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Preface

In this special issue, there are three future thermal configurations than can to reduce the greenhouse gas (GHG) emission with the implementation into actual process. One of the proposal cycles is for cooling cycles, because in development countries, the main energy consumption is due to food preservation, as International Energy Agency (IEA) data shown. Another option for the energy transformation whit new technologies are the fuel cells, with hydrogen generation from photovoltaic devices; however a proposal is to reuses heat from that process to be useful to another process. Finally, future devices to be implemented for waste heat large amounts are the advanced thermodynamic cycles: the double absorption heat transformer (DAHT) and the double state heat transformer (DSHT) may recover part of that waste heat to recycle energy from the process where the waste heat was delivered.

This special issue is a proposal for technical researchers to add thermodynamic cycles into the future process plant designs to allow a better energy transformation.

We hope these ideas keep environmental engineers on the way to a green process design.

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