Appendix 6

This appendix provides a summary about the study characteristics and the results from the included studies. To summarize:

- Table A6.1 summarizes the study characteristics:
  - Type computer model.
  - Type tissue.
  - Type boundary conditions (BC) at the outer surface of the model (BOS).
  - Type experiments and parameters that were validated.
- Table A6.2 provides:
  - Names of the included media in the model (electrodes, organs, etc.)
  - Values of the electrical and thermal properties of the media.
  - Threshold parameters of the media ($E_{IRE(th)}$, T_{th}, Ω_{th}, CEM43°$C_{(th)}$).
  - ❖ Please note that the data in Table A6.2 were arranged according to the names of the media.
- Table A6.3 summarizes:
  - The applied electrode characteristics.
  - The simulated pulse parameters.
  - The type boundary conditions at the boundaries between electrodes and media.
- Table A6.4 summarizes the data:
  - About the electric-field and temperature distributions.
  - About the temperature range.
  - Applied for meta-analysis.
  - About the parameters that were validated and the used pulse parameters.

Table A6.1

Table A6.1 Data about the used software package, modeling dimensions, tissue properties and BC of BOS used in the included studies. This table also shows whether the included studies performed experiments, the type of experiments, and the parameters that were validated. This table was arranged according to the reference number. The brackets "{ }" are defined as a set of elements. The following abbreviations are used: NR (Not reported), NA (Not applicable), NC (Not clear), NTA (No thermal analysis), and ND (Not defined).

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
FEMLAB V2.2 (Finite element method)	2D	Liver	{Homogeneous, Isotropic, Non-Linear}	σ(T)	k(T)	Yes	Neumann	Neumann	No	NA	NA	[3]
FEMLAB (Finite element method)	2D	Liver	{Homogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Neumann	Yes (In vivo, rat)	{σ, $E_{IRE(th)}$}	NA	[24]
NR	1D	Skin	{Homogeneous, Isotropic, Linear}	σ	k	No	NA	NA	Yes (In vivo, mouse)	NA	NA	[25]
FEMLAB (Finite element method)	{2D, 3D}	ND	{Homogeneous, Heterogeneous, Isotropic, Linear}	σ	k	NR	Neumann	Neumann	No	NA	NA	[26]
FEMLAB (Finite element method)	2D	ND	{Homogeneous, Isotropic, Linear}	σ	k	No	Neumann	Neumann	No	NA	NA	[27]
COMSOL Multiphysics V3.4 (Finite element method)	2D	{Breast, Prostate}	{Homogeneous, Heterogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Dirichlet (37 °C)	No	NA	NA	[28]
NR	3D	Breast	{Heterogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Neumann	Yes (In vitro)	$E_{IRE(th)}$	NA	[29]
Analytic	1D	In vitro	{Homogeneous, Isotropic, Linear}	σ	k	No	NA	NA	Yes (In vitro)	NA	NA	[30]
COMSOL Multiphysics V3.5A (Finite element method)	3D	Brain	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E, T)	k	Yes	Neumann	Neumann	Yes (In vivo, dog)	$E_{IRE(th)}$	NA	[31]
COMSOL Multiphysics V3.4	2D	Prostate	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	Neumann	NTA	No	NA	NA	[32]

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
(Finite element method)												
NR (Finite element method)	2D	Artery	{Homogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Dirichlet (37 °C)	Yes (In vivo, rabbit)	NA	NA	[33]
COMSOL Multiphysics V3.5A (Finite element method)	2D	Artery	{Homogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Dirichlet	No	NA	NA	[34]
COMSOL Multiphysics (Finite element method)	3D	Breast	{Heterogeneous, Anisotropic, Linear}	σ	NTA	NTA	NR	NTA	Yes (In vivo, mouse)	NA	NA	[35]
COMSOL Multiphysics V3.5A (Finite element method)	2D	Artery	{Homogeneous, Isotropic, Linear}	σ	k	No	Neumann	Dirichlet (37 °C)	Yes (In vivo, rat)	$E_{IRE(th)}$	NA	[36]
COMSOL Multiphysics V3.5A (Finite element method)	2D	Liver	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E, T)	k	Yes	Neumann	Robin ($h = 10$ W·m^{-2}·°C^{-1}, $T_{env} = 21$ °C)	Yes (Ex vivo, pig)	$E_{IRE(th)}$	NA	[37]
COMSOL Multiphysics (Finite element method)	2D	Liver	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	Neumann	NTA	Yes (In vivo, rat)	$E_{IRE(th)}$	NA	[38]
COMSOL Multiphysics V3.4 (Finite element method)	2D	Liver	{Heterogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Neumann	No	NA	NA	[39]
COMSOL Multiphysics V3.5A (Finite element method)	3D	Brain	{Homogeneous, Isotropic, Linear, Non-linear}	{σ(E, T), σ(T)}	k	Yes	Neumann	Neumann	Yes (In vivo, dog)	Pennes bioheat equation	NA	[40]

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
COMSOL Multiphysics V3.5A (Finite element method)	2D	Artery	{Homogeneous, Isotropic, Non-linear}	σ	k	Yes	Neumann	Dirichlet (37 °C)	Yes (In vivo, rat)	$E_{IRE(th)}$	NA	[41]
COMSOL Multiphysics V3.5A (Finite element method)	3D	Subcutaneous tissue	{Heterogeneous, Isotropic, Non-linear}	σ(E)	k	Yes	Neumann	NR	No	NA	NA	[42]
COMSOL Multiphysics V4.2A (Finite element method)	3D	In vitro	{Homogeneous, Isotropic, Non-linear}	σ(T)	k	No	Neumann	{Neumann, Robin} ($h = 25$ W·m^{-2}·°C^{-1}, $T_{env} = 22$ °C)	Yes (In vitro)	{Heat transfer equation, σ(T)}	Heat equation excluding Q_m and w_b	[43]
COMSOL Multiphysics V3.5A (Finite element method)	3D	Eye	{Heterogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Robin (From sclera and retina to the body core: $h = 65$ W·m^{-2}·°C^{-1}, From the cornea to the surroundings: $h = 20$ W·m^{-2}·°C^{-1}, $q_e = 40$ W·m^{-2}, $T_{env} = 25$ °C, $\varepsilon_s = 0.975$)	No	NA	NA	[44]
COMSOL Multiphysics V3.5A (Finite element method)	3D	Kidney	{Homogeneous, Isotropic, Linear, Non-linear}	{σ, σ(T), σ(E), σ(E, T)}	k	Yes	Neumann	Robin ($h = 94$ W·m^{-2}·°C^{-1}, $T_{env} = 37$ °C)	Yes (Ex vivo, pig)	σ(E)	NA	[45]
COMSOL Multiphysics V4.1 (Finite element method)	3D	Liver	{Homogeneous, Heterogeneous, Isotropic, Non-linear}	σ(E(t), t)	NTA	NTA	NR	NTA	No	NA	NA	[46]
Marc/Mentat (Finite element method)	3D	In vitro	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	Dirichlet ({V_P, 0})	NTA	Yes (In vitro)	$E_{IRE(th)}$	NA	[47]
COMSOL Multiphysics V3.5	3D	Liver	{Homogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	NR	Yes (In vivo, rat)	NA	NA	[48]

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
(Finite element method)												
COMSOL Multiphysics V3.5A (Finite element method)	3D	Prostate	{Homogeneous, Isotropic, Linearity for σ NC, Linear for k}	NC	k	Yes	NR	NR	Yes (In vitro)	NA	NA	[49]
Analytic	1D	Prostate	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	NA	NTA	Yes (In vivo, mouse)	$E_{IRE(th)}$	NA	[50]
COMSOL Multiphysics V4.2 (Finite element method)	2D	Rectal wall	{Homogeneous, Isotropic, Linear}	σ	NTA	No	Dirichlet (0 V)	NTA	Yes (In vivo, pig)	NA	NA	[51]
COMSOL Multiphysics (Finite element method)	2D	Pancreas	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	Dirichlet (0 V)	NTA	Yes (In vivo, pig)	$E_{IRE(th)}$	NA	[52]
COMSOL Multiphysics V4.4 (Finite element method)	2D	Liver	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E)	k	No	Neumann	Dirichlet (T_{env} = 37 °C)	No	NA	NA	[53]
QuickField (Finite element method)	2D	Liver	{Homogeneous, Heterogeneous, Isotropic, Non-linear}	σ(E)	NTA	NTA	NR	NTA	Yes (In vivo, rat)	NA	NA	[54]
CFdesign (Finite element method)	3D	ND	{Homogeneous, Isotropic, Linear}	σ	k	No	Dirichlet (0 V)	Dirichlet (T_{init})	No	NA	NA	[55]
COMSOL Multiphysics V3.5A (Finite element method)	3D	Prostate	{Homogeneous, Heterogeneous, Isotropic, Non-linear}	σ(E)	NTA	NTA	NR	NTA	Yes (In vivo, dog)	{$E_{IRE(th)}$, σ_{init}, σ_{max}}	NA	[56]
COMSOL Multiphysics V3.5A	3D	Brain	{Homogeneous, Isotropic, Linear, Non-linear}	{σ, σ(E)}	NTA	No	Neumann	NTA	Yes (In vitro)	$E_{IRE(th)}$	NA	[57]

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
(Finite element method)												
COMSOL Multiphysics V3.5A (Finite element method)	3D	Subcutaneous tissue	{Heterogeneous, Isotropic, Linear}	σ	k	Yes	Neumann	Neumann	No	NA	NA	[58]
COMSOL Multiphysics V3.5A (Finite element method)	2D	Small intestine	{Homogeneous, Heterogeneous, Isotropic, Anisotropic, Linear, Non-linear}	{σ, σ(E)}	k	No	Neumann	Robin ($h = 10\ W{\cdot}m^{-2}{\cdot}°C^{-1}$, $T_{env} = 20\ °C$)	Yes (In vivo, rat)	NA	NA	[59]
COMSOL Multiphysics V4.4	3D	In vitro	{Homogeneous, Isotropic, Linear, Non-linear}	σ(T)	k	No	Neumann	NR	Yes (In vitro)	NA	NA	[60]
COMSOL Multiphysics V4.3	3D	In vitro	{Homogeneous, Isotropic, Linear}	σ	k	No	Neumann	{Neumann, Robin} (Upper part of electrodes: $h = 50\ W{\cdot}m^{-2}{\cdot}°C^{-1}$)	Yes (In vitro)	$E_{IRE(th)}$	NA	[61]
COMSOL Multiphysics	3D	Liver	{Heterogeneous, Isotropic, Linear, Non-linear }	σ(E, T)	k	Yes	NR	NR	No	NA	NA	[62]
COMSOL Multiphysics V4.2A (Finite element method)	3D	Kidney	{Homogeneous, Isotropic, Linear, Non-linear}	{σ, σ(E)}	NTA	No	Neumann	NTA	Yes (In vivo, dog)	σ(E)	NA	[63]
NR	1D	Prostate	{Homogeneous, Isotropic, Linear, Non-linear}	$\sigma(n_P)$	k	{Yes, No}	NA	NA	No	NA	NA	[64]
COMSOL Multiphysics (Finite element method)	2D	Kidney	{Homogeneous, Isotropic, Linear}	σ	k	NTA	NR	NTA	Yes (In vivo, pigs)	$E_{IRE(th)}$	NA	[65]
COMSOL Multiphysics V4.2A	2D	Brain	{Homogeneous, Isotropic, Linear, Non-Linear}	σ(E)	k	Yes	Neumann	NR	No	NA	NA	[66]
COMSOL Multiphysics	3D	Prostate	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	NR	NR	Yes (Clinical)	$E_{IRE(th)}$	NA	[67]
COMSOL Multiphysics V5.2	3D	Prostate	{Homogeneous, Isotropic, Linear, Non-linear}	{σ, σ(E)}	NTA	NTA	NR	NTA	Yes (Clinical)	$E_{IRE(th)}$	NA	[68]

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
COMSOL Multiphysics	3D	Brain	{Heterogeneous, Isotropic, Linear, Non-linear}	{σ, σ(E)}	NTA	NTA	Neumann	NTA	Yes (Clinical)	NA	NA	[69]
COMSOL Multiphysics	3D	Pancreas	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E)	k	Yes	Neumann	NR	Yes (Clinical)	NA	NA	[70]
COMSOL Multiphysics V4.3A	3D	Liver	{Homogeneous, Heterogeneous, Isotropic, Non-linear}	σ(E)	NTA	NTA	NR	NTA	No	NA	NA	[71]
Analytic	2D	Liver	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	Dirichlet (0 V)	NTA	Yes (In vivo, rat)	NA	NA	[72]
COMSOL Multiphysics V5.3 (Finite element method)	3D	{Brain, In vitro}	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E, T)	k	Yes	Neumann	Neumann	Yes (In vitro)	$E_{IRE(th)}$	NA	[73]
COMSOL Multiphysics V4.2A (Finite element method)	2D	Liver	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	Neumann	NTA	Yes (In vivo, rabbit)	$E_{IRE(th)}$	NA	[74]
Marc (Finite element method)	2D	In vitro	{Homogeneous, Isotropic, Linear}	σ	NTA	NTA	{Dirichlet, Neumann} (0 V, Use of symmetry)	NTA	Yes (In vitro)	$E_{IRE(th)}$	NA	[75]
COMSOL Multiphysics V4.4 (Finite element method)	NR	Liver	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E, T)	k	Yes	NR	NR	Yes (in vivo, rabbit)	$E_{IRE(th)}$	NA	[76]
COMSOL Multiphysics V5 (Finite element method)	3D	Liver	{Homogeneous, Isotropic, Non-linear}	σ(E)	NTA	NTA	NR	NTA	Yes (ex vivo, cow)	NA	NA	[77]
COMSOL Multiphysics V5.2A (Finite element method)	2D	Cervix	{Homogeneous, Isotropic, Non-linear }	σ(E, t_P)	NTA	NTA	Neumann	NTA	Yes (In vitro)	NA	NA	[78]

