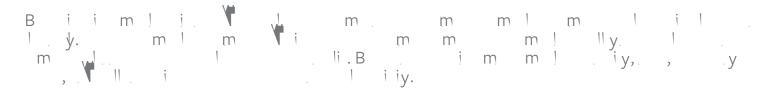


# The Basics of Metallurgy



### What is a metal?



## Materials are often classi ed in these three classi cations:

### **Pure metal or alloyed combinations of metallic elements**

- (1) D il
- (2)
- (3) El i ly mly i

### Polymers-plastics and rubber that are compounds of carbon, hydrogen and selected other elements

- (1) F!..i |
- (2) L
- (3) L
- (4) El i li l

## **Ceramics-compounds between metallic and nonmetallic elements**

- (1) B i
- (2) H
- i.



## What is metallurgy?



## Types of metallurgical testing continued:

### **Tensile testing**

- m

## **Fatigue testing**

(1) F i - j ... .. j l li m . l