

The invention can be used in engineering and industry as ecologically pure margin of energy, for example, in manufacturing motors, technologic mechanism drives, in particular under pressing, presswork, destruction of hard-rocks. At bottom of using chain reaction of molecular oxygenous decomposition is set a chain reaction of gaseous substance molecule decomposition into atoms in the presence of radicals with internal energy release of molecular decomposition upon availability of initiating component, the theory being developed by academician of N.N. Semenov as well as facts of oxygen accidental detonation. The device for using chain reaction energy of oxygen molecular decomposition comprises a closed reactor pot cavity with gaseous energy charge elements, initiating substance injection system, power control system and regeneration system of waste molecular oxygen. Explosive energy from reaction cavity is passed to mobile piston being an available capacity output node element. The invention provides conversion of chain reaction of molecular oxygenous decomposition of atoms and radicals into mechanical power node energy under high ecologic standards of device operation by given method.