Computer model		Tissue properties					Boundary conditions (BC) applied to boundaries at outer surface (BOS)		Experiments			
Used software package	Dimension of model geometry	Selected tissue	Composition	Electrical conductivity dependence	Thermal conductivity dependence	Effect of blood perfusion?	Type electrical BC at BOS	Type thermal BC at BOS	Performed experiment? (Experimental type)	Models/ parameters attempted to validate	Additional details	Ref.
IRENA (Finite difference method)	3D	Liver	{Heterogeneous, Isotropic, Linear, Non-linear}	σ(E)	NTA	NTA	{Neumann, Robin} (Parameter used is 0.01)	NTA	Yes (Clinical)	NA	NA	[79]
COMSOL Multiphysics V5.2 (Finite element method)	3D	Liver	{Homogeneous, Isotropic, Linear, Non-linear}	σ(E, T)	k	Yes	Neumann	Neumann	Yes (Ex vivo, pig)	Pennes bioheat equation	NA	[80]

Table A6.2

Table A6.2 Data about the tissue properties and the thresholds used in the included studies. This table was arranged according to the name of the media. The brackets "{ }" are defined as a set of elements, "[a, b]" is defined as the range between and including the values a and b assuming {a, b} ∈ ℝ, and "[a:c:b]" is defined as the range between and including the values a and b with step c assuming {a, b, c} ∈ ℝ. The following abbreviations are used: NR (Not reported), NA (Not applicable), NC (Not clear), NTA (No thermal analysis), ND (Not defined), and CAR (Cardiac autosynchronous rate). flc2hs is a Heavy side function in COMSOL Multiphysics.

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[S·m^{-1}]	[kg·m^{-3}]	[J·kg^{-1}·°C^{-1}]	[W·m^{-1}·°C^{-1}]	[W·m^{-3}]	[°C]	[kg·m^{-3}·s^{-1}]	[°C]	[s^{-1}]	[J·mol^{-1}]		[V·m^{-1}] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Acrylic resin	1.0·10^{-15}	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NA	NTA	NTA	NTA	[47]
Air	1·10^{-4}	1.1614	1.007·10^{-3}	0.0263	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[36]
Air	1·10^{-4}	1.1614	1.007·10^{-3}	0.0263	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[41]
Bile duct filled with bile (Healthy)	1.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[64]
Blood	NA	NR	3640	NA	NA	NA	1	37	NA	NA	NA	NA	NA	NA	NA	[3]
Blood	NA	NR	NR	NA	NA	NA	NR	37	NA	NA	NA	NA	NA	NA	NA	[24]
Blood	NR	1000	3640	0.39	NA	NA	2	37.08	NA	NA	ω_b = 0.002 s^{-1}	1000·10^2 (NR, NR, NR, NR, NR)	NA	NA	NA	[28]
Blood	NA	1060	3840	NA	NA	NA	7.579	NR	NA	NA	NA	NA	NA	NA	NA	[31]
Blood	NA	NR	3640	NA	NA	NA	NR	37	NA	NA	ω_b = 0.0005 s^{-1}	NA	NA	NA	NA	[33]
Blood	NR	1000	3640	NA	NA	NA	{0.1, 0.5, 1, 5, 10}	NR	NA	NA	NA	NA	NA	NA	NA	[34]
Blood	NA	NR	3640	NA	NA	NA	1	21	NA	NA	NA	NA	NA	NA	NA	[37]
Blood	NA	NR	3640	NA	NA	NA	1	37	NA	NA	NA	NA	NA	NA	NA	[39]
Blood	NA	1060	3840	NA	NA	NA	7.579	37	NA	NA	ω_b = 7.15·10^{-3} s^{-1}	NA	NA	NA	NA	[40]
Blood	NA	1000	3640	NA	NA	NA	0.5	37	NA	NA	ω_b = 0.0005 s^{-1}	NA	NA	NA	NA	[41]
Blood	NA	1060	3600	NA	NA	NA	4.664	37	NA	NA	ω_b = 0.0044 s^{-1}	NA	NA	NA	NA	[42]
Blood	NA	1000	3640	NA	NA	NA	{1, 6.4}	37	NA	NA	NA	NA	NA	NA	NA	[48

