Task#85638

How many grams of sodium iodide, NaI , must be used to produce 12.6 g of iodine, I2 ?

Solution: The red-ox reaction involved for oxidation of I to I_2 is given by

$$2\Gamma = I_2 + 2e$$

 $2NaI = 2Na^+ + I_2 + 2e$
Amount: 2mol 1mol
Amount: (2×149.90)g (253.8)g
? 12.6g
The amount of NaI required $=\frac{2\times 149.9 \times 12.6}{2\times 126.9} = 14.88g$

Where,

Molecular weight of Nal= 23+126.9=149.9g/mol Molecular weight of $I_2 = 2 \times 126.9 = 253.8g/mol$

Answer provided by www.AssignmentExpert.com