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ENERGY; 4.5 IRREVERSIBILITY; 4.6 GRAPHICAL REPRESENTATION OF AVAILABLE ENERGY AND IRREVERSIBILITY; 4.7 AVAILABILITY BALANCE FOR A CLOSED SYSTEM; 4.8 AVAILABILITY BALANCE FOR AN OPEN SYSTEM; 4.9 EXERGY; 4.10 THE VARIATION OF FLOW EXERGY FOR A PERFECT GAS; 4.11 CONCLUDING REMARKS; 4.12 PROBLEMS; CHAPTER 5 - RATIONAL EFFICIENCY OF POWER PLANT; 5.1 THE INFLUENCE OF FUEL PROPERTIES ON THERMAL EFFICIENCY; 5.2 RATIONAL EFFICIENCY; 5.3 RANKINE CYCLE; 5.4 EXAMPLES  
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### Sommario/riassunto

Advanced Thermodynamics for Engineers, Second Edition introduces the basic concepts of thermodynamics and applies them to a wide range of technologies. Authors Desmond Winterbone and Ali Turan also include a detailed study of combustion to show how the chemical energy in a fuel is converted into thermal energy and emissions; analyze fuel cells to give an understanding of the direct conversion of chemical energy to electrical power; and provide a study of property relationships to enable more sophisticated analyses to be made of irreversible thermodynamics, allowing for new ways of efficiently

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