The most important among the semiconductor devices, the transistors, were invented in 1948. Their invention and development resulted in the expanded use of semiconductor devices of all kinds. Semiconductor devices can usually perform all the elementary functions of oscillation, amplification, modulation and demodulation, rectification, etc. with greater economy of cost, space, and power, than can other devices such as vacuum tubes and relays. Semiconductor devices are used in measuring techniques, automatics, computers, radio and TV sets. A new industry – helioengineering\* - has appeared. Solar batteries are successfully operating on sputniks and spaceships.