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
																]
Blood	0.7	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NR	NTA	NTA	NTA	[54]
Blood	NA	1060	3840	NA	NA	NA	19.08	NR	NA	NA	$\omega_b = 18 \cdot 10^{-3}\ s^{-1}$	NA	NA	NA	NA	[62]
Blood	NA	1060	3840	NA	NA	NA	7.5790	NR	NA	NA	$\omega_b = 7.15 \cdot 10^{-3}\ s^{-1}$	NA	NA	NA	NA	[66]
Blood	0.7	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	[67]
Blood	NA	1060	3840	NA	NA	NA	212	37	NR	NR	$\omega_b = 0.2\ s^{-1}$	NA	NR	NR	NR	[70]
Blood	NA	1060	3850	NA	NA	NA	NA	37	NA	NA	$\omega_b = 7.15 \cdot 10^{-3}\ s^{-1}$	NA	NA	NA	NA	[73]
Blood	NA	1000	4180	NA	NA	NA	6.4	37	NA	NA	$\omega_b = 6.4 \cdot 10^{-3}\ s^{-1}$	NA	NA	NA	NA	[76]
Blood vessel (Healthy)	NR	NR	NR	NR	NR	NR	NA	NA	NC	NC	$\sigma_{init} = 0.7\ S \cdot m^{-1}$ $\sigma_{max} = 1.05\ S \cdot m^{-1}$	NA	50 (NR)	1	NR	[62]
Blood vessel aorta (Healthy)	NA	NA	NA	NA	NA	NA	NA	NA	$5.6 \cdot 10^{63}$	$0.43 \cdot 10^{6}$	$\dot{R} = 8.314\ J \cdot mol^{-1} \cdot K^{-1}$	NA	NR	NR	NR	[55]
Blood vessel artery (Healthy)	0.6	1000	3750	0.5	NR	37	NA	NA	$5.6 \cdot 10^{63}$	$4.3 \cdot 10^{5}$	$\dot{R} = 8.314\ J \cdot mol^{-1} \cdot K^{-1}$	$1500 \cdot 10^{2}$ (NR, NR, NR, NR, NR)	NR	1	NR	[33]
Blood vessel artery (Healthy)	[0.1:0.1:0.7]	1000	3750	0.5	NR	37	NA	NA	$5.6 \cdot 10^{63}$	$4.3 \cdot 10^{5}$	NA	$1000 \cdot 10^{2}$ (NR, NR, NR, NR, NR)	NR	NR	NR	[34]
Blood vessel artery (Healthy)	0.286	1000	3750	0.5	NA	37	NA	NA	$5.6 \cdot 10^{63}$	$430 \cdot 10^{3}$	$\dot{R} = 8.314\ J\ mol^{-1}\ K^{-1}$	$1750 \cdot 10^{2}$ (70, $100 \cdot 10^{-6}$, 90, NA, {1, 4})	42	1	NR	[36]
Blood vessel artery (Healthy)	0.6	1000	3750	0.5	NA	37	NA	NA	$5.6 \cdot 10^{63}$	$4.3 \cdot 10^{5}$	$\dot{R} = 8.314\ J \cdot mol^{-1} \cdot K^{-1}$	$1750 \cdot 10^{2}$ (70, $100 \cdot 10^{-6}$, 90, NA, 4)	NR	1	NR	[41]
Blood vessel including blood	0.7	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[71]
Blood vessel wall (Healthy)	0.17	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NR	NTA	NTA	NTA	[54]
Bone (Healthy)	0.02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[71]
Bone skull (Healthy)	0.02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[69]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S{\cdot}m^{-1}$]	[$kg{\cdot}m^{-3}$]	[$J{\cdot}kg^{-1}{\cdot}°C^{-1}$]	[$W{\cdot}m^{-1}{\cdot}°C^{-1}$]	[$W{\cdot}m^{-3}$]	[°C]	[$kg{\cdot}m^{-3}{\cdot}s^{-1}$]	[°C]	[s^{-1}]	[$J{\cdot}mol^{-1}$]		[$V{\cdot}m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Brain (Cancerous)	$\sigma_{init} = 0.435\ S{\cdot}m^{-1}$ $\sigma_{max} = 0.7373\ S{\cdot}m^{-1}$	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NC	NR	NR	NR	[69]
Brain (Healthy)	0.258	1039	3680	0.0565	10437	37	NA	NR	NR	NR	NA	$700{\cdot}10^2$ (NR, NR, 90, NR, NR)	42 (If sustained for long duration)	NR	NR	[66]
Brain gray matter (Healthy)	$\sigma(E, T) = \sigma_{init}{\cdot}(1 + flc2hs(E - E_{alt}, E_{range}) + \xi{\cdot}(T - T_{init}))$	1039	3680	0.565	10437	36.1 (V_P = 500V)	NA	NA	NA	NA	$\sigma_{init} = 0.12\ S{\cdot}m^{-1}$ (V_P = 500V) $\xi = 0.032\ °C^{-1}$ $E_{alt} = 580{\cdot}10^2\ V{\cdot}m^{-1}$ $E_{range} = \pm120{\cdot}10^2\ V{\cdot}m^{-1}$	$495{\cdot}10^2$ (500, $50{\cdot}10^{-6}$, 9 sets ×10 pulses, NA, 4)	NR	NA	60	[31]
Brain gray matter (Healthy)	$\sigma(E, T) = \sigma_{init}{\cdot}(1 + flc2hs(E - E_{alt}, E_{range}) + \xi{\cdot}(T - T_{init}))$	1039	3680	0.565	10437	36.8 (V_P = 1000 V)	NA	NA	NA	NA	$\sigma_{init} = 0.30\ S{\cdot}m^{-1}$ (V_P = 1000V) $\xi = 0.032\ °C^{-1}$ $E_{alt} = 580{\cdot}10^2\ V{\cdot}m^{-1}$ $E_{range} = \pm120{\cdot}10^2\ V{\cdot}m^{-1}$	$510{\cdot}10^2$ (1000, $50{\cdot}10^{-6}$, 9 sets ×10 pulses, NA, 4)	NR	NA	60	[31]
Brain gray matter (Healthy)	$\sigma = \sigma_{init}$	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	$\sigma_{init} = 0.285\ S{\cdot}m^{-1}$	$800{\cdot}10^2$ (NR, $50{\cdot}10^{-6}$, 80, NA, 1)	NR	NR	NR	[57]
Brain gray matter (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}){\cdot}exp(-a_1{\cdot}exp(-a_2{\cdot}E))$	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	$\sigma_{init} = 0.285\ S{\cdot}m^{-1}$ $\sigma_{max} = 0.7791\ S{\cdot}m^{-1}$ $a_1 = 3.053$ $a_2 = 0.00233\ m{\cdot}V^{-1}$	$800{\cdot}10^2$ (NR, $50{\cdot}10^{-6}$, 80, NA, 1)	NR	NR	NR	[57]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Brain gray matter (Healthy)	σ_{init} = 0.285 $S\cdot m^{-1}$ σ_{max} = 0.7359 $S\cdot m^{-1}$	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NC	NR	NR	NR	[69]
Brain gray matter (Healthy)	$\sigma(E, T) = \sigma_{init}\cdot(1 + 2\cdot flc2hs(E - E_{alt}, E_{range}) + \xi\cdot(T - T_{init}))$	1039	3680	0.565	10437	37	NA	NA	NR	NR	ξ = 0.032 $°C^{-1}$ σ_{init} = 0.285 $S\cdot m^{-1}$ E_{alt} = $580\cdot10^2$ $V\cdot m^{-1}$ E_{range} = $\pm120\cdot10^2$ $V\cdot m^{-1}$}	$745\cdot10^2$ (450, $100\cdot10^{-6}$, 80, NA, 1)	NR	NR	NR	[73]
Brain white matter (Healthy)	$\sigma(E, T) = \sigma_{init}\cdot(1 + 2\cdot flc2hs(E - E_{alt}, E_{range}) + \xi\cdot(T - T_{init}))$	1039	3680	0.565	10437	37	NA	NA	$2.984\cdot10^{80}$	$5.064\cdot10^5$	σ_{init} = 0.256 $S\cdot m^{-1}$ σ_{max} = 0.767 $S\cdot m^{-1}$ ξ = 0.032 $°C^{-1}$ E_{alt} = NR E_{range} = NR	$500\cdot10^2$ (NR, NR, NR, NR, NR)	50 (Instantaneous) 43 (Long period)	0.53	NR	[40]
Brain white matter (Healthy)	$\sigma(T) = \sigma_{init}\cdot(1 + \xi\cdot(T - T_{init}))$	1039	3680	0.565	10437	37	NA	NA	$2.984\cdot10^{80}$	$5.064\cdot10^5$	σ_{init} = 0.256 $S\cdot m^{-1}$ σ_{max} = 0.767 $S\cdot m^{-1}$ ξ = 0.032 $°C^{-1}$ E_{alt} = NR E_{range} = NR	$500\cdot10^2$ (NR, NR, NR, NR, NR)	50 (Instantaneous) 43 (Long period)	0.53	NR	[40]
Brain white matter (Healthy)	σ_{init} = 0.3621 $S\cdot m^{-1}$ σ_{max} = 0.7357 $S\cdot m^{-1}$	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NC	NR	NR	NR	[69]
Breast (Cancerous)	2.31	1186	2926	0.48	NR	37.08	NA	NA	NR	NR	NA	$1000\cdot10^2$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Breast (Cancerous)	[0.025, 0.25]	1044	3700	0.564	65400	37	NR	NR	NR	NR	$w_b\cdot c_b$ = 48000 $W\cdot m^{-3}\cdot °C^{-1}$	$1000\cdot10^2$ (NR, $100\cdot10^{-6}$, 80, NA, 1)	50 – 60	NR	90	[29]
Breast (Cancerous)	0.25	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	$1000\cdot10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[35]
Breast (Healthy)	[0.25, 0.025]	928	3550	0.499	700	37	NR	NR	NR	NR	$w_b\cdot c_b$ = 2400 $W\cdot m^{-3}\cdot °C^{-1}$	$1000\cdot10^2$ (NR, $100\cdot10^{-6}$, 80, NA, 1)	50 - 60	NR	90	[29]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Breast fatty peripheral tissue (Healthy)	0.02	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	NR	NR	NR	NR	[35]
Breast fatty tissue (Healthy)	0.024	900	2522	0.25	NR	37.08	NA	NA	$4.43\cdot 10^{16}$	$1.29\cdot 10^5$	NA	$1000\cdot 10^2$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Breast gland (Healthy)	0.52	1030	3492	0.41	NR	37.08	NA	NA	NR	NR	NA	$1000\cdot 10^2$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Breast myoepithelial cell (Healthy)	$1\cdot 10^{-7}$	NR	NR	NR	NR	37.08	NA	NA	NR	NR	NA	$1000\cdot 10^2$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Cervix (Cancerous)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init})\cdot \exp(-a_1\cdot \exp(-a_2\cdot E))$	NR	NR	NR	NR	NR	NR	NR	NR	NR	$\sigma_{init} = 0.22973\ S\cdot m^{-1}$ $\sigma_{max} = 0.64324\ S\cdot m^{-1}$ $a_1 = -5\cdot 10^{-6}\cdot t_P^2 + 0.004\cdot t_P + 2.803$ $a_2 = -7\cdot 10^{-9}\cdot t_P^2 + 5\cdot 10^{-6} t_P + 0.002\ m\cdot V^{-1}$	$600\cdot 10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[78]
Cervix (Healthy)	0.2033	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[78]
Colon (Healthy)	0.01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[67]
Connective tissue	0.03	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	NR	NR	NR	[45]
Electrode	$6\cdot 10^7$	NR	NR	100	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[34]
Electrode	NR	7900	500	15	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[53]
Electrode	$\sigma(T) = 1.73913\cdot 10^6\cdot (1 + 0.00094\cdot (T - 20))$	8000	500	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[60]
Electrode	$4.03\cdot 10^6$	7850	475	44.5	NA	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	[61]
Electrode	$1\cdot 10^6$	6000	500	15	NR	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[62]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Electrode	$2.22\cdot 10^6$	7900	500	15	NA	NR	NA	NA	NR	NR	NA	NA	NR	NR	NR	[70]
Electrode	$1\cdot 10^5$	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	[71]
Electrode (Aluminum)	$3.774\cdot 10^7$	2700	910	250	NA	37	NA	NR	NR	NR	NA	NA	NA	NA	NA	[58]
Electrode (Copper)	$5.998\cdot 10^7$	8700	385	400	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[36]
Electrode (Copper)	$5.998\cdot 10^7$	8700	385	400	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[41]
Electrode (Copper)	$5.88\cdot 10^7$	8940	380	380	NA	NR	NA	NA	NA	NA	NA	NA	NR	NR	NR	[55]
Electrode (Copper)	$5.998\cdot 10^7$	8700	385	400	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[66]
Electrode (Endovascular)	$4.032\cdot 10^6$	NR	100	NR	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[41]
Electrode (Silver)	$6.273\cdot 10^7$	10500	234	429	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[66]
Electrode (Stainless steel)	2222222	7900	477	14	NA	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	[25]
Electrode (Stainless steel)	$2.22\cdot 10^6$	7900	500	15	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[40]
Electrode (Stainless steel)	$2.22\cdot 10^6$	7900	477	14	NA	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	[43]
Electrode (Stainless steel)	$1.44\cdot 10^6$	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NA	NTA	NTA	NTA	[47]
Electrode (Stainless steel)	$2\cdot 10^6$	NR	NR	NR	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[68]
Electrode (Stainless steel)	$2.22\cdot 10^6$	NR	477	14.9	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[73]
Electrode (Stainless steel)	$7.4\cdot 10^6$	8000	480	15	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[76]
Electrode (Stainless steel)	$2.22\cdot 10^6$	7900	500	15	NA	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	[80]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S{\cdot}m^{-1}$]	[$kg{\cdot}m^{-3}$]	[$J{\cdot}kg^{-1}{\cdot}°C^{-1}$]	[$W{\cdot}m^{-1}{\cdot}°C^{-1}$]	[$W{\cdot}m^{-3}$]	[°C]	[$kg{\cdot}m^{-3}{\cdot}s^{-1}$]	[°C]	[s^{-1}]	[$J{\cdot}mol^{-1}$]		[$V{\cdot}m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Electrode insulation	$1{\cdot}10^{-5}$	800	3400	0.01	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[31]
Electrode insulation	$1{\cdot}10^{-5}$	800	3400	0.01	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[40]
Electrode insulation	NR	800	3400	0.01	NA	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[53]
Electrode insulation	$1{\cdot}10^{-5}$	800	3400	0.01	NA	NR	NA	NA	NR	NR	NA	NA	NR	NR	NR	[70]
Electrode insulation	$1{\cdot}10^{-5}$	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	[71]
Electrode insulation	$1{\cdot}10^{-12}$	2329	700	NC	NA	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	[80]
Eye (Cancerous)	{0.08305, 0.1661, 0.3322, 0.4983, 0.6644}	1030	3000	0.4	NA	36.5	NA	NA	NR	NR	NA	NR	NR	NR	NR	[44]
Eye aqueous (Healthy)	1.5	1010	3997	0.58	NA	[34.25, 35.32]	NA	NA	NR	NR	NA	NR	NR	NR	NR	[44]
Eye cornea (Healthy)	0.427	1076	4178	0.58	NA	34.25	NA	NA	NR	NR	NA	NR	NR	NR	NR	[44]
Eye lens (Healthy)	0.3322	1100	3000	0.4	NA	[35.32, 36]	NA	NA	NR	NR	NA	NR	NR	NR	NR	[44]
Eye retina (Healthy)	0.5075	1039	3000	0.5	NA	36.7	NA	37	NR	NR	NA	NR	NR	NR	NR	[44]
Eye sclera (Healthy)	0.5075	1100	3180	1.0042	NA	36.7	NA	37	NR	NR	NA	NR	NR	NR	NR	[44]
Eye vitreous (Healthy)	1.5	1000	4178	0.603	NA	[36, 36.5]	NA	NA	NR	NR	NA	NR	NR	NR	NR	[44]
Fat	0.012	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	[45]
Fat	0.012	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	[67]
FR4	0.004	1900	1369	0.3	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[36]
FR4	0.004	1900	1369	0.3	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	[41]
In vitro - PBS including THP-1 cells	1.4	1000	4200	NA	NA	NR	NA	NA	$1.19{\cdot}10^{35}$	$2.318{\cdot}10^{5}$	$\alpha = 1.34{\cdot}10^{-7}$ $m^2{\cdot}s^{-1}$	NA	NA	0.53	NA	[30]
In vitro CHO-K1 cell line in potassium phosphate	$\sigma(T) = 0.162{\cdot}(1 + 0.02{\cdot}(T - 20))$	1000	4200	0.58	NA	20	NA	NA	NR	NR	NA	NR	42	NR	NR	[60]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
electroporation buffer																
In vitro Fibroblasts cultured in agarose gel	1.82	NR	NR	NR	NR	NR	NA	NA	NR	NR	NA	$803.21\cdot 10^2$ (NA, NA, NA, NA, NA)	53.3	NR	NR	[75]
In vitro Glioblastoma cells (U251 malignant glioma cells) in 3D collagen scaffolds	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NA	$698\cdot 10^2$ {1mM NaCl, (450, $100\cdot 10^{-6}$, 80, NA, 1)} $745\cdot 10^2$ {5mM NaCl, (450, $100\cdot 10^{-6}$, 80, NA, 1)}	NR	NR	NR	[73]
In vitro Hydrogel including Glioblastoma multiform	1.2	997.8	4181.8	0.6	NA	20	NA	NA	NR	NR	NA	$428\cdot 10^2$ (450, $100\cdot 10^{-6}$, 50, NA, 1)	NR	NR	NR	[61]
In vitro Pancreatic tumor cell suspension + Collagen I hydrogels	$\sigma(T) = \sigma_{init} (1 + \xi\cdot(T - T_{init}))$	997.8	4181.8	0.6	NA	22	NA	NA	NR	NR	$\xi = 0.02$ $°C^{-1}$ $\sigma_{init} = 1.2$ $S\cdot m^{-1}$	$500\cdot 10^2$ ({300,450}, $100\cdot 10^{-6}$, 80, NA, 1)	45	NR	NR	[43]
In vitro Phantom including NIH3T-3 cell line	1.82	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	$1250\cdot 10^2$ (Assumption)	NTA	NTA	NTA	[47]
Kidney (Healthy)	$\sigma = \sigma_{init}$	1080	3890	0.547	23889	37	NR	NR	NR	NR	$\sigma_{init} = 0.15$ $S\cdot m^{-1}$ $w_b\cdot c_b = 43062$ $W\cdot m^{-3}\cdot °C^{-1}$	$500\cdot 10^2$ (NR, NR, NR, NR, NR)	43 (For prolonged exposures) 50 (Transition point for rapid thermal damage)	NR	NR	[45]
Kidney (Healthy)	$\sigma(T) = \sigma_{init}\cdot(1+\xi\cdot(T-T_{init}))$	1080	3890	0.547	23889	37	NR	NR	NR	NR	$\sigma_{init} = 0.15$ $S\cdot m^{-1}$ $\xi = 0.017$ $°C^{-1}$	$500\cdot 10^2$ (NR, NR, NR, NR, NR)	43 (For prolonged exposures) 50	NR	NR	[45]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
											$w_b \cdot c_b$ = 43062 $W \cdot m^{-3} \cdot °C^{-1}$		(Transition point for rapid thermal damage)			
Kidney (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot \exp(-a_1 \cdot \exp(-a_2 \cdot E))$	1080	3890	0.547	23889	37	NR	NR	NR	NR	σ_{init} = 0.15 $S \cdot m^{-1}$ $w_b \cdot c_b$ = 43062 $W \cdot m^{-3} \cdot °C^{-1}$ $a_1 = -5 \cdot 10^{-6} \cdot (t \cdot 1 \cdot 10^{-6})^2 + 0.004 \cdot (t \cdot 1 \cdot 10^{-6}) + 2.803$ $a_2 = -7 \cdot 10^{-9} \cdot (t \cdot 1 \cdot 10^{-6})^2 + 5 \cdot 10^{-6} \cdot (t \cdot 1 \cdot 10^{-6}) + 0.002$ $m \cdot V^{-1}$	$500 \cdot 10^2$ (NR, NR, NR, NR, NR)	43 (For prolonged exposures) 50 (Transition point for rapid thermal damage)	NR	NR	[45]
Kidney (Healthy)	$\sigma(E,T) = (\sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot \exp(a_1 \cdot \exp(a_2 \cdot E))) \cdot (1 + \xi \cdot (T - T_{init}))$	1080	3890	0.547	23889	37	NR	NR	NR	NR	σ_{init} = 0.15 $S \cdot m^{-1}$ ξ = 0.017 $°C^{-1}$ $w_b \cdot c_b$ = 43062 $W \cdot m^{-3} \cdot °C^{-1}$ $a_1 = -5 \cdot 10^{-6} \cdot (t \cdot 1 \cdot 10^{-6})^2 + 0.004 \cdot (t \cdot 1 \cdot 10^{-6}) + 2.803$ $a_2 = -7 \cdot 10^{-9} \cdot (t \cdot 1 \cdot 10^{-6})^2 + 5 \cdot 10^{-6} \cdot (t \cdot 1 \cdot 10^{-6}) + 0.002$	$500 \cdot 10^2$ (NR, NR, NR, NR, NR)	43 (For prolonged exposures) 50 (Transition point for rapid thermal damage)	NR	NR	[45]
Kidney (Healthy)	$\sigma = \sigma_{init}$	NR	NR	NR	NR	NR	NR	NR	NR	NR	σ_{init} = 0.353 $S \cdot m^{-1}$	$501 \cdot 10^2$ ({1250, 1750, 2250}, $100 \cdot 10^{-6}$, 100, NA, 1)	NR	NR	NR	[63]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	$CEM43°C_{(th)}$	Ref
	[$S·m^{-1}$]	[$kg·m^{-3}$]	[$J·kg^{-1}·°C^{-1}$]	[$W·m^{-1}·°C^{-1}$]	[$W·m^{-3}$]	[°C]	[$kg·m^{-3}·s^{-1}$]	[°C]	[s^{-1}]	[$J·mol^{-1}$]		[$V·m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Kidney (Healthy)	$\sigma(E) = (\sigma_{max} - \sigma_{init})·(E - a_1)/(a_2 - a_1) + \sigma_{init}$	NR	NR	NR	NR	NR	NR	NR	NR	NR	σ_{init} = 0.353 $S·m^{-1}$ σ_{max} = 1.195 $S·m^{-1}$ a_1 = $200·10^2$ $V·m^{-1}$ a_2 = $2000·10^2$ $V·m^{-1}$	$638·10^2$ ({1250, 1750, 2250}, $100·10^{-6}$, 100, NA, 1)	NR	NR	NR	[63]
Kidney (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init})·\exp(a_3·\exp(a_4·E))$	NR	NR	NR	NR	NR	NR	NR	NR	NR	σ_{init} = 0.353 $S·m^{-1}$ σ_{max} = 0.988 $S·m^{-1}$ a_3 = -3.053 a_4 = -0.00233·10^{-2} $m·V^{-1}$	$575·10^2$ ({1250, 1750, 2250}, $100·10^{-6}$, 100, NA, 1)	NR	NR	NR	[63]
Kidney (Healthy)	1	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	$600·10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[65]
Liver (Cancerous)	0.411	1050	3600	0.512	33800	37	1	37	NR	NR	NA	$680·10^2$ (3000, $100·10^{-6}$, 8, 1, NA)	{43, 50} (NR)	NR	NR	[39]
Liver (Cancerous)	$\sigma_{pulse1}(t) = S_t(t) + \sigma_{init}$ $\sigma_{off} = \max(\sigma_{init}, \sigma_{pulse1}(t_{P1})·(0.64 - 0.017·\ln(t - t_{P1})))$ $\sigma_{pulse2}(t) = \min(\sigma_{max}, S_t(t) + \sigma_{off})$	NR	NR	NR	NR	NTA	NR	NTA	NR	NR	σ_{init} = 0.135 $S·m^{-1}$ σ_{max} = 0.426 $S·m^{-1}$ t_{P1} = $25·10^{-6}$ s t_{P2} = $100·10^{-6}$ s $S_t(t)$ = $0.291·\exp(-\exp(-0.0012·(E(t) - 1500)))$	$700·10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[46]
Liver (Cancerous)	NR	1079	3540	0.52	10740	37	NA	NA	$2.984·10^{80}$	$5.06·10^5$	$\dot{R}$ = 8.314 $J·mol^{-1}·K^{-1}$ ξ = 0.015 $°C^{-1}$ σ_{init} = 0.4 $S·m^{-1}$	$800·10^2$ (NR, NR, NR, NR, NR)	50 (NR)	1	NR	[62]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
											σ_{max} = 1.6 $S \cdot m^{-1}$					
Liver (Cancerous)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot 1/(1 + \exp(-(E - a_2)/a_3))$	NR	NR	NR	NR	NR	NR	NR	NR	NR	σ_{init} = 0.2 $S \cdot m^{-1}$ σ_{max} = 0.5 $S \cdot m^{-1}$ a_2 = $950 \cdot 10^2$ $V \cdot m^{-1}$ a_3 = $200 \cdot 10^2$ $V \cdot m^{-1}$	$700 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[71]
