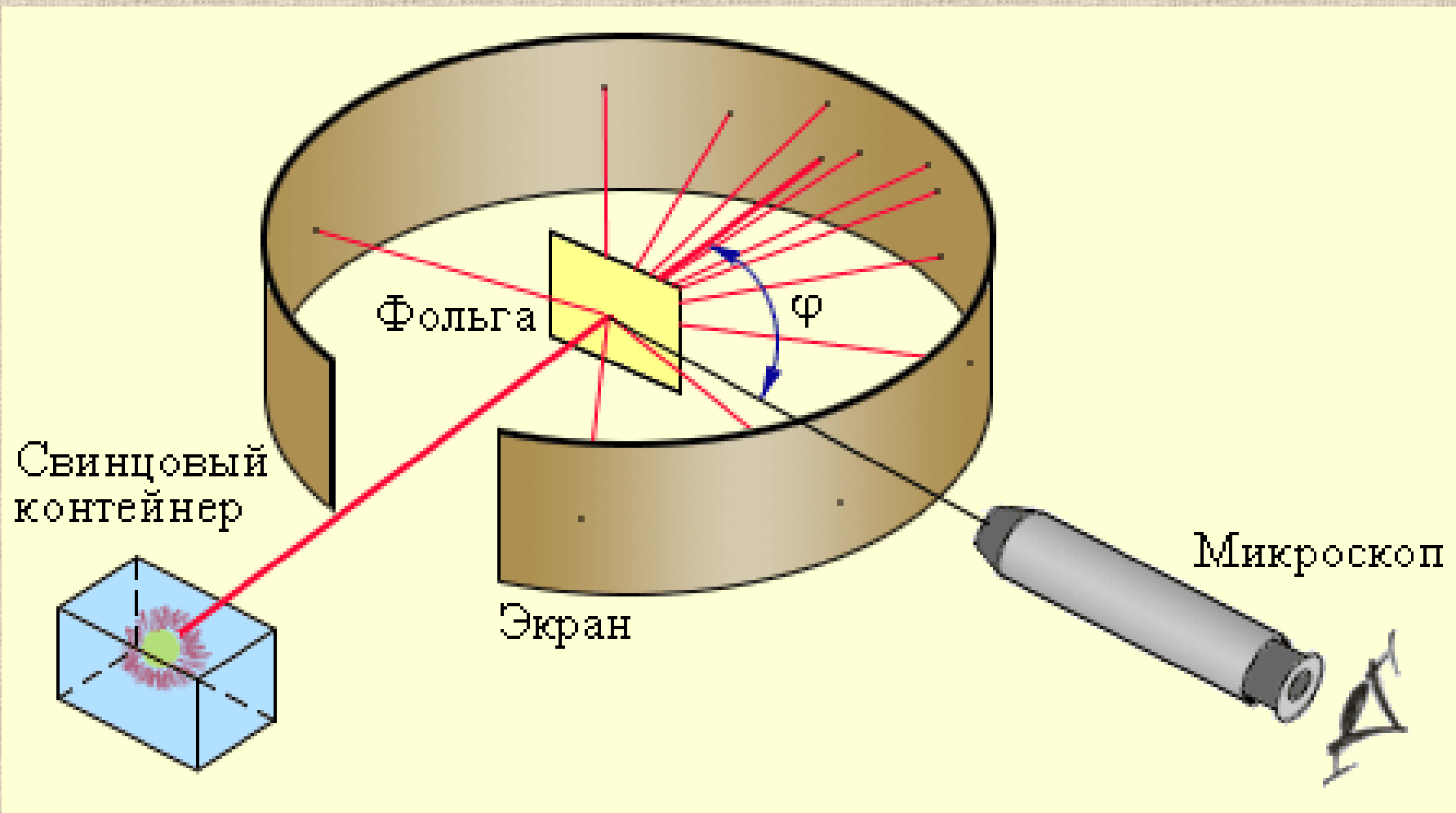


2 - rasm

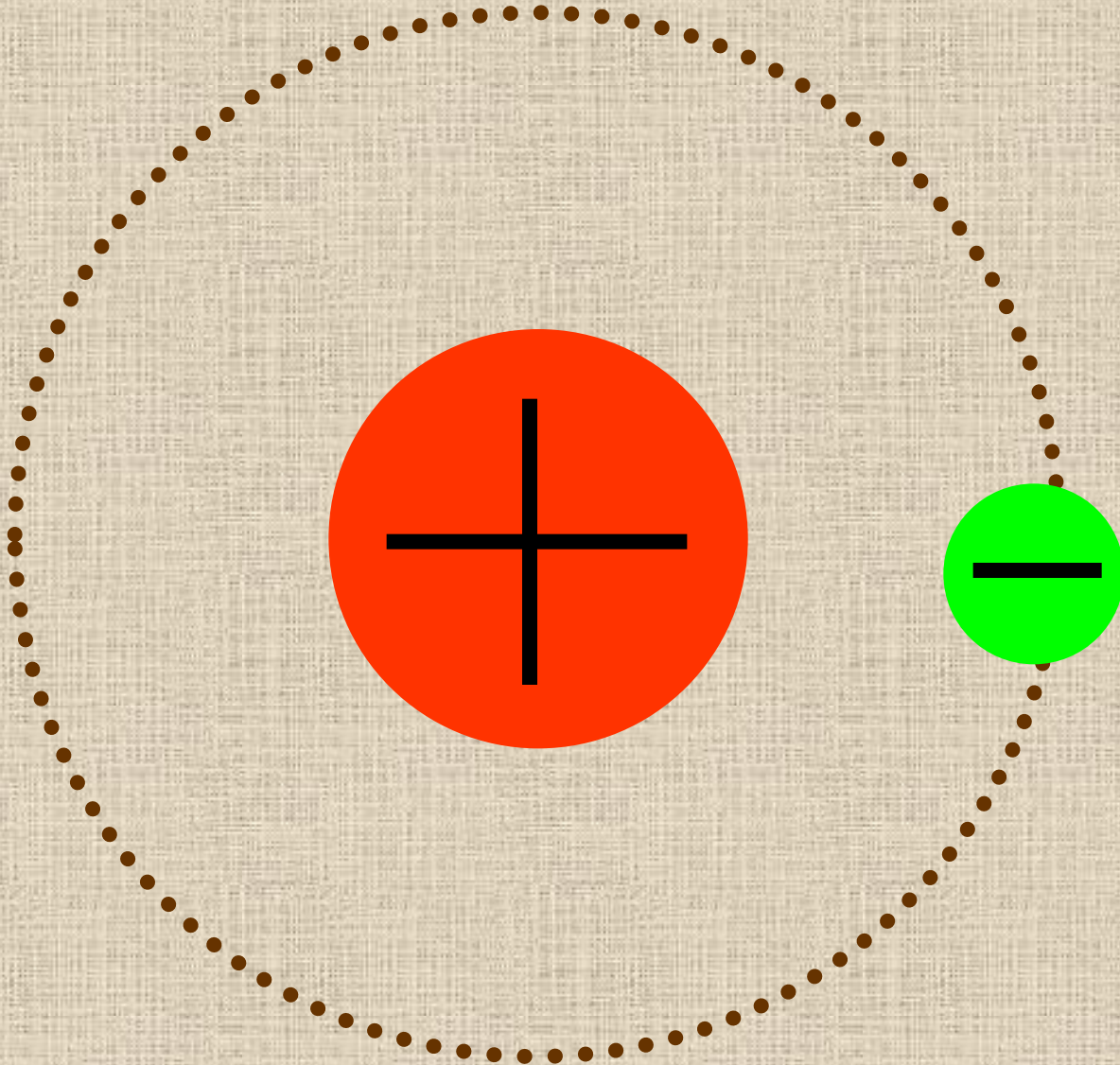


3 - rasm





Xulosa:





protonlar



neytronlar



