

Sole werden nach zwei Methoden hergestellt, und zwar Dispersion und Kondensation. Bei Dispersionstechnik werden die eindrucksvolleren Teilchen in einen kleineren Zustand zerkleinert und dann werden sie in einem dispergierten Medium gelöst. Kondensation bedeutet die Erhöhung der Partikelgröße auf die gewünschten Parameter unter Verwendung einiger chemischen oder physikalischen Prozesse. Bei diesen Methoden wird eine neue Phase in einem homogenen Medium gebildet, das durch einen kolloidalen Dispersionsgrad der Partikel gekennzeichnet ist.

Zur Reinigung von Solen werden Filtration, Dialyse, Elektrodialyse, Ultrafiltration und kompensatorische Dialyse verwendet.

Zur Zerstörung von Solen gibt es eine Sedimentationsmethode und eine Koagulationsmethode.

Sole werden häufig in Gummi-, Textil-, Leder-, Seifenherstellung-, Farben-, Lacke- und anderen Industrien verwendet.

Die Bauindustrie und die Landwirtschaft sind ohne kolloidal verteilte Systeme nicht vorstellbar. Sole helfen verschiedene Schädlinge bekämpfen, die die Kulturpflanzen zerstören, sowie die Untersuchung von Bodenkolloiden durchführen, die sich auf die Fruchtbarkeitsindikatoren von Kulturpflanzen auswirkt.

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NEW ENERGY TECHNOLOGIES: WIRELESS CHARGING

There are over 4 billion mobile phone users in the world, a figure that is expected to grow to 5 billion by the end of the decade. We have all become hugely dependent on this amazing tool and the feeling of it running out of battery is all too familiar: the desperate scramble before it goes gently into the night. These devices last, at best, about one full day on a charge and must spend the better part of the evening tethered to a wall. Unless you are constantly carrying your charger with you, it is difficult to keep your phone from dying over the course of a busy day. But what if we could charge our phones conveniently without having to find a plug and carrying a charger with us at all times?

It is called wireless charging, and it is popping up in cafes, fast food restaurants, and IKEA furniture. Although there are competing standards, wireless charging is power delivery from a power source to an electronic

device without the need for a tethered wired connection. Inductive charging is the most popular form of wireless charging for mobile devices, and leading the way is the Wireless Power Consortium, with their Qi Open Interface standard. Using fundamentally the same technology, other groups are incorporating inductive charging technology for use in electric vehicles.

An inductive charger consists of only a few parts: AC current from the wall, an oscillator electrical circuit, and the transmission coil. The transmission coil is a tightly wound copper element that, as the alternating current passes through, would produce a magnetic flux. The magnetic flux density is based on things like the number of turns in the wire, the diameter of the transmission coil, the distance from the coil and other properties, such as current. On the receiver's end the process is basically the same, except opposite. In the receiver device, a coil of the same type is embedded into the charging circuit. The alternating magnetic field is picked by the receiving coil, and a current is induced. The AC power is passed through a power rectifier and stabilizer to convert it into DC power the phone can use to charge the battery. Both the transmitter and the receiver have electrical resonant frequencies, designed to be the same.

The sharpest engineers in the energy field are still working at this problem digging deeper into the technology and beyond.

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GRAPHIC DESIGN IN OUR LIFE

Nowadays, the concept of “design” has expanded its boundaries so much that it is already difficult for us to imagine the world around us without it. Design has penetrated all spheres of human activity. This also applies to such a type of design art as graphic design. We encounter its manifestations everywhere – we buy newspapers, books and glossy magazines, pay attention to leaflets, labels and colorful posters, and deal with graphic design in printing and the Internet.

Graphic design has turned into a process of changing the visual-communicative environment that surrounds a person in everyday life. Graphic design - shapes views and affects a person's life. Today, graphic design is an entire science that combines the prudence of an analyst with the creative abilities of an artist.