Liver (Cancerous)	$\sigma(E)=\sigma_{init} + (\sigma_{max} - \sigma_{init})1(E - a_1)$	NR	NR	NR	NR	NR	NR	NR	NR	NR	σ_{init} = 0.1 $S \cdot m^{-1}$ σ_{max} = 0.3 $S \cdot m^{-1}$ a_1 = $500 \cdot 10^2$ $V \cdot m^{-1}$	[$1500 \cdot 10^2$, $1700 \cdot 10^2$] (NR, $100 \cdot 10^{-6}$, 70, NA, ~1)	NR	NR	NR	[77]
Liver (Healthy)	0.286	1050	3600	0.512	33800	37	NA	NA	NR	NR	ξ = 0.015 $°C^{-1}$ (For σ) ξ = 0.0025 $°C^{-1}$ (For k)	$680 \cdot 10^2$ ({952,960}, $100 \cdot 10^{-6}$, 8, NA, 1Hz)	50 (Instantaneous) 42 (Several seconds to hours)	0.53	NA	[3]
Liver (Healthy)	0.05	1050	3600	NR	NR	37	NA	NA	NR	NR	NA	[$300 \cdot 10^2$, $500 \cdot 10^2$] (Assumption)	50 (Instantaneous)	NR	NR	[24]
Liver (Healthy)	$\sigma(E, T) = \sigma_{init} \cdot (1 + flc2hs(E - E_{alt}, E_{range}) + \xi \cdot (T - T_{init}))$	1050	3600	0.512	NR	21	NA	NA	NR	NR	σ_{init} = 0.067 $S \cdot m^{-1}$ σ_{max} = 0.241 $S \cdot m^{-1}$ E_{alt} = $580 \cdot 10^2$ $V \cdot m^{-1}$ E_{range} = $\pm 120 \cdot 10^2$ $V \cdot m^{-1}$ ξ = 0.015 C^{-1}	$423 \cdot 10^2$ (1500, $100 \cdot 10^{-6}$, 99, NA, 4)	NR	NR	NR	[37]
Liver (Healthy)	0.125	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	$680 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[38]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Liver (Healthy)	0.075	1050	3600	0.512	33800	37	1	37	NR	NR	NA	NR	{43, 50} (NR)	NR	NR	[39]
Liver (Healthy)	$\sigma_{pulse1}(t) = S(t) + \sigma_{init}$ $\sigma_{off} = \max(\sigma_{init}, \sigma_{pulse1}(t_{P1})\cdot(0.28 - 0.03\cdot\ln(t - t_{P1})))$ $\sigma_{pulse2}(t) = \min(\sigma_{max}, S(t) + \sigma_{off})$	NR	NR	NR	NR	NTA	NR	NTA	NR	NR	σ_{init} = 0.067 $S\cdot m^{-1}$ σ_{max} = 0.241 $S\cdot m^{-1}$ t_{P1} = $100\cdot 10^{-6}$ s t_{P2} = $100\cdot 10^{-6}$ s $S(t) = (\sigma_{max} - \sigma_{init})/(1 + 10\cdot\exp(-1\cdot 10^{2}\cdot(E(t) - a_1)/a_2))$	$700\cdot 10^{2}$ (NR, NR, NR, NR, NR)	NR	NR	NR	[46]
Liver (Healthy)	0.286	1050	3600	0.512	NR	37.2	NA	NA	NR	NR	h = 10 W m^{-2} $°C^{-1}$ T_{env} = 25 °C	$213\cdot 10^{2}$ (500, $50\cdot 10^{-6}$, 200, NA, 1)	50 (for at least 3 minutes)	NR	NR	[48]
Liver (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init})/(1 + a_1\cdot\exp(-(E-a_2)/a_3))$ $a_2 = (E_{IRE(th)} + E_{RE(th)})/2$ $a_3 = (E_{IRE(th)} - E_{RE(th)})/a_4$	1060	3600	0.502	NA	NR	NA	NA	$7.39\cdot 10^{39}$	$2.577\cdot 10^{5}$	$\dot{R}$ = 8.314 $J\cdot mol^{-1}\cdot K^{-1}$ a_1 = 10 a_4 = 8 $E_{RE(th)}$ = $460\cdot 10^{2}$ $V\cdot m^{-1}$ $E_{IRE(th)}$ = $700\cdot 10^{2}$ $V\cdot m^{-1}$ σ_{init} = 0.067 $S\cdot m^{-1}$ σ_{max} = 0.241 $S\cdot m^{-1}$	$700\cdot 10^{2}$ (NR, $100\cdot 10^{-6}$, 8, NA, 1)	42 (Extended exposure) 73.4 (Instantaneous)	4.6 (99% probability of cell death)	NA	[53]
Liver (Healthy)	NR	1079	3540	0.52	10740	37	NA	NA	$2.984\cdot 10^{80}$	$5.06\cdot 10^{5}$	$\dot{R}$ = 8.314 $J\cdot mol^{-1}\cdot K^{-1}$ ξ = 0.015 $°C^{-1}$ σ_{init} = 0.091 $S\cdot m^{-1}$ σ_{max} = 0.45 $S\cdot m^{-1}$	$700\cdot 10^{2}$ (NR, NR, NR, NR, NR)	50 (NR)	1	NR	[62]
Liver (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init})\cdot 1/(1 + \exp(-(E - a_2)/a_3))$	NR	NR	NR	NR	NR	NR	NR	NR	NR	σ_{init} = 0.05 $S\cdot m^{-1}$ σ_{max} = 0.3 $S\cdot m^{-1}$	$700\cdot 10^{2}$ (NR, NR, NR, NR, NR)	NR	NR	NR	[71]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
											$a_2 = 950\cdot10^2$ $V\cdot m^{-1}$ $a_3 = 200\cdot10^2$ $V\cdot m^{-1}$					
Liver (Healthy)	0.124	NR	NR	NR	NR	NTA	NR	NTA	NR	NR	NA	NR	NR	NR	NR	[72]
Liver (Healthy)	0.047666	NR	NR	NR	NR	NA	NR	NA	NR	NR	$\varepsilon_r = 42672$	NR	NR	NR	NR	[74]
Liver (Healthy)	$\sigma(E, T) = (\sigma_{init} + (\sigma_{max} - \sigma_{init})/(1 + 10\cdot exp(-(E - 58\cdot10^3)/3\cdot10^3)))\cdot 1.02^{(T - 37)}$	1080	3455	0.502	0	37	NA	NA	NR	NR	$\sigma_{init} = 0.08$ $S\cdot m^{-1}$ $\sigma_{max} = 0.31$ $S\cdot m^{-1}$	$500\cdot10^2$ (NR, $100\cdot10^{-6}$, 100, NA, 1)	NR	NR	340	[76]
Liver (Healthy)	$\sigma(E)=\sigma_{init} + (\sigma_{max} - \sigma_{init})\mathbb{1}(E - a_1)$	NR	NR	NR	NR	NR	NR	NR	NR	NR	$\sigma_{init} = 0.1$ $S\cdot m^{-1}$ $\sigma_{max} = 0.3$ $S\cdot m^{-1}$ $a_1 = 500\cdot10^2$ $V\cdot m^{-1}$	[$1500\cdot10^2$, $1700\cdot10^2$] (NR, $100\cdot10^{-6}$, 70, NA, ~1)	NR	NR	NR	[77]
Liver (Healthy)	$\sigma(E) = \sigma_{init}\cdot(1 + 0.5\cdot a_1(1+tanh((E - E_{RE(th)})/E_{RE(th)})))$	NR	NR	NR	NR	NR	NR	NR	NR	NR	$\sigma_{init} = 0.12$ $S\cdot m^{-1}$ $a_1 = 3$ $E_{RE(th)} = 300\cdot10^2$ $V\cdot m^{-1}$	$650\cdot10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[79]
Liver (Healthy)	$\sigma(E, T) = (\sigma_{init} + (\sigma_{max} - \sigma_{init})/(1 + a_1\cdot exp((-E - a_2)/a_3)))\cdot(1 + \xi\cdot(T - T_{init})$	1079	3540	0.52	NR	26	NR	NR	$7.39\cdot10^{39}$	$2.577\cdot10^5$	$\xi = 0.02$ $°C^{-1}$ $\omega_b = \{1.43\cdot10^{-3}$ s^{-1}, $3.575\cdot10^{-3}$ s^{-1}, $7.15\cdot10^{-3}$ $s^{-1}\}$ $a_1 = 10$, $a_2 = (E_{RE(th)} + E_{IRE(th)})/2$, $a_3 = (E_{IRE(th)} - E_{RE(th)})/2$, $E_{RE(th)} = 460\cdot10^2$ $V\cdot m^{-1}$	$700\cdot10^2$ (NR, NR, NR, NR, NR)	70	NR	NR	[80]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
											$E_{IRE(th)} = 700 \cdot 10^2$ $V \cdot m^{-1}$ $\sigma_{init} = 0.12$ $S \cdot m^{-1}$ $\sigma_{max} = 0.42$ $S \cdot m^{-1}$					
Liver (Healthy, Parenchymal)	{$\sigma = 0.02$ $S \cdot m^{-1}$ | $E = 0$ $V \cdot m^{-1}$} {$\sigma = 0.13$ $S \cdot m^{-1}$ | $E \neq 0$ $V \cdot m^{-1}$}	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NR	NTA	NTA	NTA	[54]
Muscle (Healthy)	0.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[67]
Muscle (Healthy, Anisotropic circumferential)	$\sigma(E) = \sigma_{init} \cdot (1 + \Lambda \cdot 2 \cdot flc2hs(E - E_{alt}, E_{range}))$	1000	3750	0.5	NA	37	NA	NA	$1.552 \cdot 10^{67}$	$4.3 \cdot 10^5$	$\sigma_{init} = 0.75$ $S \cdot m^{-1}$ $\Lambda = 2.5$ $E_{alt} = 500 \cdot 10^2$ $V \cdot m^{-1}$ $E_{range} = 300 \cdot 10^2$ $V \cdot m^{-1}$	$500 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	0.53	NR	[59]
Muscle (Healthy, Anisotropic longitudinal)	$\sigma(E) = \sigma_{init} \cdot (1 + \Lambda \cdot 2 \cdot flc2hs(E - E_{alt}, E_{range}))$	1000	3750	0.5	NA	37	NA	NA	$1.552 \cdot 10^{67}$	$4.3 \cdot 10^5$	$\sigma_{init} = 0.135$ $S \cdot m^{-1}$ $\Lambda = 2.5$ $E_{alt} = 500 \cdot 10^2$ $V \cdot m^{-1}$ $E_{range} = 300 \cdot 10^2$ $V \cdot m^{-1}$	$500 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	0.53	NR	[59]
Muscle (Healthy, Anisotropic parallel)	0.8	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	NR	NR	NR	NR	[35]
Muscle (Healthy, Anisotropic perpendicular)	0.055	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	NR	NR	NR	NR	[35]
ND tissue	0.2	1000	4000	0.5	NA	37	0	37	NA	NA	NA	NR	NR	NA	NA	[27]
ND tissue	0.2	1000	4200	NA	NA	NR	NA	NA	$1.19 \cdot 10^{35}$	$2.318 \cdot 10^5$	$\alpha = 1.34 \cdot 10^{-7}$ $m^2 \cdot s^{-1}$	NA	NA	0.53	NA	[30]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
ND tissue	NA	NA	NA	NA	NA	NA	NA	NA	$1.98 \cdot 10^{106}$	$6.67 \cdot 10^5$	NA	NA	NA	NA	NA	[40]
ND tissue	NA	NA	NA	NA	NA	NA	NA	NA	$7.39 \cdot 10^{37}$	$2.577 \cdot 10^5$	NA	NA	NA	NA	NA	[40]
ND tissue (Healthy)	$\sigma(E) = (\sigma_{max} - \sigma_{init}) \cdot E/(E_{IRE(th)} - E_{RE(th)}) + \sigma_{init}$	1050	3600	0.51	420	37	4.664	37	NR	NR	$\sigma_{init} = 0.1$ $S \cdot m^{-1}$ $\sigma_{max} = 0.4$ $S \cdot m^{-1}$ $E_{RE(th)} = 200 \cdot 10^2$ $V \cdot m^{-1}$ $E_{IRE(th)} = 800 \cdot 10^2$ $V \cdot m^{-1}$	$800 \cdot 10^2$ (NR, NR, NR, NR, NR)	50	NR	NR	[42]
ND tissue (Healthy)	0.286	1050	3600	0.25	NA	NR	NA	NA	NR	NR	NA	$1000 \cdot 10^2$ (Assumption)	NR	NR	NR	[55]
ND tissue 1	0.2	1050	3600	0.5	NR	37	NR	NR	NR	NR	NA	$800 \cdot 10^2$ (Assumption)	50 (Instantaneous) 42 (Long period of exposure)	NR	NR	[26]
ND tissue 1	$\sigma(E) = 1.25 \cdot (\sigma_{init} + (\sigma_{max} - \sigma_{init})/(1 + a_1 \cdot \exp(-(E - a_2)/a_3)))$ $a_2 = (E_{IRE(th)} + E_{RE(th)})/2$ $a_3 = (E_{IRE(th)} - E_{RE(th)})/a_4$	1060	3600	0.502	NA	NR	NA	NA	$7.39 \cdot 10^{39}$	$2.577 \cdot 10^5$	$\dot{R} = 8.314$ $J \cdot mol^{-1} \cdot K^{-1}$ $a_1 = 10$ $a_4 = 8$ $E_{RE(th)} = 460 \cdot 10^2$ $V \cdot m^{-1}$ $E_{IRE(th)} = 700 \cdot 10^2$ $V \cdot m^{-1}$ $\sigma_{init} = 0.067$ $S \cdot m^{-1}$ $\sigma_{max} = 0.241$ $S \cdot m^{-1}$	$700 \cdot 10^2$ (NR, $100 \cdot 10^{-6}$, 8, NA, 1)	42 (Extended exposure) 73.4 (Instantaneous)	4.6 (99% probability of cell death)	NA	[53]
ND tissue 2	0.04	NA	NA	NA	NA	NA	NA	NA	NR	NR	NA	$800 \cdot 10^2$ (Assumption)	50 (Instantaneous) 42 (Long period of exposure)	NR	NR	[26]
ND tissue 2	$\sigma(E) = 1.5 \cdot (\sigma_{init} + (\sigma_{max} - \sigma_{init})/(1 + a_1 \cdot \exp(-(E - a_2)/a_3)))$	1060	3600	0.502	NA	NR	NA	NA	$7.39 \cdot 10^{39}$	$2.577 \cdot 10^5$	$\dot{R} = 8.314$ $J \cdot mol^{-1} \cdot K^{-1}$ $a_1 = 10$	$700 \cdot 10^2$ (NR, $100 \cdot 10^{-6}$, 8, NA, 1)	42 (Extended exposure)	4.6 (99% probabi	NA	[53]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
	$a_2 = (E_{IRE(th)} + E_{RE(th)})/2$ $a_3 = (E_{IRE(th)} - E_{RE(th)})/a_4$										$a_4 = 8$ $E_{RE(th)} = 460 \cdot 10^2$ $V \cdot m^{-1}$ $E_{IRE(th)} = 700 \cdot 10^2$ $V \cdot m^{-1}$ $\sigma_{init} = 0.067$ $S \cdot m^{-1}$ $\sigma_{max} = 0.241$ $S \cdot m^{-1}$		73.4 (Instantaneous)	lity of cell death)		
ND tissue 3	1	NA	NA	NA	NA	NA	NA	NA	NR	NR	NA	$800 \cdot 10^2$ (Assumption)	50 (Instantaneous) 42 (Long period of exposure)	NR	NR	[26]
ND tissue 3	$\sigma(E) = 1.75 \cdot (\sigma_{init} + (\sigma_{max} - \sigma_{init})/(1 + a_1 \cdot exp(-(E - a_2)/a_3)))$ $a_2 = (E_{IRE(th)} + E_{RE(th)})/2$ $a_3 = (E_{IRE(th)} - E_{RE(th)})/a_4$	1060	3600	0.502	NA	NR	NA	NA	$7.39 \cdot 10^{39}$	$2.577 \cdot 10^5$	$\dot{R} = 8.314$ $J \cdot mol^{-1} \cdot K^{-1}$ $a_1 = 10$ $a_4 = 8$ $E_{RE(th)} = 460 \cdot 10^2$ $V \cdot m^{-1}$ $E_{IRE(th)} = 700 \cdot 10^2$ $V \cdot m^{-1}$ $\sigma_{init} = 0.067$ $S \cdot m^{-1}$ $\sigma_{max} = 0.241$ $S \cdot m^{-1}$	$700 \cdot 10^2$ (NR, $100 \cdot 10^{-6}$, 8, NA, 1)	42 (Extended exposure) 73.4 (Instantaneous)	4.6 (99% probability of cell death)	NA	[53]
Nerve - Myelin (Healthy)	$3.45 \cdot 10^{-6}$	1043	3600	0.5	NR	37.08	NA	NA	NR	NR	NA	$1000 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Nerve axon (Healthy)	1.44	1043	3600	0.5	NR	37.08	NA	NA	NR	NR	NA	$1000 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Nerve axon (Healthy)	1.44	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[67]
Pancreas (Cancerous)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot exp(-exp(a_6 \cdot (E - E_{IRE(th)})))$	1087	3164	0.51	12924.43	37	212	37	NR	NR	$\sigma_{init} = 0.341$ $S \cdot m^{-1}$ $\sigma_{max} = 0.95$ $S \cdot m^{-1}$ $a_6 = 0.2 \cdot 10^{-2}$ $m \cdot V^{-1}$	$500 \cdot 10^2$ (300, $90 \cdot 10^{-6}$, 100, NR, NR)	NR	NR	NR	[70]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
											$E_{IRE(th)} = 400 \cdot 10^2$ $V \cdot m^{-1}$					
Pancreas (Healthy)	0.5	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NR	$650 \cdot 10^2$ (NR, NR, NR, NR, NR)	NR	NR	NR	[52]
Pancreas (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot \exp(-\exp(a_6 \cdot (E - E_{IRE(th)})))$	1087	3164	0.51	12924.43	37	212	37	NR	NR	$\sigma_{init} = 0.341\ S \cdot m^{-1}$ $\sigma_{max} = 0.95\ S \cdot m^{-1}$ $a_6 = 0.2 \cdot 10^{-2}\ m \cdot V^{-1}$ $E_{IRE(th)} = 400 \cdot 10^2\ V \cdot m^{-1}$	NR	NR	NR	NR	[70]
Prostate (Cancerous)	NR	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	$\xi = [0.01, 0.03]\ °C^{-1}$	[$668 \cdot 10^2$, $893 \cdot 10^2$] (500, {$50 \cdot 10^{-6}$, $100 \cdot 10^{-6}$}, {10, 50, 99}, 10)	~43 °C (5 minutes)	0.53	NTA	[50]
Prostate (Cancerous)	0.3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	$700 \cdot 10^2$ {([1650, 2850], $90 \cdot 10^{-6}$, 70, NA, NR), Multiple electrode pairs)	NR	NR	NR	[67]
Prostate (Cancerous)	$\sigma = \sigma_{init}$	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	$422 \cdot 10^2$ {(NR, [$70 \cdot 10^{-6}$, $90 \cdot 10^{-6}$], 90, NA, NR), Static conductivity, Multiple electrode pairs }	NR	NR	NR	[68]
Prostate (Cancerous)	σ(E) (No values mentioned, Plotted in figure)	NR	NR	NR	NR	NR	NR	NR	NR	NR	$\sigma_{init} = 0.284\ S \cdot m^{-1}$ $\sigma_{max} = 0.72 \pm 0.15\ S \cdot m^{-1}$	$506 \cdot 10^2$ {(NR, [$70 \cdot 10^{-6}$, $90 \cdot 10^{-6}$], 90, NA, NR), Dynamic conductivity, Multiple electrode pairs }	NR	NR	NR	[68]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Prostate (Healthy)	0.42	1045	3600	0.56	NR	37.08	NA	NA	$3.12 \cdot 10^{20}$	$1.28 \cdot 10^{5}$	NA	$1000 \cdot 10^{2}$ (NR, NR, NR, NR, NR)	NR	1	NR	[28]
Prostate (Healthy)	0.42	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[32]
Prostate (Healthy)	$\sigma_{init} = 0.4113\ S \cdot m^{-1}$ $\sigma_{max} = 0.8712\ S \cdot m^{-1}$	1000	3600	0.5	NR	37	NR	NR	NR	NR	$w_b \cdot c_b = 40000\ W \cdot m^{-3} \cdot °C^{-1}$	NR	NR	NR	NR	[49]
Prostate (Healthy)	$\sigma(n_P) = \sigma_{init} \cdot 1.29 \cdot (1 + 0.36 \cdot (N_P - n_P)^{0.5})^{0.5}$	1000	3500	NA	NA	37	NA	37	NR	NR	$\sigma_{init} = 0.3\ S \cdot m^{-1}$ $\alpha \approx 0.13 \cdot 10^{-6}\ m^2 \cdot s^{-1}$ $r_{fit} = 0.85 \cdot 10^{-3}$ m $T_{fit} = 3.53$ °C (V_P = 1500V) $T_{fit} = 6.28$ °C (V_P = 2000V) $\tau = 1.4$ s	NR	NR	NR	NR	[64]
Prostate (Healthy)	0.41	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	$700 \cdot 10^{2}$ {([1650, 2850], $90 \cdot 10^{-6}$, 70, NA, NR), Multiple electrode pairs)	NR	NR	NR	[67]
Prostate (Healthy, Dog)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot exp(-a_1 \cdot exp(-a_2 \cdot E))$	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	$\sigma_{init} = 0.284\ S \cdot m^{-1}$ $\sigma_{max} = 0.65\ S \cdot m^{-1}$ $a_1 = 3.212$ $a_2 = 0.002543\ m \cdot V^{-1}$	$948 \cdot 10^{2}$ (1250, $100 \cdot 10^{-6}$, 100, NA, 1)	NR	NR	NR	[56]
Prostate (Healthy, Human)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init}) \cdot exp(-a_1 \cdot exp(-a_2 \cdot E))$	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	$\sigma_{init} = 0.284\ S \cdot m^{-1}$ $\sigma_{max} = 0.927\ S \cdot m^{-1}$ $a_1 = 3.212$ $a_2 = 0.002543\ m \cdot V^{-1}$	[$1085 \cdot 10^{2}$, $1185 \cdot 10^{2}$] ({1800, 2100, 2625}, $70 \cdot 10^{-6}$, 90, NA, CAR)	NR	NR	NR	[56]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S \cdot m^{-1}$]	[$kg \cdot m^{-3}$]	[$J \cdot kg^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-1} \cdot °C^{-1}$]	[$W \cdot m^{-3}$]	[°C]	[$kg \cdot m^{-3} \cdot s^{-1}$]	[°C]	[s^{-1}]	[$J \cdot mol^{-1}$]		[$V \cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
Rectum Perirectal tissue (Healthy)	0.3	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	{$275 \cdot 10^2$, $500 \cdot 10^2$} (NR, NR, NR, NR, NR)	NR	NR	NR	[51]
Rectum Rectal wall (Healthy)	0.6	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	NA	{$275 \cdot 10^2$, $500 \cdot 10^2$} (NR, NR, NR, NR, NR)	NR	NR	NR	[51]
Saline	{1, 2.5, 4.5, 8}	1000	4180	0.6	NA		NA	NA	NA	NA	h = 100 $W \cdot m^{-2} \cdot °C^{-1}$	NA	NA	NA	NA	[39]
Scar	0.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	[79]
Skin (Cancerous)	0.2	1000	4000	0.5	33800	37	NR	NR	NR	NR	NA	NR	NR	NR	>10	[25]
Skin collagen (Healthy)	NA	NA	NA	NA	NA	NA	NA	NA	$1.606 \cdot 10^{45}$	$0.306 \cdot 10^6$	Ř = 8.314 J mol^{-1} K^{-1}	NA	NR	NR	NR	[55]
Skin dermis (Healthy)	0.015	1116	3800	0.293	200	37	NR	NR	NR	NR	ω_b = $2.198 \cdot 10^{-3}$ s^{-1}	$900 \cdot 10^2$ (NR, $100 \cdot 10^{-6}$, 8, NA. 1)	42 (Several seconds to hours) 50-60	0.53 (Minimum degree burn) $10 \cdot 10^3$ (Third degree burn)	NR	[58]
Skin epidermis (Healthy)	NA	NA	NA	NA	NA	NA	NA	NA	$3.1 \cdot 10^{98}$	$0.627 \cdot 10^6$	Ř = 8.314 $J \cdot mol^{-1} \cdot K^{-1}$	NA	NR	NR	NR	[55]
Skin stratum corneum and epidermis (Healthy)	0.01001	1305	3600	0.2045	0	37	0	NR	NR	NR	NA	$900 \cdot 10^2$ (NR, $100 \cdot 10^{-6}$, 8, NA. 1)	42 (Several seconds to hours) 50-60	0.53 (Minimum degree burn) $10 \cdot 10^3$ (Third degree burn)	NR	[58]
Skin subcutaneous fat	0.02	850	2300	0.23	5	37	NR	NR	NR	NR	ω_b = $5.142 \cdot 10^{-4}$ s^{-1}	$900 \cdot 10^2$ (NR, $100 \cdot 10^{-6}$, 8, NA. 1)	42 (Several seconds to hours) 50-60	0.53 (Minimum degree burn) $10 \cdot 10^3$	NR	[58]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C $_{(th)}$	Ref
	[$S\cdot m^{-1}$]	[$kg\cdot m^{-3}$]	[$J\cdot kg^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-1}\cdot °C^{-1}$]	[$W\cdot m^{-3}$]	[°C]	[$kg\cdot m^{-3}\cdot s^{-1}$]	[°C]	[s^{-1}]	[$J\cdot mol^{-1}$]		[$V\cdot m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
														(Third degree burn)		
Skin subcutaneous tissue (Cancerous)	$\sigma(E) = (\sigma_{max} - \sigma_{init})\cdot E/(E_{IRE(th)} - E_{RE(th)}) + \sigma_{init}$	1050	3600	0.51	420	37	4.664	37	NR	NR	$\sigma_{init} = 0.2$ $S\cdot m^{-1}$ $\sigma_{max} = 0.8$ $S\cdot m^{-1}$ $E_{RE(th)} = 400\cdot10^2$ $V\cdot m^{-1}$ $E_{IRE(th)} = 900\cdot10^2$ $V\cdot m^{-1}$	$900\cdot10^2$ (NR, NR, NR, NR, NR)	50	NR	NR	[42]
Skin subcutaneous tissue (Cancerous)	0.4	1050	3700	0.75	42000	37	NR	NR	NR	NR	$\omega_b = 2\cdot10^{-3}$ s^{-1}	$900\cdot10^2$ (NR, $100\cdot10^{-6}$, 8, NA. 1)	42 (Several seconds to hours) 50-60	0.53 (Minimum degree burn) $10\cdot10^3$ (Third degree burn)	NR	[58]
Skin subcutaneous tissue (Healthy)	0.41	1040	3800	0.5	800	37	NR	NR	NR	NR	$\omega_b = 6.557\cdot10^{-4}$ s^{-1}	$900\cdot10^2$ (NR, $100\cdot10^{-6}$, 8, NA. 1)	42 (Several seconds to hours) 50-60	0.53 (Minimum degree burn) $10\cdot10^3$ (Third degree burn)	NR	[58]
Small intestine (Homogeneous)	0.61	1000	3750	0.5	NA	37	NA	NA	$1.552\cdot10^{67}$	$4.3\cdot10^5$	NA	$500\cdot10^2$ (NR, NR, NR, NR, NR)	NR	0.53	NR	[59]
Small intestine mucosa 2 (Healthy, Excluding villi)	$\sigma(E) = \sigma_{init}\cdot(1 + \Lambda\cdot 2\cdot flc2hs(E - E_{alt}, E_{range}))$	1000	3750	0.5	NA	37	NA	NA	$1.552\cdot10^{67}$	$4.3\cdot10^5$	$\sigma_{init} = \{0.1, 0.4, 0.8\}$ $S\cdot m^{-1}$ $\Lambda = 4$ $E_{alt} = 600\cdot10^2$ $V\cdot m^{-1}$	$600\cdot10^2$ (NR, NR, NR, NR, NR)	NR	0.53	NR	[59]

