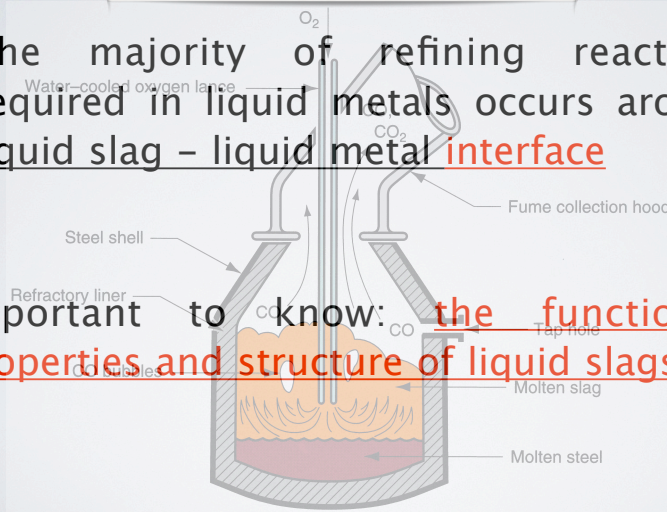


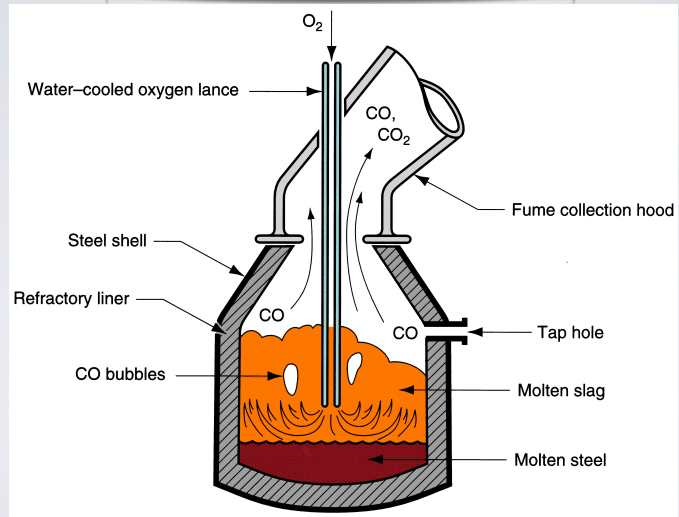
Slags

The majority of refining reactions required in liquid metals occurs around liquid slag - liquid metal interface

Important to know: the functions, properties and structure of liquid slags



Slag



Functions of slag

- protection of the melt from contamination
- insulation of the melt
- accepting unwanted liquid and solid components
- controlling the supply of refining media to the melt through addition to the slag

Properties of slag

- lower melting point than melt
- lower specific gravity than and immiscible in the melt
- correct composition in order to accept and react with impurities

What is slag?

solution of mixed oxides, silicates, sometimes with aluminates, phosphates or borates

→ slag forming reactions are **endothermic**

→ 2 types of slag oxides: **basic** and **acidic**

CaO , FeO , MgO ,
 Cu_2O , Na_2O , K_2O

SiO_2 , P_2O_5 , Al_2O_3

Properties of slag

- slag's basicity
- electrical and thermal conductivities
- Viscosity of slags: ~ composition and temperature