

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
КАФЕДРА ІНОЗЕМНИХ МОВ
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ
ЦЕНТР**

**МАТЕРІАЛИ
X ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ
КОНФЕРЕНЦІЇ СТУДЕНТІВ, АСПІРАНТІВ ТА
ВИКЛАДАЧІВ
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО
ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ**

**“WITH FOREIGN LANGUAGES TO MUTUAL
UNDERSTANDING, BETTER TECHNOLOGIES AND
ECOLOGICALLY SAFER ENVIRONMENT”**

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ITER IS A CHALLENGE OF GLOBAL SOCIETY

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Nowadays, humanity requires more and more and more energy. What is more, present sources of energy can't provide modern society with it, besides, they are not rational and ecological enough, so that tends to be the only way to create new, radically new, source of energy and it is fusion reactor. Fusion reactor is a source of energy of new generation. ITER (International Thermonuclear Experimental Reactor) is a first step to create a commercially viable reactor. ITER elements in structure are very complex and expensive. Main parts of reactor are strong magnets, vacuum vessels, blanket, diverter and cryostat and they are supported by complex additional structures and it occupies 180-hectare site. In the nutshell the principle of working of this reactor is recycling isotopes of hydrogen in helium with massive energy releasing that occur due to thermonuclear reaction (the same as reactions inside the Sun) and creating hot plasma above 150 million degrees Celsius inside the reactor. In the incoming future if ITER is completed it will produce ecologically safe energy in amount of 500 MW for the first time instead of 50MW of input power and it will be a huge leap for the advancement of this technology worldwide. In conclusion it might be said that this invention is future of getting "unlimited" energy and it could give humanity new ways for developing science, clear technology and society. This safe and clear energy is our future.