

**Volume 44, Issue 9**

Pages: i, 7105-7859

July 2020

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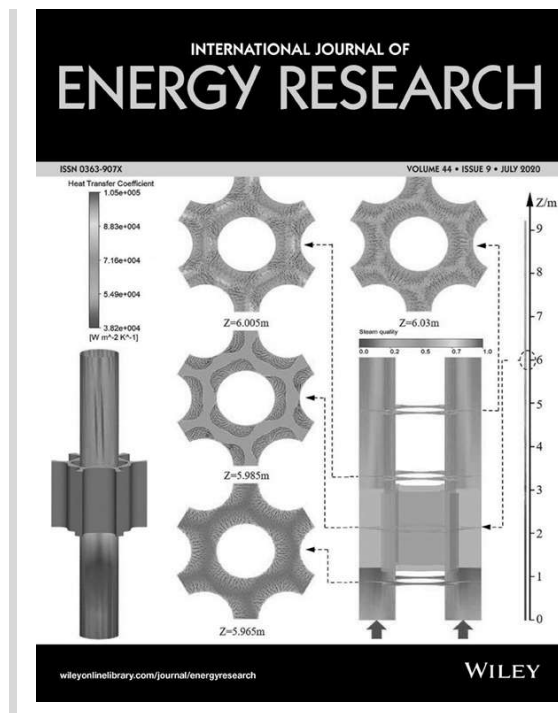
**COVER IMAGE**

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**Cover Image**

Zengguang Sui, Jun Yang, Chengcheng Deng, Ye Yang

Pages: i | First Published: 23 June 2020



The cover image is based on the Research Article *Numerical simulation of the effects of trefoil tube support plates on the flow and heat transfer characteristics of a steam generator* by Zengguang Sui et al., <https://doi.org/10.1002/er.5512>.

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## ISSUE INFORMATION

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### Issue Information

Pages: 7105-7107 | First Published: 23 June 2020

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## REVIEW PAPERS

**Performance improvement of supercritical carbon dioxide power cycles through its integration with bottoming heat recovery cycles and advanced heat exchanger design: A review**

Ramy H. Mohammed, Ali Sulaiman Alsagri, Xiaolin Wang

Pages: 7108-7135 | First Published: 31 March 2020

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**Deep learning methods and applications for electrical power systems: A comprehensive review**

Asiye K. Ozcanli, Fatma Yaprakdal, Mustafa Baysal

Pages: 7136-7157 | First Published: 30 March 2020

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**Electrochemical impedance spectroscopy study of commercial Li-ion phosphate batteries: A metrology perspective**

Lisa Deleebeeck, Sune Veltzé

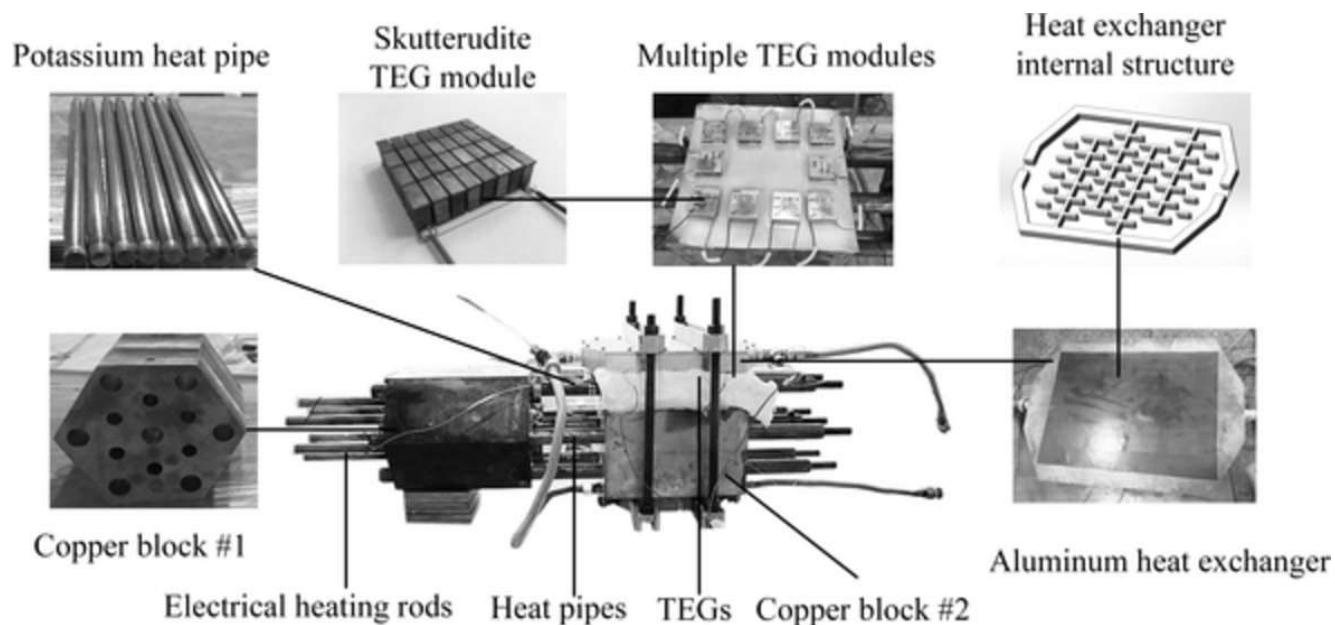
Pages: 7158-7182 | First Published: 15 April 2020

