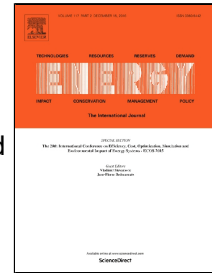


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Experimental investigation on the thermal performance of cooling pipes embedded in a graphitization furnace



Chong Shen, Maoyong Zhang, Xianting Li

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Highlights

1. Cooling pipes are embedded in the furnace with gas ventilated inside.
2. A practical design of the heat recovery system is proposed and validated.
3. Based on experiments, 28.2% of the heating energy can be recovered.
4. The cooling period is reduced by nearly one third.
5. The influence of flow rate and external insulation is investigated.

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