	Calculation of V and E	Calculation of T							Calculation of Ω			Ablation parameters				
Name	σ	ρ	c_p or c_b	k	Q_m	T_{init}	w_b	T_{art}	A	U_a	Additional Details/ Parameters	$E_{IRE(th)}$ ($V_{P(th)}$, $t_{P(th)}$, $N_{P(th)}$, $\tau_{P(th)}$, $f_{P(th)}$)	T_{th} (Exposure duration)	Ω_{th}	CEM43°C (th)	Ref
	[$S·m^{-1}$]	[$kg·m^{-3}$]	[$J·kg^{-1}·°C^{-1}$]	[$W·m^{-1}·°C^{-1}$]	[$W·m^{-3}$]	[°C]	[$kg·m^{-3}·s^{-1}$]	[°C]	[s^{-1}]	[$J·mol^{-1}$]		[$V·m^{-1}$] ([V], [s], [-], [s], [Hz])	[°C] ([s])		[min]	
											E_{range} = $150·10^2$ $V·m^{-1}$					
Small intestine mucosa 3 (Healthy, Including villi)	$\sigma(E) = \sigma_{init}·(1 + \Lambda·2·flc2hs(E - E_{alt}, E_{range}))$	1000	3750	0.5	NA	37	NA	NA	$1.552·10^{67}$	$4.3·10^5$	σ_{init} = {0.1, 0.4, 0.8} $S·m^{-1}$ $\Lambda = 4$ E_{alt} = $600·10^2$ $V·m^{-1}$ E_{range} = $150·10^2$ $V·m^{-1}$	$600·10^2$ (NR, NR, NR, NR, NR)	NR	0.53	NR	[59]
Small intestine submucosa 1 (Healthy)	$\sigma(E) = \sigma_{init}·(1 + \Lambda·2·flc2hs(E - E_{alt}, E_{range}))$	1000	3750	0.5	NA	37	NA	NA	$1.552·10^{67}$	$4.3·10^5$	σ_{init} = {0.1, 0.4, 0.8} $S·m^{-1}$ $\Lambda = 4$ E_{alt} = $600·10^2$ $V·m^{-1}$ E_{range} = $150·10^2$ $V·m^{-1}$	$600·10^2$ (NR, NR, NR, NR, NR)	NR	0.53	NR	[59]
Soft tissue (Healthy, Combination of muscle, fat and body fluids)	0.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	NR	NR	[71]
Urethra (Healthy)	$\sigma(E) = \sigma_{init} + (\sigma_{max} - \sigma_{init})·exp(-a_1·exp(-a_2·E))$	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NR	NR	σ_{init} = 0.203 $S·m^{-1}$ σ_{max} = 0.337 $S·m^{-1}$ $a_1 = 3.212$ a_2 = 0.002543 $m·V^{-1}$	NR	NR	NR	NR	[56]
Urine	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[64]
Well plate	$1·10^{-16}$	1050	1300	0.14	NA	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	[43]

