Xsection treatment

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- Consider a medium consisting of $n-$elements. E.g, PWO: Pb + W + 4O. $n = 3$.
- The $i-$th element is denoted by the suffix. An example is shown for PWO.

  A_i : Mass number of $i-$th element. element(i).A. For i=1,3, the value is (207.2, 183.92, 16). The component is denoted by using ".", though formal notation should use "%', like element(i)%A.

  Z_i : charge of the $i-$th element. element(i).Z) (82,74,8)

  N_i : number of $i-$th element. If we follow the notation above, this should be element(i).No. But we use No(i) like media%No(i). (1,1,4) . This is however, normalize to (1/6, 1/6, 2/3). The original number is kept as .OrigNo(:)

  σ_i : cross-section of the $i-$th element, at a given energy and for a given projectile. So this changes for each collision. For the PWO case, σ_1 is the cross-section of Pb, σ_2 of W, σ_3 of O (not of 4O). These are not kept as variables.

  nsigma(i) $No(i)\sigma_i$. These are used to sample the target among elements in a medium.

  media.xs $\sum$nsigma(:). This is used to sample the MFP of the hadronic collision in the medium.