# Problem 4: Chemistry on surface

## Core of part1

$$\text{process: gas} \rightarrow \text{dust}$$

## Recap for part1

- $O + O \rightarrow O_2$
- $O \rightarrow O_{\text{dust}}$
- rate based on loop on dust bins
- $k_{\text{ads},j} = v_j \sum_i x_{d,i} \pi a_i^2 S(T_{\text{gas}}, T_{\text{dust},i})$
- `2,O,O_dust,fA(m(idx_O),Tgas)`

# KROME Bootcamp 2014 - Writing the function

## Good to know

- run ./krome -n your_network ...
- krome_user_commons never replaced by KROME

## Put this function in **krome_user_commons**

```
function fA(mass,Tgas)
 use krome_commons
 use krome_constants
 rate = 0
 vx = compute thermal speed using the mass variable
 LOOP on dust bins
  stick = equation for stick using krome_dust_T array
  rate = rate &
    + expression of krome_dust_asize2 and xdust arrays
 END LOOP
end function
```

GOOD WORK!