

# Design and materials

Design



Crop such corn, wheat, beet and potatoes can all be used as raw material ;  
PLAN is bio degradable Anna Technology ; Anna technologies are now  
making machine that are less than Mann in size ; There are two approaches  
to making the molecular machines ; You can sculpt or 'chisel away at  
materials until you are left with the molecules or atoms that you want on the  
surface. Microelectronics at the molecular level uses this technique The  
latest developments involve building your machine up from individual atoms  
or molecules. BACKSLASH ; The discovery of a form of carbon called  
buckminsterfullerene first triggered interest in nonpareils and the field of  
Anna- science ; Since its discovery, chemist have now identified other similar  
molecules, called fullness. ; Buck-tubes have also been made.

Thesetubes called nanotubes, consist of a single rolled up sheet of carbon  
atoms in the graphite structure and are incredibly strong.

It also has free electrons, so they will have uses in electrical equipment  
Other possible application of nanotechnology and Anna-science range from  
civil engineering to advanced molecular electronics. Fighting pollution ; In  
the sass scientist found a hole in Ozone layer above Antarctica ; Source of  
the problem is CUFF because in stratosphere, ultraviolet light from the Sun  
breaks up their molecules. Then a highly reactive chlorine atom split off,  
forming a chlorine free radical. ; it has been estimated that each chlorine  
free radical can destroy 100000 ozone molecules The sunlight that reaches  
us is made up of two types of harmful rays: long wave ultraviolet A (VA) and  
short wave ultraviolet B (PUB). Basically, VA rays can age us and JIVE rays  
can burn us. Overexposure to either can damage the skin.

There's also a third type of ray, I-C. V. these are the shortest and strongest VA rays penetrate deep into the dermis. Unprotected exposure can lead to premature skin aging and suppression of the immune system. JIVE rays will usually burn the superficial layers of your skin. The intensity of JIVE rays vary by season, location and time of day, with IMAM to PM being the peak hours. Health Problems Increased risk of sunburn Ageing of skin More skin cancer cases Cataracts Disrupt the Photosynthesis ; Most countries banned the use of CIFS ; Huffs (hydrocephalus's) are similar to CIFS but it is faster to degrade but it also cause global warming ; Researchers are developing the Substitute for CIFS.

Green Chemistry ; Industrial chemists are becoming aware of the need to conserve the Earth's resource and to stop the damage that is being caused to the environment ; Green Chemistry enable us to maintain and improve living standard through sustainable development that will safeguard the Earth for future generation There are six important principle of greener chemical industry. 1 . Design of process to maximize the amount of raw material that is converted into product 2. The use, wherever possible, of raw material or feedstock that are renewable. 3. The use of safe, environmentally friendly solvents or no solvents at all where possible 4. Substance, and the form of the substances, used in a chemical processes should be selected to minimize the potential risk of chemical accident 5. The design of energy-efficient processes 6. The consideration of waste reduction in the production process and at the end of a product's life cycle