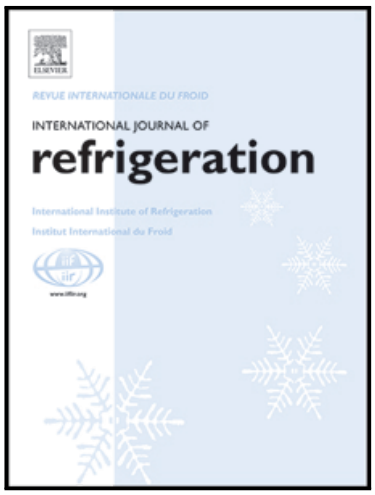

Sleeping evaporator and refrigerant maldistribution: An experimental investigation in an automotive multi-evaporator air-conditioning and battery cooling system

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Highlights:

- Thermostatic and electronic expansion valves behaviours are experimentally compared
- Electronic expansion valves are able to tackle sleeping evaporator phenomenon
- Thermostatic expansion valves can lead to refrigerant maldistribution
- Distinct air outlet temperatures can be achieved with electronic expansions valves
- Air temperatures impact of sudden battery cooling is avoided with right regulation