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Performance analyses of an integrated phosphoric acid fuel cell and thermoelectric device system for power and cooling cogeneration

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Highlights

- A thermoelectric device is proposed to recover the waste heat from a PAFC.
- Thermal-electrochemical losses in the proposed system are characterized.
- Performance parameters for evaluating the proposed system are obtained.
- Maximum power density and the corresponding efficiency are increased by over 2.0%.
- Effects of physical properties and working conditions are discussed.

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