

MAGNETIC WATER TREATMENT

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INVENTION SUMMARY

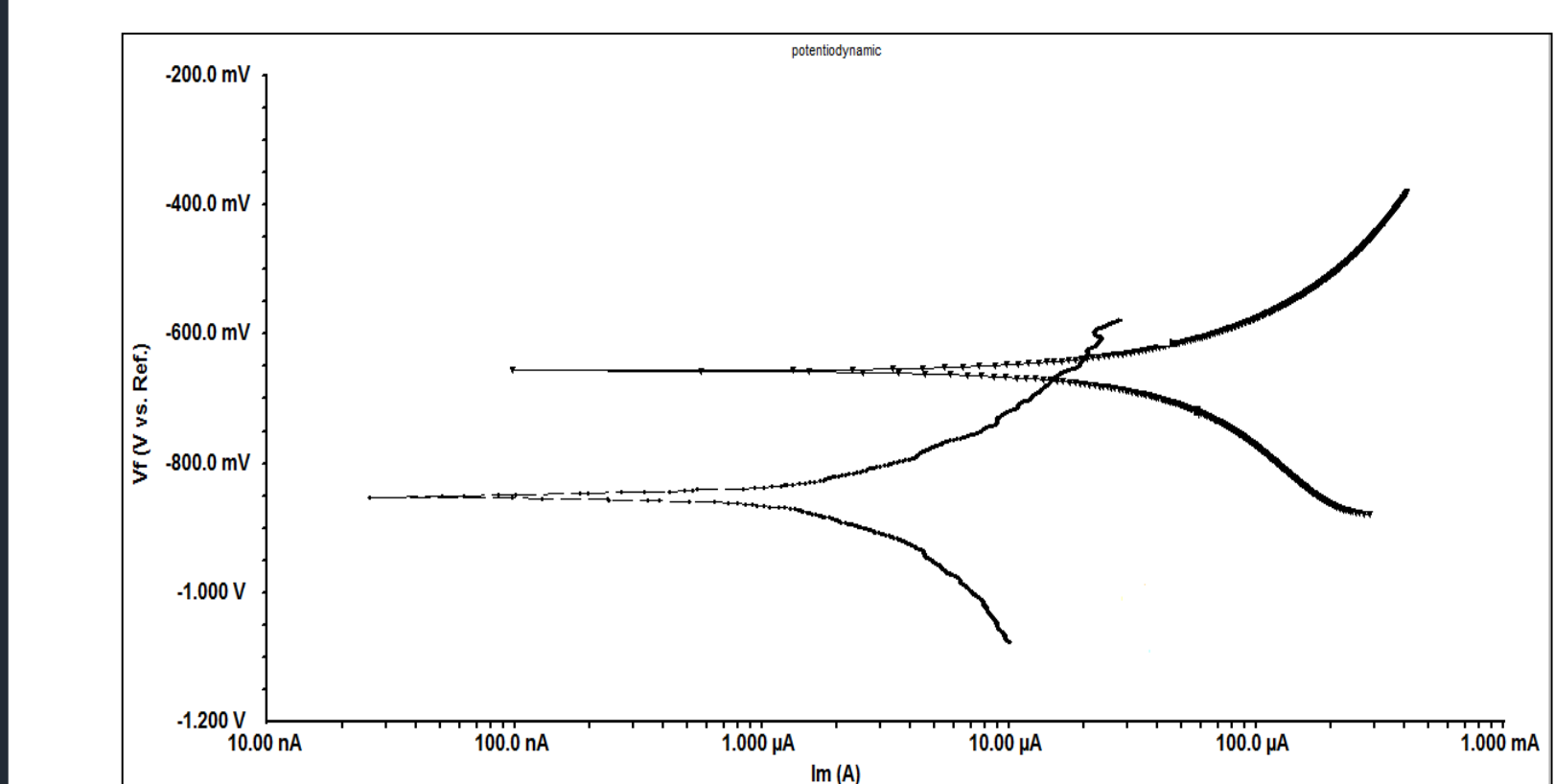
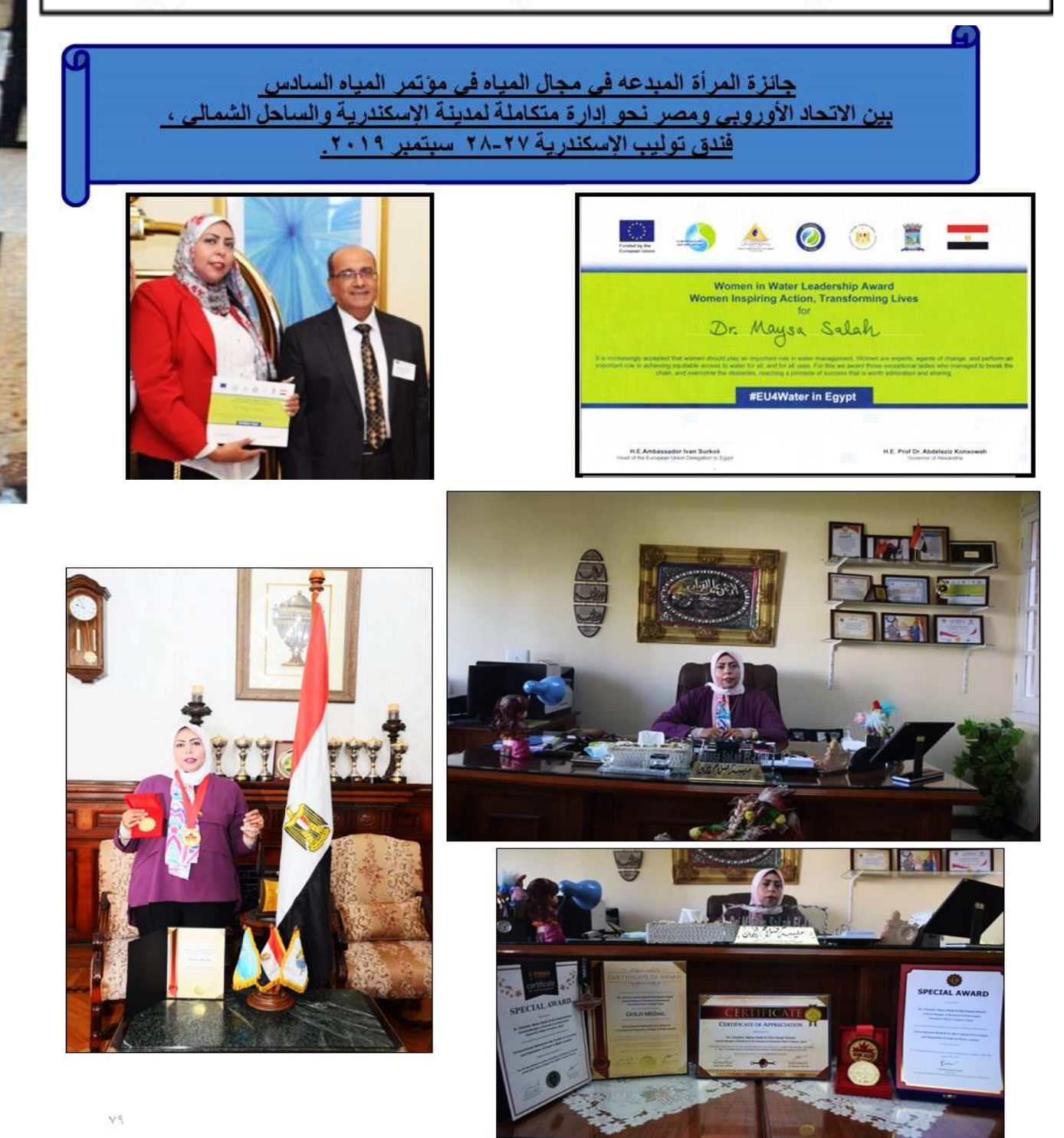
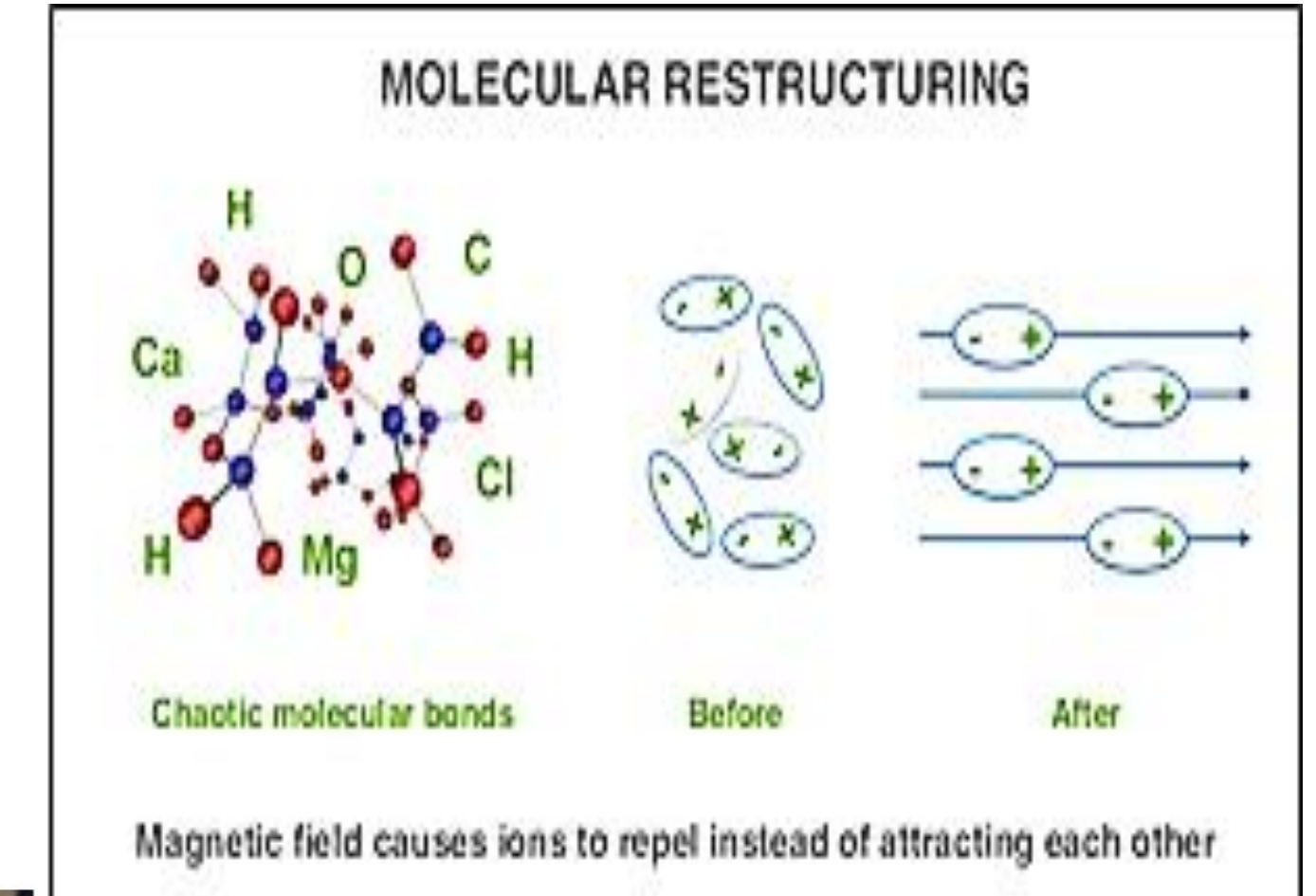
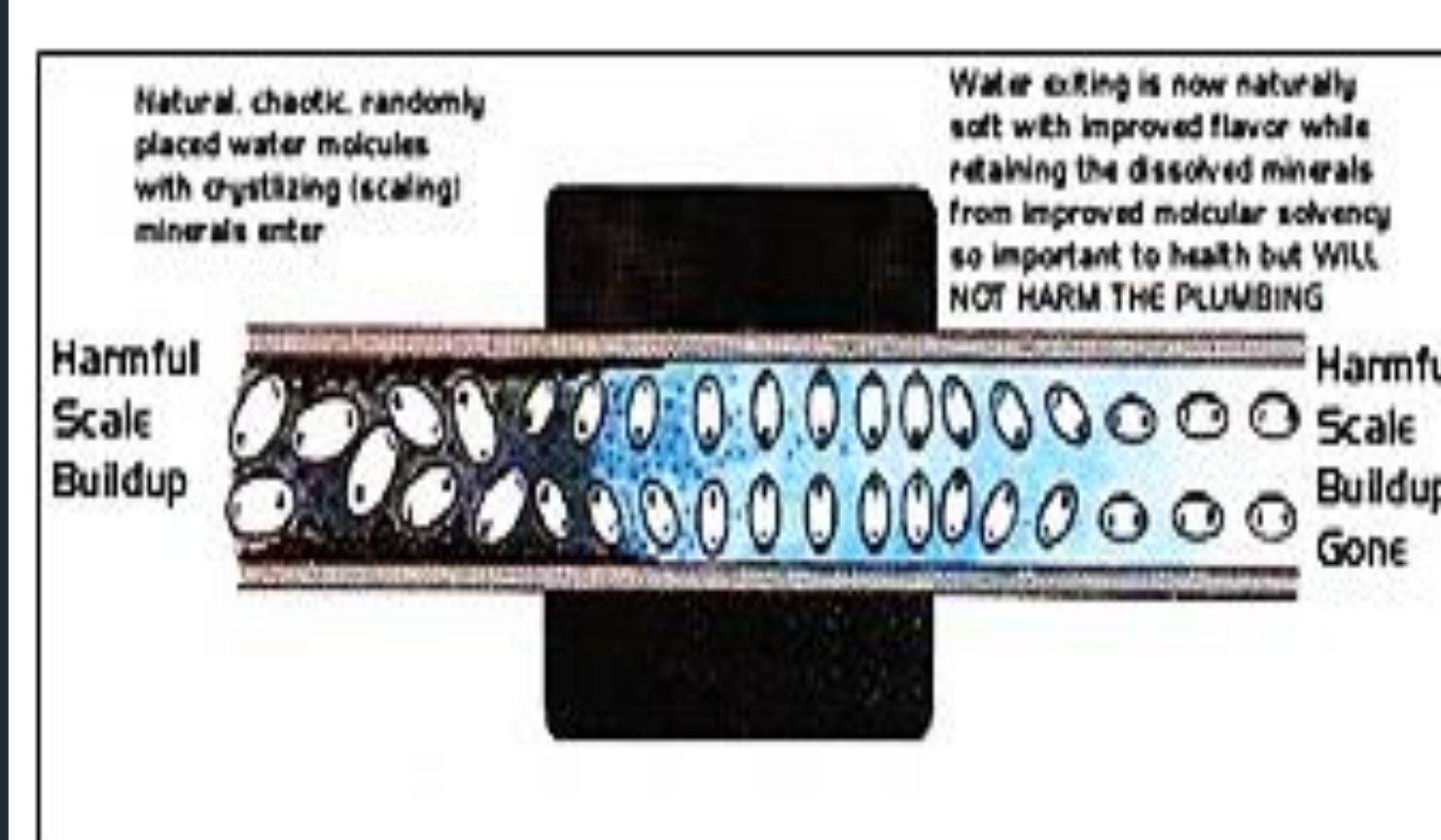
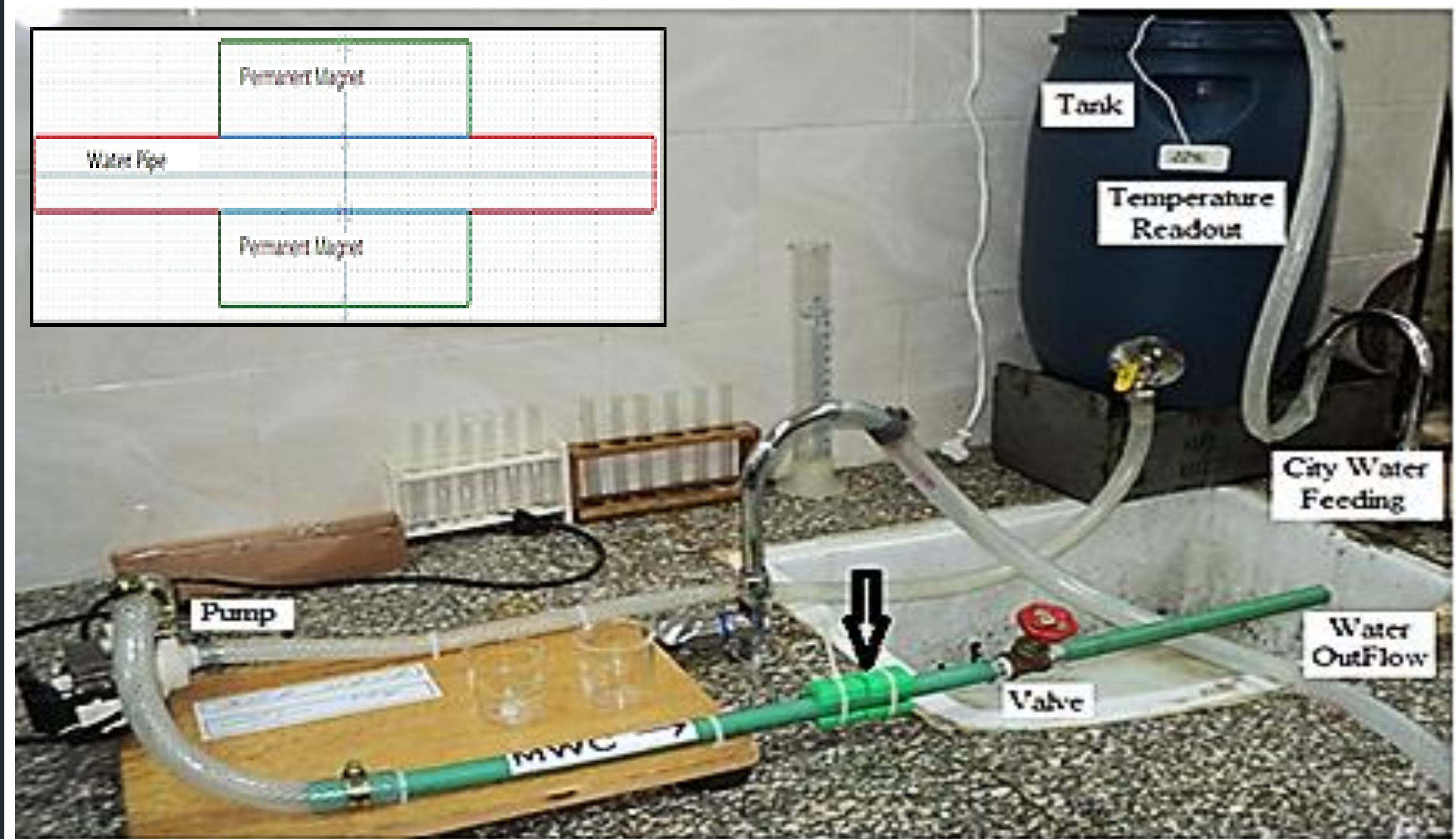
This review article outlines an overview of new trends and modern approaches for practical implementation of magnetic water treatment to eliminate scaling salts (carbonate, chloride and sulfate salts of Ca^{2+} , Mg^{2+} , Fe^{2+} and Fe^{3+} cations) in power heat-exchanger devices and pipe lines. The principles of physical effects of the magnetic field on H_2O molecules as well as the parameters of physico-chemical processes occurring in water and the behavior of the dissolved in water scaling salts subjected to the magnetic treatment are discussed. It is demonstrated that the effect of the magnetic field on water is a complex multifactorial phenomenon resulted in changes of the structure of hydrated ions as well as the physico-chemical properties. In our project we discuss the key impact of magnetic water on energy, electricity consumption, agriculture, natural plant growth, medical treatment, fish farms and environment, as well as the impact of magnetic field on conventional methods for water treatment and desalination process.

