

# Species

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## Introduction

A species is defined with the following fields:

```
struct Species
  name      # name of the particle to track
  charge    # charge of the particle
  mass      # mass of the particle
  spin      # spin of the particle
  moment    # magnetic moment of the particle
  iso       # mass number of atomic isotope
  populated
end;
```

The fields are stored with a set of units. If the fields are directly accessed, it will return a unitful value. For example:

```
julia> Species("electron").mass
0.51099895069 MeV c^-2
```

The default units are:

- `mass`: MeV/c<sup>2</sup>
- `charge`: elementary charge
- `spin`:  $\hbar$
- `moment`: J/T

We recommended using our getter functions `massof()` and `chargeof()` to obtain values in units you prefer. See [this page](#) for more information.

## Construct a Species

How constructors works

## Particle Functions

mass of, charge of etc.

## List of Available subatomic species