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P3.227 Analysis of S-CO2 Brayton Power Cycles for Fusion power reactors

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The paper focuses on the design of appropriate power cycles for fusion power reactor, two S-CO2 Brayton cycles, and its positive and negative aspects. The goal of the paper is to propose a suitable power cycle and its optimization for the European fusion power plant DEMO2. Comparison of cycles in terms of using more heat resources at once is depicted. The study gives a principal preview of main technical parameters of the suitable S-CO2 power cycles. Optimization of suggested designs in order to maximize the power of the fusion power plants is presented.

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