The main idea of the magnetic treatment of water is to pass water through a strong magnetic field, the calcium carbonate crystals are altered so that they lose their abilities and they can no longer cause scales and corrosion. This type of process does not use filters or chemicals but uses the power of the magnetic field modifying the characteristics of the water in order to make it more suitable for our use.

These magnetic “filters” have many qualities: they do not require rejecting some of the water that needs to be treated so do not waste water. Indeed, the magnetic treatment only modifies the molecules of calcium, so that they do not favor the formation of tartar, but the water retains its calcium content.

Strong and permanent magnetic fields treat water against the harmful effects of limestone without any chemicals and without any energy requirements. They thus make it possible not to produce waste resulting from the use of chemical substances, unlike other types of treatment. Magnetic water treatment has different applications: it can be used for boilers, electric water heaters, washing machines, dishwashers, swimming pools and irrigation systems.

PRODUCT VISUALS



ACHIEVEMENTS



- ❖ iCAN 2020 **Gold Medal Award**
- ❖ iCAN 2020 **TISIAS Canadian Special Award**
- ❖ iCAN 2020 **INNOPA Special Award**
- ❖ iCAN 2020 **Certificate of Appreciation (Excellence)**
- ❖ **Jury recognized Dr. Maisa as an outstanding chemist**

INVENTION PRESENTED BY
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