

New Edible Coating to Extend Shelf Life of Fruits and Vegetables



A team of researchers from IIT Guwahati, have developed an edible material that when coated on vegetables and fruits, significantly increased their shelf-life. To develop the edible material, the researchers combined an extract of a marine microalga called *Dunaliella tertiolecta* with polysaccharides. The material was tested on potatoes, tomatoes, green chillies, strawberries, Khasi Mandarin, apples, pineapples, and kiwis and was found to keep these fruits and vegetables fresh for nearly two months.

Source: India Science Wire

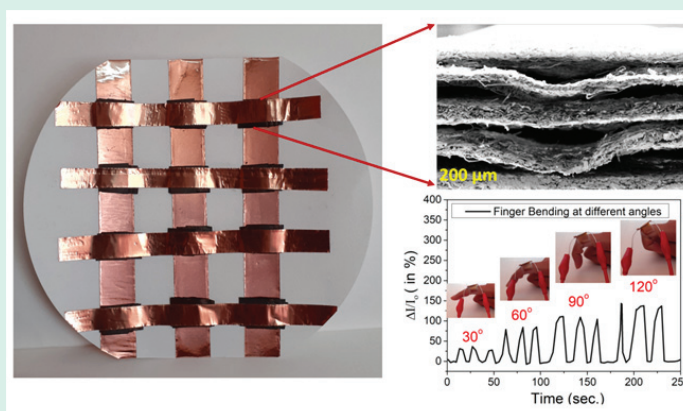
IIT Delhi Launches Mobile Application 'IITD Aab Prahari'



A mobile application named “IITD Aab Prahari” has been launched by the Water Security Hub project of IIT Delhi to address waterlogging issues in urban areas during the monsoon. By capturing the waterlogging and uploading the data to a central server, the “IITD Aab Prahari” mobile application system enables individuals and communities to report the real-time incidence of flooding in and around their surroundings. The app is currently available on Google Play and will soon be available on the iOS app store.

Source: IIT Delhi, Press release

Sensing Pressure Using Paper

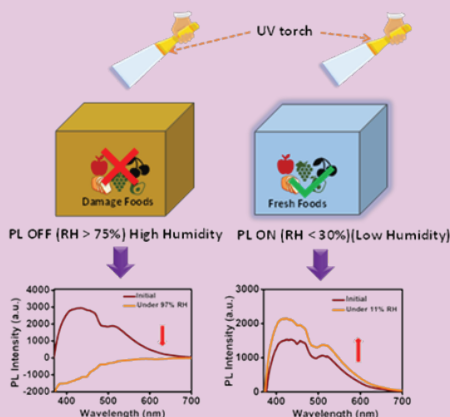


Wearable paper pressure sensor (Image Credit: Neha Sakhuja)

A team of researchers from the Indian Institute of Science (IISc), Bengaluru, has fabricated pressure sensors that use paper as the medium. According to scientists, it is highly sensitive and can also detect a wide range of pressures (0-120 kPa) with a response time of just one millisecond. The sensor is made of plain and corrugated cellulose papers coated with the chemical tin-monosulfide (SnS), stacked alternatively to form a multi-layered architecture. Under specific conditions, semiconductor tin-monosulfide can conduct electricity. The paper was published in the *ACS Sustainable Chemistry & Engineering*.

Source: IISc, Press release

Biodegradable, Biopolymer Nanocomposite to Detect Relative Humidity



SCIENTISTS from the Institute of Advanced Study in Science and Technology (IASST), have developed biodegradable, biopolymer nanocomposite that can detect relative humidity. These materials can be used as smart packaging, particularly for the food industry. In this, carbon dots (nanomaterial) were combined with two biopolymers, Guar Gum (a variety of beans derived from plant) and Alginate (derived from brown algae) to develop a nanocomposite film that was effectively used to detect relative humidity. The fabricated nanocomposite film was an excellent smart sensor based on the fluorescence ‘on-off’ mechanisms against humidity. The research was published in the *International Journal of Biological Macromolecules*.

Source: PIB, Press release