
Cheaper solar cell possible

A Hamilton university professor says he has developed a cheaper way to make the cells which are used to collect solar energy.

Until now, solar cells, which convert sunlight into electricity, have been made of silicon. But silicon is expensive and scientists have been looking for a replacement.

John Shewchun, a science professor at McMaster University, says he can make the cells from elements that are much cheaper and more common — copper, gallium, indium, selenium and tellurium. Officials of the U.S. National Aeronautics and Space Administration say the scheme could work.

His discovery may also help the Canadian mining industry, which has been trying to find uses for selenium and tellurium for years.

Professor Shewchun says his process involves painting a thin film of the elements on a material like aluminum foil. "...Because the materials are very thin, four square inches of it costs about 50 cents," he said.

Program aids offenders

Programs in two Saskatchewan cities are providing an alternative to the traditional criminal process of trial and sentence.

The mediation-diversion project of the John Howard Society in Regina and Moose Jaw are designed to negotiate out-of-court settlements between the accused and the complainant.

The project handles cases involving a variety of Criminal Code charges, including common assault, theft under \$200, wilful damage, fraud and causing a disturbance. The Society's director, James Coflin, says it is the only project he knows of that involves a face-to-face meeting between accuser and accused.

The program is the creation of the John Howard Society of Saskatchewan, one of a national network of organizations that help offenders and former prisoners readjust to society.

Cases are referred for mediation by the Crown Attorney's office after criminal charges have been laid. At the first court appearance, the prosecutor asks the court to postpone the case for several weeks. If the mediation is successful, the Crown later withdraws the charges.

"We don't go in there with the attitude that we're going to cure all your ills," caseworker Elaine Jerome said. All the mediators try to accomplish is a resolution of whatever conflict led to the criminal charges. "There has to be a resolution."

The project staff says very few cases result in failure to reach agreement and virtually all agreements are fulfilled. Both the complainant and the accused must agree to mediation after the Crown Attorney recommends it. If one side refuses, or if an agreement is not fulfilled, the case goes back to court.

Sometimes, as in marital disputes that have led to assault charges, an agreement may include a commitment to seek counselling. Other agreements include community service work or restitution for damages (either money or work for the complainant).

Most are first-timers

Some offences do not qualify for mediation, including so-called victimless crimes such as narcotics possession, where there's no one to negotiate a settlement with except the police. Most candidates for mediation are first-time offenders.

The \$90,000 annual cost of the project is paid by the Donner Foundation, the United Way and the Saskatchewan government. Guidelines for the project were worked out with the provincial Attorney-General's Department, which oversees the work of Crown attorneys.

Delmar Perras, Saskatchewan's director of public prosecutions, said he thought mediation might help deter first-time offenders from future offences, without bringing the full weight of the criminal justice system to bear.

Benefits of breastfeeding

The Paediatrics Association of Canada is promoting breastfeeding in Canada, to celebrate the International Year of the Child. Its goal is to double the number of mothers who will breastfeed their babies for at least two months.

The scientific community has shown a renewed interest in breastfeeding as a healthy practice, valuable to the physical and psychological well-being of the child.

A breastfed infant is thought to be well protected against an iron deficiency. Though mother's milk contains small quantities of iron, it is well-absorbed and

sufficient for the baby's needs for at least six months. Breastfeeding also makes a baby more resistant to infection, especially gastro-enteritis, an inflammation of the lining of the stomach and the intestines, which is a common cause of infant mortality. Through breastfeeding, the infant is also less prone to develop food allergies in later life. This type of feeding, it is suggested, creates an intimate contact that enhances bonding, the foundation of the mother-child relationship.

Canadian toy car sales accelerate

Exporting toys to the Middle East has become a big business for Irwin Toys of Toronto, which accounts for 80 per cent of such Canadian exports to Arab countries, according to a company spokesman.

One toy that is becoming a big seller among the wealthy in the Middle East and some Europeans is the mini-car — a scaled-down version of a real car. Irwin stocks 32 different models, which cost up to \$1,000 each.

The vehicles, a little more than two feet high and up to seven feet long, resemble the bumper cars often seen in carnival shows, except that these fibreglass models are equipped with pneumatic tires, clutch, and a lawn-mower gasoline engine.

Although the car's gas tank holds only one quart of gas, an Irwin representative said some models can get about 75 miles to the gallon at a top-cruising speed of 15 miles an hour.

Khamis Samnah, export manager for international sales, said he had sold about 600 cars to buyers in the Middle East in the past year. Although the cars are not intended for road use Mr. Samnah said he has seen the vehicles being driven by children along the streets of major Middle Eastern cities.

Playthings

Irwin Toys first began advertising the toy cars in European magazines about a year ago. There were some European buyers, but the bulk of the exporting so far has been to the Arab countries.

The company's Saudi Arabian agent sells the cars mostly to automobile dealers who, in turn, put the toys in their showrooms along with the real cars. This way, when Arab businessmen come in to buy a car they can pick up something for the children, too.