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TAMAKI(10) **Pub. No.: US 2024/0244976 A1**(43) **Pub. Date: Jul. 18, 2024**(54) **THERMOELECTRIC CONVERSION UNIT,
METHOD OF MANUFACTURING
THERMOELECTRIC CONVERSION UNIT,
AND METHOD OF USING
THERMOELECTRIC CONVERSION UNIT****Publication Classification**(51) **Int. Cl.**
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ABSTRACT

A thermoelectric conversion unit includes: a first fluid passage that has a first main surface and a second main surface and through which a first fluid flows; a second fluid passage through which a second fluid having a higher temperature than the first fluid flows; a pair of thermoelectric modules including a first thermoelectric module and a second thermoelectric module; and a pair of magnetic body portions disposed inside of or on a surface of the first fluid passage along a predetermined direction from the first main surface toward the second main surface. Each of the first and second thermoelectric modules generates an electromotive force based on a temperature difference between the first fluid and the second fluid. Magnetic bodies of the pair of magnetic body portions are disposed so that the same magnetic poles thereof face each other, and generate magnetic forces that repel each other.

