Particle

Sunday, September 13, 2020 10:21 AM

Particle	Name	Type	Mass(AMU)	Charge		Position	Energy(eV)	Direction	Dead
Arp	'Ar+'	Ion	40	+1		(0,0)	100	(-sin(α), cos(α))	0
O	'O'	Radical	16	0		var	var	var	var
E	'E'	Electron		-1		var	var	var	var

The Particle position is a computed to as the particle advances

Position_2 = position_1 + speed * direction * dt

Step = Speed * dt is fixed regardless of speed

The direction is a unit vector

The speed is not used. Instead the energy is used for reflection and reaction.

When reflection occurs, the direction and energy are updated

'Dead' is a tag to indicate whether the particle is alive or not

Dead = 0, continue to track the particle

Dead = 1, stop tracking the particle

Once a particle is created, the memory of the particle is a created and I will never be erased.

Two method:

1. Only a single particle memory is created, A new particle will use the same memory with updating all the constants and the variables
2. Since there are only a limit number of kinds of particles, multiple particle memories are created with updating only the variables