

no source term
 \downarrow
 $-\Delta T = 0$

microwave radiation
 \downarrow
 $f \geq 0$

$T = 30^\circ\text{C}$ on Γ_3

Γ_3

$T = 100^\circ\text{C}$ on Γ_2

Γ_2

$T = 21^\circ\text{C}$ on $\partial\Omega \setminus (\Gamma_1 \cup \Gamma_2 \cup \Gamma_3)$

Γ_1

$T = 200^\circ\text{C}$ on Γ_1

$$21^\circ\text{C} \leq T(x) \leq 200^\circ\text{C}$$

\uparrow
 no upper bound can
 be derived if $f \geq 0$