Table A6.3

Table A6.3 Data about the electrode type, pulse parameters and BC at BEM used in the included studies. This table was arranged according to the reference number. The brackets "{ }" are defined as a set of elements, "[a, b]" is defined as the range between and including the values a and b assuming {a, b} ∈ ℝ, and "[a:c:b]" is defined as the range between and including the values a and b with step c assuming {a, b, c} ∈ ℝ. The following abbreviations are used: NR (Not reported), NA (Not applicable), NC (Not clear), NTA (No thermal analysis), and ND (Not defined).

Electrodes						Square pulse parameters					Boundary conditions (BC) applied to boundaries between electrodes and medium (BEM)		
Shape	Ø	L	Geometry	Number	d	V_P	t_P	N_P	τ_P	f_P	Type electrical BC at BEM	Type thermal BC at BEM	Ref.
	[m]	[m]			[m]	[V]	[s]		[s]	[Hz]			
Circle	$\{0.5\cdot10^{-3}, 1\cdot10^{-3}, 1.5\cdot10^{-3}\}$	NA	Lateral	{2, 4}	$\{5\cdot10^{-3}, 7.5\cdot10^{-3}, 10\cdot10^{-3}\}$	{888, 891, 928, 971, 1143, 1212, 1331, 1438, 1613, 1716}	$\{200\cdot10^{-6}, 400\cdot10^{-6}, 800\cdot10^{-6}\}$	1	NA	NA	Dirichlet ($\{V_P, 0\}$)	Neumann	[3]
Plate	$10\cdot10^{-3}$	NA	Lateral	2	$4\cdot10^{-3}$	400	$20000\cdot10^{-6}$	1	NA	NA	Dirichlet ($\{V_P, 0\}$)	Neumann	[24]
Plate	NR	NA	Lateral	2	$\{3\cdot10^{-3}, 4\cdot10^{-3}, 5\cdot10^{-3}\}$	{600, 1000}	$\{100\cdot10^{-6}, 800\cdot10^{-6}, 1000\cdot10^{-6}\}$	{1, 8, 64, 80}	NA	{0.03, 0.3, 1, 5000}	Dirichlet ($\{V_P, 0\}$)	Robin (h = 15 $W\cdot m^{-2}\cdot°C^{-1}$, T_{env} = 25 °C)	[25]
Circular plate	$\{2.5\cdot10^{-3}, 5\cdot10^{-3}, 10\cdot10^{-3}\}$	NR	Lateral	2	$4\cdot10^{-3}$	400	NA	NA	NA	NA	Dirichlet	NTA	[26]
Cylinder	$\{0.5\cdot10^{-3}, 1\cdot10^{-3}, 2\cdot10^{-3}\}$	$\{2.5\cdot10^{-3}, 5\cdot10^{-3}, 10\cdot10^{-3}, 20\cdot10^{-3}\}$	Lateral	2	$\{5\cdot10^{-3}, 7.5\cdot10^{-3}, 10\cdot10^{-3}, 17\cdot10^{-3}\}$	1000	$100\cdot10^{-6}$	1	NA	NA	Dirichlet	Neumann	[26]
Plate	∞	NA	Lateral	2	$10\cdot10^{-3}$	{500, 1000, 2000}	$\{8000\cdot10^{-6}, 25600\cdot10^{-6}, 104000\cdot10^{-6}\}$	1	NA	NA	Dirichlet ($\{V_P, 0\}$)	Neumann	[27]
Cylinder	$1\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	{500, 1000, 2000}	$\{510\cdot10^{-6}, 2110\cdot10^{-6}, 8960\cdot10^{-6}\}$	1	NA	NA	Dirichlet ($\{V_P, 0\}$)	Neumann	[27]
Sphere	$1\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	{500, 1000, 2000}	$\{51.6\cdot10^{-6}, 242\cdot10^{-6}, 864\cdot10^{-6}\}$	1	NA	NA	Dirichlet ($\{V_P, 0\}$)	Neumann	[27]
Cylinder	$1\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	2000	$100\cdot10^{-6}$	1	NA	NA	Dirichlet ($\{V_P, 0\}$)	Dirichlet (37 °C)	[28]
Needle	$1\cdot10^{-3}$	$8.75\cdot10^{-3}$	Lateral	2	$8\cdot10^{-3}$	{4200, 2950, 6850}	$100\cdot10^{-6}$	1	NA	NA	Dirichlet	Robin (h = 50 $W\ m^{-2}\ °C^{-1}$)	[29]
Plate	∞	∞	Lateral	2	$2\cdot10^{-3}$	$[1000\cdot10^{2}, 7500\cdot10^{2}]$	$[250\cdot10^{-6}, 7500\cdot10^{-6}]$	1	NA	NA	NA	Robin	[30]
Needle	$1\cdot10^{-3}$	$5\cdot10^{-3}$	Lateral	2	$5\cdot10^{-3}$	{500, 1000}	$50\cdot10^{-6}$	9 sets ×10 pulses (Sets were separated by 1s)	NA	4	Dirichlet ($\{V_P, 0\}$)	Continuous (h = 10 $W\cdot m^{-2}\cdot°C^{-1}$ with T_{env} = 23 °C)	[31]