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## Experimental investigation of a novel heat pipe thermoelectric generator for waste heat recovery and electricity generation

Simiao Tang, Chenglong Wang, Xiao Liu, Guanghui Su, Wenxi Tian, Suizheng Qiu, Qihao Zhang, Ruiheng Liu, Shengqiang Bai

Pages: 7450-7463 | First Published: 30 April 2020



A novel waste heat recovery system is proposed assisted by a heat pipe and thermoelectric generator (TEG) namely, heat pipe TEG (HPTEG), to simultaneously recover waste heat and achieve electricity generation. Static energy conversion and passive thermal transport were achieved with the assistance of skutterudite TEGs and potassium heat pipes based on a laboratory-scale HPTEG prototype. High TEGs thermoelectric conversion efficiency of 7.5% and TEG electrical output power of 183.2W were achieved.

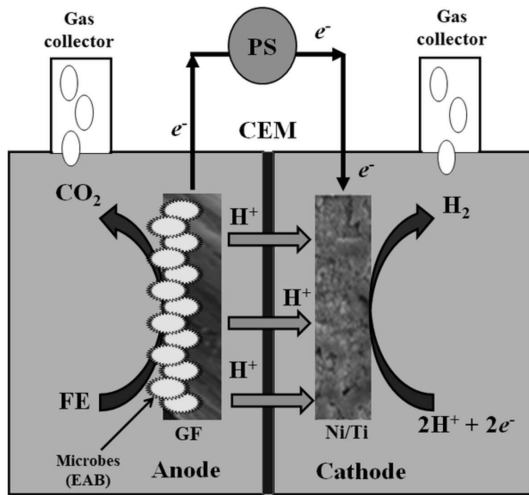
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## Feasibility of Ni/Ti and Ni/GF cathodes in microbial electrolysis cells for hydrogen production from fermentation effluent: A step toward real application

Ibdal Satar, Mimi Hani Abu Bakar, Wan Ramli Wan Daud, Nazlina Haiza Mohd Yasin, Mahendra Rao Somalu, Byung Hong Kim

Pages: 7464-7476 | First Published: 12 May 2020

Schematic of microbial electrolysis cell (MEC) for hydrogen production from dark fermentation effluent (FE).

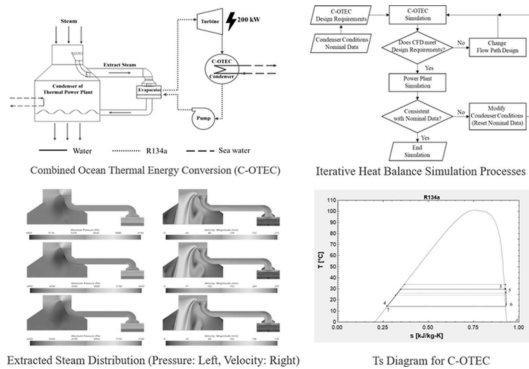


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## Conceptual design for combined ocean thermal energy conversion using computational fluid dynamics and heat balance analysis

Eojin Jeon, Gyunyoung Heo, Iljin Kim, Hyungdae Kim, Hoon Jung

Pages: 7477-7494 | First Published: 22 April 2020



This paper introduced one of the new organic Rankine cycle applications, combined ocean thermal energy conversion (C-OTEC), which utilizes exhaust steam from a condenser of thermal power plant as a heat source. The technical feasibility of the 200 kW C-OTEC was examined using the method of interactive heat balance simulation and computational fluid dynamics. We also provided the quantitative pros and cons on the performance of existing thermal power plants while installing a large-scale C-OTEC.

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## Efficient model predictive control for real-time energy optimization of battery-supercapacitors in electric vehicles

Shiming Yu, Di Lin, Zhe Sun, Defeng He

Pages: 7495-7506 | First Published: 28 April 2020

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