knockout.f estimates the partial cross sections for stripping and diffractive removal of a nucleon from a projectile nucleus. The required inputs are the core and valence particle masses, the radial wave function of the bound nucleon (file bd.xxx from bound) and the filemames that contain the eikonal S-matrices for the scattering of the core and valence particle with the target nucleus.

The program can also calculate (if required, answer 'y' to: output S-matrix ?) the elastic S-matrix of the composite projectile with the target S(b)=<phi|Sc(bc)Sv(bv)|phi>. This can then be used with the program glauber.f to calculate the elastic scattering differential cross for the projectile in the presence of breakup effects.

Input is:

```
%---------------------------------------------------------------------
output S-matrix ?
  answer y or n (if y, then must then give S-matrix filename for output)
wave function filename ?
core S-matrix filename ?
valence S-matrix filename ?
%---------------------------------------------------------------------
```