Electrodes						Square pulse parameters					Boundary conditions (BC) applied to boundaries between electrodes and medium (BEM)		
Shape	∅	L	Geometry	Number	d	V_P	t_P	N_P	τ_P	f_P	Type electrical BC at BEM	Type thermal BC at BEM	Ref.
	[m]	[m]			[m]	[V]	[s]		[s]	[Hz]			
Circle	$1\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	{0.5, 1.5, 2.5} (Dimensionless)	NA	NA	NA	NA	Dirichlet	NTA	[32]
Endovascular	$0.1\cdot10^{-3}\times0.5\cdot10^{-3}$ (Width × Length)	NA	Plus shape	4	$2.12\cdot10^{-3}$ (Radius until the top electrode is $1.35\cdot10^{-3}$ m, Angle of 90° to the other electrode)	600	$100\cdot10^{-6}$	90	NA	4	Dirichlet ({V_P, 0})	NR	[33]
Endovascular	$0.1\cdot10^{-3}\times0.5\cdot10^{-3}$ (Width × Length)	NA	Plus shape	4	$2.12\cdot10^{-3}$ (Radius until the top electrode is $1.35\cdot10^{-3}$ m, 90° angle to the top center of other electrode)	[450:50:750]	$100\cdot10^{-6}$	90	NA	{0.5, 1, 2.5, 4, 5, 10}	Dirichlet	NR	[34]
Bipolar	{$0.5\cdot10^{-3}$, $1.2\cdot10^{-3}$}	{$2.15\cdot10^{-3}$, $2.5\cdot10^{-3}$}	Lateral	2	$4.625\cdot10^{-3}$	1300	NA	NA	NA	NA	Dirichlet {V_P,0}	NTA	[35]
Rectangular plate	$3\cdot10^{-3}$	NA	Lateral	2	$0.4\cdot10^{-3}$	70	$100\cdot10^{-6}$	90	NA	{1, 4}	Dirichlet ({V_P, 0})	Continuous	[36]
Rectangular plate	$20\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	1500	$100\cdot10^{-6}$	99	NA	4	Dirichlet	Continuous	[37]
Circle	NC	NA	Lateral	2	NC	{1000, 1500, 2500}	NA (NTA)	NA	NA	NA	Dirichlet {V_P, 0}	NTA	[38]
Circle	$1\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	{1000, 2000, 3000}	$100\cdot10^{-6}$	8	1	NA	Dirichlet {V_P, 0}	Neumann	[39]
Needle	$1\cdot10^{-3}$	$5\cdot10^{-3}$	Lateral	2	$5\cdot10^{-3}$	{500, 1000, 1500}	50	{4x20, 80}	NA	{0.5, 1, 4}	Dirichlet ({V_P, 0})	Robin ($h = 10\ W\cdot m^{-2}\cdot°C^{-1}$)	[40]
Circular plate	NR	NA	Lateral	2	$0.4\cdot10^{-3}$	70	$100\cdot10^{-6}$	90	NA	4	Dirichlet ({V_P, 0})	Continuous	[41]
Endovascular	$0.1\cdot10^{-3}\times0.5\cdot10^{-3}$ (Width × Length)	NA	Plus shape	4	$2.12\cdot10^{-3}$ (Radius until the top electrode is $1.35\cdot10^{-3}$ m, 90° angle to the top center of other electrode)	600	$100\cdot10^{-6}$	90	NA	4	Dirichlet ({V_P, V_P, 0, 0})	NR	[41]
Cylinder	NR	NR	Rectangular shape	6	NR	500	$100\cdot10^{-6}$	50	NA	1	Dirichlet	NR	[42]
Needle	$1.3\cdot10^{-3}$	$2.45\cdot10^{-3}$	Lateral	2	$3.35\cdot10^{-3}$	{150, 300, 450, 600}	$100\cdot10^{-6}$	80	NA	1	Dirichlet ({V_P, 0})	Continuous	[43]
{Internal semi-spherical surface electrode, External disk electrode}	{NR, $2\cdot10^{-3}$}	NA	Lateral	2	$6\cdot10^{-3}$	[500:250:2000]	{$1\cdot10^{-6}$, $1\cdot10^{-5}$, $1\cdot10^{-4}$}	90	NA	[0.1, 0.5, 1, 2, 10]	Dirichlet ({V_P, 0})	NR	[44]

Electrodes						Square pulse parameters					Boundary conditions (BC) applied to boundaries between electrodes and medium (BEM)		
Shape	Ø	L	Geometry	Number	d	V_P	t_P	N_P	τ_P	f_P	Type electrical BC at BEM	Type thermal BC at BEM	Ref.
	[m]	[m]			[m]	[V]	[s]		[s]	[Hz]			
{Internal disk electrode, External disk electrode}	{$2\cdot10^{-3}$, $2\cdot10^{-3}$}	NA	Lateral	2	$6\cdot10^{-3}$	[500:250:2000]	NA	NA	NA	NA	Dirichlet ({V_P, 0})	NR	[44]
{Internal semi-spherical surface electrode, External spherical surface electrode}	{NR, NR}	NA	Lateral	2	$6\cdot10^{-3}$	[500:250:2000]	{$1\cdot10^{-6}$, $1\cdot10^{-5}$, $1\cdot10^{-4}$}	90	NA	[0.1, 0.5, 1, 2, 10]	Dirichlet ({V_P, 0})	NR	[44]
{External ring electrode, External disk electrode}	{$10\cdot10^{-3}$, $2\cdot10^{-3}$}	NA	Lateral	2	$5\cdot10^{-3}$	[500:250:2000]	{$1\cdot10^{-6}$, $1\cdot10^{-5}$, $1\cdot10^{-4}$}	90	NA	[0.1, 0.5, 1, 2, 10]	Dirichlet ({V_P, 0})	NR	[44]
{Internal disk electrode, External disk electrode, External disk electrode }	{$2\cdot10^{-3}$, $2\cdot10^{-3}$, $2\cdot10^{-3}$}	NA	Lateral	3	NR	[500:250:2000]	NA	NA	NA	NA	Dirichlet ({V_P, 0})	NR	[44]
Cylinder	$1\cdot10^{-3}$	$10\cdot10^{-3}$	Lateral	2	$10\cdot10^{-3}$	2000	{0, $5\cdot10^{-6}$, $100\cdot10^{-6}$, $400\cdot10^{-6}$}	{1, 100}	NA	1	Dirichlet	NR	[45]
Needle	$1\cdot10^{-3}$	$10\cdot10^{-3}$	Square	4	$10\cdot10^{-3}$	{1000, 1200}	NA	NA	NA	NA	Dirichlet {V_P, V_P, 0, 0}	NTA	[46]
Cylinder	$1\cdot10^{-3}$	0 (Electrodes touches the surface of tissue)	Lateral	2	$5\cdot10^{-3}$	1000	NA	NA	NA	NA	Dirichlet (-V_P/2, V_P/2)	NTA	[47]
Rectangular plate	$5\cdot10^{-3}$ (Width)	$35\cdot10^{-3}$	Lateral	2	$3.98\cdot10^{-3}$	500	$50\cdot10^{-6}$	200	NA	1	Dirichlet ({V_P, 0V})	NR	[48]
Cylinder	$1\cdot10^{-3}$	$15\cdot10^{-3}$	Lateral	2	$10\cdot10^{-3}$	1750	$100\cdot10^{-6}$	1	NA	NA	NR	NR	[49]
{Inner electrode: Needle, Outer Electrode: Ring} (Dorsal Skin Fold Chamber)	$1\cdot10^{-3}$ (Inner electrode) $5\cdot10^{-3}$ (Outer electrode)	$1\cdot10^{-3}$ (Inner electrode) $1\cdot10^{-3}$ (Outer electrode)	Coaxial shape	2	$4.5\cdot10^{-3}$ (Edge-to-Edge)	500	[10, 50, 100]	[10, 50, 99]	NA	10	Dirichlet {V_P, 0}	NTA	[50]
Monopolar endorectal probe	$30\cdot10^{-3}$	NC	NC	1	NC	[1000:50:2500]	NTA	NTA	NTA	NTA	Dirichlet {V_P, 0}	NTA	[51]
Bipolar endorectal probe	$30\cdot10^{-3}$	$10\cdot10^{-3}$	Lateral	2	$17\cdot10^{-3}$	[1000:50:2500]	NTA	NTA	NTA	NTA	Dirichlet {V_P, 0}	NTA	[51]
Monopolar cylinder	$1\cdot10^{-3}$	$21\cdot10^{-3}$	Lateral	2	NR	{2000, 2250, 2500}	NTA	NTA	NTA	NTA	Dirichlet ({V_P, 0})	NTA	[52]
Bipolar cylinder	$1\cdot10^{-3}$	$21\cdot10^{-3}$	Lateral	2	{$10\cdot10^{-3}$, $15\cdot10^{-3}$}	{2100, 2400}	NTA	NTA	NTA	NTA	Dirichlet ({V_P, 0})	NTA	[52]
Bipolar cylinder	$1.65\cdot10^{-3}$	$7\cdot10^{-3}$	Lateral	2	$15\cdot10^{-3}$	{500, 3000}	$100\cdot10^{-6}$	90	NA	1	Dirichlet	Continuous	[53]
Rectangular plat	NA	$7\cdot10^{-3}$	Lateral	2	$3\cdot10^{-3}$	360	NA	NA	NA	NA	Dirichlet	NTA	[54]

Electrodes						Square pulse parameters					Boundary conditions (BC) applied to boundaries between electrodes and medium (BEM)		
Shape	∅	L	Geometry	Number	d	V_P	t_P	N_P	τ_P	f_P	Type electrical BC at BEM	Type thermal BC at BEM	Ref.
	[m]	[m]			[m]	[V]	[s]		[s]	[Hz]			
											$\{V_P,0\}$		
Cylinder	$\{0.5\cdot10^{-3}, 1\cdot10^{-3}, 1.5\cdot10^{-3}\}$	$\{5\cdot10^{-3}, 10\cdot10^{-3}, 15\cdot10^{-3}\}$	Lateral	2	$\{2.5\cdot10^{-3}, 5\cdot10^{-3}, 7.5\cdot10^{-3}, 10\cdot10^{-3}, 15\cdot10^{-3}, 22.5\cdot10^{-3}\}$	[500:500:2500]	$\{90\cdot10^{-6}, 100\cdot10^{-6}, 110\cdot10^{-6}, 120\cdot10^{-6}, 200\cdot10^{-6}, 300\cdot10^{-6}\}$	1	NA	NA	Dirichlet $\{V_P/2, -V_P/2\}$	Continuous	[55]
Cylinder	$1\cdot10^{-3}$	$5\cdot10^{-3}$	Lateral	2	$\{10\cdot10^{-2}, 12\cdot10^{-2}, 14\cdot10^{-2}, 15\cdot10^{-2}\}$	{1250, 1800, 2100, 2625}	NA	NA	NA	NA	NR	NTA	[56]
Cylinder	$1\cdot10^{-3}$	$5\cdot10^{-3}$	Lateral	2	$5\cdot10^{-3}$	[500:500:2500]	NA	NA	NA	NA	Dirichlet ($\{V_P, 0\}$)	NTA	[57]
Cylinder	$[0.5\cdot10^{-3}: 0.25\cdot10^{-3}: 2\cdot10^{-3}]$	$[0.5\cdot10^{-3}: 0.5\cdot10^{-3}: 5\cdot10^{-3}]$	Lateral	2	$[1\cdot10^{-3}: 0.5\cdot10^{-3}: 5\cdot10^{-3}]$	[600, 2000] (With steps of 200 and 250)	$100\cdot10^{-6}$	1	NA	NA	Dirichlet	Continuous	[58]
Cylinder	$[0.5\cdot10^{-3}: 0.25\cdot10^{-3}: 2\cdot10^{-3}]$	$[0.5\cdot10^{-3}: 0.5\cdot10^{-3}: 5\cdot10^{-3}]$	Rectangular	4	$[1\cdot10^{-3}: 0.5\cdot10^{-3}: 5\cdot10^{-3}]$	[600, 2000] (With steps of 200 and 250)	$100\cdot10^{-6}$	1	NA	NA	Dirichlet	Continuous	[58]
Cylinder	$[0.5\cdot10^{-3}: 0.25\cdot10^{-3}: 2\cdot10^{-3}]$	$[0.5\cdot10^{-3}: 0.5\cdot10^{-3}: 5\cdot10^{-3}]$	Hexagonal	6	$\{[1\cdot10^{-3}: 5\cdot10^{-3}], 4\cdot3^{-0.5}\}$	[600, 2000] (With steps of 200 and 250)	$100\cdot10^{-6}$	1	NA	NA	Dirichlet	Continuous	[58]
Plate	$9.4\cdot10^{-3}$	NA	Lateral	2	$1\cdot10^{-3}$	200	$70\cdot10^{-6}$	50	NA	4	Dirichlet ($\{V_P, 0\}$, (Small intestine)	Continuous Robin ($h = 10\ W\cdot m^{-2}\cdot°C^{-1}$, $T_{env} = 20\ °C$)	[59]
Rectangular plate	$20\cdot10^{-3}\times10\cdot10^{-3}$ (Length × Width)	NA	Lateral	2	$2\cdot10^{-3}$	800	$100\cdot10^{-6}$	90	NA	1	Dirichlet ($\{V_P/2, -V_P/2\}$)	NR	[60]
Cylinder	$0.87\cdot10^{-3}$	$1\cdot10^{-3}$	Lateral	2	$4.17\cdot10^{-3}$	450	$100\cdot10^{-6}$	50	NA	1	Dirichlet ($\{V_P, 0\}$)	Continuous	[61]
Cylinder	NR	NR	Rectangular	4	$\{12\cdot10^{-3}, 14\cdot10^{-3}, 15\cdot10^{-3}, 17\cdot10^{-3}, 18\cdot10^{-3}\}$	[1540, 3000]	$90\cdot10^{-6}$	{20, 70}	NR	NR	NR	NR	[62]
Cylinder	$1\cdot10^{-3}$	$10\cdot10^{-3}$	Lateral	2	$\{10\cdot10^{-3}, 15\cdot10^{-3}\}$	{1250, 1750, 2250}	NA	NA	NA	NA	Dirichlet ($\{V_P, 0\}$)	NTA	[63]
Cylinder	$1\cdot10^{-3}$	∞	Lateral	2	$1\cdot10^{-2}$	{1500, 2000}	$100\cdot10^{-6}$	100	NA	1	Dirichlet $\{V_P, 0V\}$	NA	[64]
Monopolar needle	NR	$10\cdot10^{-3}$	Lateral	2	$\{10\cdot10^{-3}, 15\cdot10^{-3}\}$	{2000, 2250, 2500, 2700}	NA	NA	NA	NA	Dirichlet $\{V_P, 0\}$	NTA	[65]
Bipolar needle	NR	NR	Lateral	2	NR	{2400, 2700}	NA	NA	NA	NA	Dirichlet ($\{V_P, 0\}$)	NTA	[65]
{Needle, External surface electrode}	NR	NA	ND	2	$29.3\cdot10^{-3}$	600	$50\cdot10^{-6}$	540	NA	1	Dirichlet ($\{V_P, 0\}$)	NR	[66]

