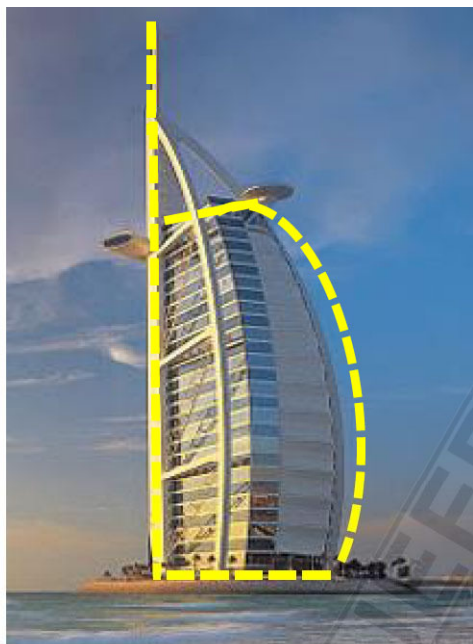


ERBIUM - Er**68**

Atomic Number

**BURJ AL ARAB****COBRA TOWER****ERBIUM = Arab Country**

CLUE: The name 'Erbium' sounds similar to the word 'Arab' which is a country. This picture shows two famous buildings 'Burj Al Arab' and 'Cobra Tower' built in Dubai (U.A.E.) which is an Arab country. The building 'Burj Al Arab' is making outline of number 6 whereas Cobra Tower is making outline of number 8. This picture shows that atomic number of element erbium is 68.

Facts about Erbium

Erbium is obtained from gadolinite mineral from which terbium metal is obtained. It is taken from ytterby mines in sweden. It is a soft, silvery white metal that can be easily cut with knife.

Type of Element : Inner-transition Metal

Atomic Number : 68

Electronic : 2, 8, 18, 30, 8, 2 or

Configuration $1s^2, 2s^2 2p^6, 3s^2 3p^6 3d^{10}, 4s^2 4p^6 4d^{10}, 5s^2 5p^6, 4f^{12} 6s^2$ or
 $[\text{Xe}] 4f^{12} 6s^2$

Atomic Mass : 167.26 g/mol

Group, block : Not Applicable, f-block

Period : 6

Oxidation States : +3

Isotopes : 6 (${}_{68}\text{Er}^{162}$, ${}_{68}\text{Er}^{164}$, ${}_{68}\text{Er}^{166}$, ${}_{68}\text{Er}^{167}$, ${}_{68}\text{Er}^{168}$ and ${}_{68}\text{Er}^{170}$)

Discovered by : Swedish chemist Carl Gustaf Mosander in 1843



Pink Glass Vase

Uses of Erbium:

1. Some isotopes of erbium have tendency to absorb neutrons and are used in nuclear reactor control rods.
2. Oxides of erbium are used to impart pink colour to glass and glazes.
3. Erbium is also alloyed in vanadium to make it soft and workable.

Multiple Choice Question

Question 68: The atomic number of erbium is;

- | | |
|-------|-------|
| a) 68 | b) 64 |
| c) 57 | d) 71 |