Metóda Clil v predmete chémia

Ročník: sekunda

Téma: Chemické zlučovanie

Tematicky celok: Spoznávame chemické reakcie v našom okolí

Work sheet

**Lesson: Chemical synthesis of iron and sulfur**

*Few question for begining?*

What is iron?

What is sulfur?

What´s mean synthesis?

What is product of this reaction?

**Iron**

 is a [chemical element](https://en.wikipedia.org/wiki/Chemical_element" \o "Chemical element) with symbol **Fe.** It is a [metal](https://en.wikipedia.org/wiki/Metal) and  it is the fourth most common [element in the Earth's crust](https://en.wikipedia.org/wiki/Abundance_of_elements_in_Earth%27s_crust).  It is a heavy malleable ductile magnetic silver-white metallic element. Iron powder is grey. ..............

**Sulfur**

is a chemical element with symbol **S**. It is a non-metal and a bright yellow crystalline solid which  is insoluble in water. Sulphur burns in air with a bright blue flame to produces sulfur dioxide which is toxic and use to desinfection against bacteria or fungi.

What we will need?

* Test tube
* Burner
* Chemical spoon
* Porcelain bowl
* Test tube holder
* Magnet
* Petri dish
* sulfur powder
* iron powder

Instructions

1. 2 grams of sulfur powder mix with 3,5 grams of iron
2. Spatula the iron/sulfur mixture into a test tube
3. Heat it with flame of burner
4. The iron and Sulfur are now reacting together.
5. The orange glow is indicated that this is an exotermic reaction ( energy released to the surroundings
6. The black solid product is iron sulfide.

Whatch the experiment and fill up the table.

|  |  |  |  |
| --- | --- | --- | --- |
|  | color | visual appearance | Magnetic properties yes/no |
| sulfur |  |  |  |
| iron |  |  |  |
| mixture |  |  |  |
| Mixture after heating |  |  |  |

*Chemical synthesis is a reaction in which two or more simple reactants join together into a one dificult product.*

*(The production of chemical compounds by reaction from simpler materials)*

R1 + R2 P

Iron + sulfur Iron sulfide

Questions

What is an iron?

What is a sulfur?

What´s mean synthesis?

What is product of this reaction?

**Copy the blue table page 27.**