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P3.168 Electromagnetic analysis of the water cooled breeder blanket for CFETR Phase II

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China Fusion Engineering Test Reactor (CFETR), the next-step fusion device of China, is proposed to design and operate in two phases. The physical parameters and machine sizes of CFETR have been updated in 2018. It is required that one blanket design can cover two operation phases of CFETR. The water cooled ceramic breeder (WCCB) blanket for CFETR phase II, one candidate CFETR blanket option, is been updated in Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP). Electromagnetic(EM) analysis model has been built by ANSYS code. Eddy current and EM force results under different operation conditions are calculated for future structure analysis and optimization. Simultaneous, an analysis of ripple induced by reduced activation ferritic/martensitic(RAFM) steel in WCCB blanket is evaluated with the method of Static Magnetic Analysis. The method for reducing the ripple has been studying in this paper.

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