Electrodes						Square pulse parameters					Boundary conditions (BC) applied to boundaries between electrodes and medium (BEM)		
Shape	Ø	L	Geometry	Number	d	V_P	t_P	N_P	τ_P	f_P	Type electrical BC at BEM	Type thermal BC at BEM	Ref.
	[m]	[m]			[m]	[V]	[s]		[s]	[Hz]			
Needle	NR	NR	NR	{3, 4, 5}	[$10\cdot10^{-3}$, $19\cdot10^{-3}$]	[1650,2850]	NA	NA	NA	NA	NR	NR	[67]
Needle	$0.91\cdot10^{-3}$	{$15\cdot10^{-3}$, $20\cdot10^{-3}$}	NR	{4, 6}	NR	NR	NTA	NTA	NTA	NTA	Dirichlet ({V_P, 0})	NTA	[68]
Cylinder	$1\cdot10^{-3}$	NR	NR	{2, 4, 6}	NR	[500, 1000]	NA	NA	NA	NA	Dirichlet	NTA	[69]
Needle	NR	NR	ND	3	NR	NR	NR	{10, 90, 200}	NR	NR	Dirichlet ({V_P, 0})	NR	[70]
Cylinder	$1\cdot10^{-3}$	{$10\cdot10^{-3}$, $15\cdot10^{-3}$, $20\cdot10^{-3}$, $25\cdot10^{-3}$}	{Lateral, Triangular, NC for 4 electrode numbers}	{2, 3, 4}	{$10\cdot10^{-3}$, $15\cdot10^{-3}$, $20\cdot10^{-3}$, $25\cdot10^{-3}$}	{2000, 2500, 3000}	NA	NA	NA	NA	Dirichlet	NTA	[71]
Circle	$0.2\cdot10^{-3}$	NA	Lateral	2	$2\cdot10^{-3}$	{150, 350, 500}	$100\cdot10^{-6}$	{8, 32, 64}	NA	NA	Dirichlet {V_P, -V_P}	NTA	[72]
Cylinder	$1\cdot10^{-3}$	$15\cdot10^{-3}$	Lateral	2	$20\cdot10^{-3}$	{1000, 2000, 3000}	$50\cdot10^{-6}$	80	NA	1	Dirichlet ({V_P, 0})	Neumann	[73]
Hollow cylinder	$0.914\cdot10^{-3}$	NC	Lateral	2	$4\cdot10^{-3}$	450	$100\cdot10^{-6}$	80	NA	1	Dirichlet ({V_P, 0})	Neumann	[73]
{Needle, Needle with parylene coating on outer surface}	$1\cdot10^{-3}$	$8\cdot10^{-3}$	Lateral	2	$11\cdot10^{-3}$	{1000, 1250, 1500}	NTA	NTA	NTA	NTA	Dirichlet {V_P, 0}	NTA	[74]
Rectangular plate	$0.15\cdot10^{-3}$	NA	Lateral	1 (Use of symmetry, so technically 2)	$0.25\cdot10^{-3}$ (In case of 2 electrodes)	{50, 100}	NA	NA	NA	NA	Dirichlet ({V_P/2, -V_P/2})	NTA	[75]
{Inner cylinder, Outer ring (Dispersive ground pad)}	{$0.26\cdot10^{-3}$, $15\cdot10^{-3}$}	NR	Coaxial shape	2	$7\cdot10^{-3}$	NR	$100\cdot10^{-6}$	100	NA	1	Dirichlet	NR	[76]
Needle-shaped multipolar electrode	{$0.6\cdot10^{-3}$, $3.2\cdot10^{-3}$}	{$9\cdot10^{-3}$, $9.8\cdot10^{-3}$}	NC	5	{$6.2\cdot10^{-3}$, $10\cdot10^{-3}$}	{1500, 2000}	NA	NA	NA	NA	NR	NTA	[77]
Cylinder	$1\cdot10^{-3}$	NA	Lateral	2	$10\cdot10^{-3}$	1000	{$50\cdot10^{-6}$, $75\cdot10^{-6}$, $100\cdot10^{-6}$}	NA	NA	NA	Dirichlet ({V_P, 0})	NTA	[78]
Needle	NR	$25\cdot10^{-3}$	Triangular	3	$20\cdot10^{-3}$	3000	NA	NA	NA	NA	{Dirichlet, Robin}	NTA	[79]
Bipolar hollow cylinder	$2.5\cdot10^{-3}$	$10\cdot10^{-3}$	Lateral	2	$18\cdot10^{-3}$	2700	$100\cdot10^{-6}$	300	NA	1.5	Dirichlet	Robin ($30.01\cdot10^{2}$ $W\cdot m^{-2}\cdot°C^{-1}$, Cooled electrode) Continuous	[80]

Table A6.4

Table A6.4 Data about surface areas of electric field, mild hyperthermia and thermal damage, maximum temperature increase, experimental pulses, and validated results and parameters obtained from the included studies. This table was arranged according to the reference number. The brackets "{ }" are defined as a set of elements, "[a, b]" is defined as the range between and including the values a and b assuming {a, b} ∈ ℝ, and "[a:c:b]" is defined as the range between and including the values a and b with step c assuming {a, b, c} ∈ ℝ. The following abbreviations are used: NR (Not reported), NA (Not applicable), NC (Not clear), NTA (No thermal analysis), and ND (Not defined). In case $E_{IRE(th)}$ was defined as a range [a, b] assuming {a, b} ∈ ℝ, then the average of a and b was calculated and used to calculate the surface areas of electric field.

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
680·10^2	8.80·10^{-5}	Center	1	0	NA	NA	0	NA	NA	[37, 40]	Ø = 1·10^{-3} m d = 10·10^{-3} m Electrodes number = 2 V_P = 1331 V t_P = 200·10^{-6} s	8.80·10^{-5}	0	0	NA	NA	[3]
680·10^2	8.80·10^{-5}	Center	1	7.73·10^{-7}	{Left, Right}	2	0	NA	NA	[37, 43]	Ø = 1·10^{-3} m d = 10·10^{-3} m Number = 2 V_P = 1331 V t_P = 400·10^{-6} s	8.80·10^{-5}	1.76	0	NA	NA	[3]
680·10^2	8.80·10^{-5}	Center	1	2.15·10^{-6}	{Left, Right}	2	0	NA	NA	[37, 50]	Ø = 1·10^{-3} m d = 10·10^{-3} m Number = 2 V_P = 1331 V	8.80·10^{-5}	4.9	0	NA	NA	[3]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
											t_P = 800·10^{-6} s						
400·10^2	4.83·10^{-5}	Central	1	1.11·10^{-6}	{Top left, Top right, Bottom left, Bottom right}	4	3.89·10^{-8}	{Top left, Top right, Bottom left, Bottom right}	4	NA	NA	4.83·10^{-5}	9.19	0.32	(400, 2000·10^{-6}, 1, NA, NA)	{σ, $E_{IRE(th)}$}	[24]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 37.5]	V_P = 1000 V t_P = 100·10^{-6} s N_P = 80 f_P = 0.3 Hz d = 4·10^{-3} m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10^{-6}, 800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 38]	V_P = 1000 V t_P = 100·10^{-6} s N_P = 64 f_P = 1 Hz d = 4·10^{-3} m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10^{-6}, 800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 38]	V_P = 600 V t_P = 100·10^{-6} s N_P = 8 f_P = 1 Hz d = 3·10^{-3} m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10^{-6}, 800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4	NA	[25]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m⁻¹]	[m²]			[m²]			[m²]			[°C]		[m²]	[%]	[%]	([V], [s], [-], [s], [Hz])		
															pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})		
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 38]	$V_P = 1000$ V $t_P = 100 \cdot 10^{-6}$ s $N_P = 8$ $f_P = 1$ Hz $d = 5 \cdot 10^{-3}$ m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10⁻⁶, 800·10⁻⁶, 1000·10⁻⁶}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 39]	$V_P = 600$ V $t_P = 800 \cdot 10^{-6}$ s $N_P = 1$ $f_P = 1$ Hz $d = 3 \cdot 10^{-3}$ m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10⁻⁶, 800·10⁻⁶, 1000·10⁻⁶}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 39]	$V_P = 1000$ V $t_P = 800 \cdot 10^{-6}$ s $N_P = 1$ $f_P = 1$ Hz $d = 5 \cdot 10^{-3}$ m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10⁻⁶, 800·10⁻⁶, 1000·10⁻⁶}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)},	NA	[25]

Simulations of electric-field distribution				Simulations of temperature distribution														
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation			
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
															NA, {0.03, 0.3, 1, 5000})		
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 40]	V_P = 1000 V t_P = 100·10^{-6} s N_P = 64 f_P = 5000 Hz d = 5·10^{-3} m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10^{-6}, 800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 40]	V_P = 1000 V t_P = 100·10^{-6} s N_P = 80 f_P = 3 Hz d = 4·10^{-3} m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10^{-6}, 800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 40]	V_P = 1000 V t_P = 1000·10^{-6} s N_P = 8 f_P = 0.03 Hz d = 4·10^{-3} m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {100·10^{-6}, 800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 41]	$V_P = 1000$ V $t_P = 100 \cdot 10^{-6}$ s $N_P = 64$ $f_P = 5000$ Hz $d = 4 \cdot 10^{-3}$ m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {$100 \cdot 10^{-6}$, $800 \cdot 10^{-6}$, $1000 \cdot 10^{-6}$}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 43]	$V_P = 1000$ V $t_P = 800 \cdot 10^{-6}$ s $N_P = 8$, $f_P = 1$ Hz $d = 5 \cdot 10^{-3}$ m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {$100 \cdot 10^{-6}$, $800 \cdot 10^{-6}$, $1000 \cdot 10^{-6}$}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 46]	$V_P = 1000$ V $t_P = 800 \cdot 10^{-6}$ s $N_P = 8$ $f_P = 1$ Hz $d = 4 \cdot 10^{-3}$ m	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({600, 1000}, {$100 \cdot 10^{-6}$, $800 \cdot 10^{-6}$, $1000 \cdot 10^{-6}$}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})	NA	[25]
NA (No 2D figures	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	[37, 51]	$V_P = 1000$ V	NA (No 2D figures of	NA (No 2D figures of	NA (No 2D figures of	({600, 1000}, {$100 \cdot 10^{-6}$,	NA	[25]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
of E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)		t_P = 1000·10^{-6} s N_P = 8 f_P = 0.3 Hz d = 4·10^{-3} m	E- and T-distributions)	E- and T-distributions)	E- and T-distributions)	800·10^{-6}, 1000·10^{-6}}, {1, 8, (4 sets × 2 pulses), (16 sets ×4 pulses), (4 sets ×20 pulses)}, NA, {0.03, 0.3, 1, 5000})		
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 37.7]	Shape cylinder Ø = 0.5·10^{-3} m d = 10·10^{-3} m V_P = 1000 2D ND tissue 1	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[26]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 37.6]	Shape cylinder Ø = 1·10^{-3} m d = 10·10^{-3} m V_P = 1000 2D ND tissue 1	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[26]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 37.4]	Shape cylinder Ø = 2·10^{-3} m d = 10·10^{-3} m V_P = 1000 2D ND tissue 1	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[26]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Sphere; V_P = 500 V; t_P =	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
											864·10^{-6} s)						
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Sphere; V_P = 1000 V; t_P = 242·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Sphere; V_P = 2000 V; t_P = 51.6·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Cylinder; V_P = 500 V; t_P = 8960·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Cylinder; V_P = 1000 V; t_P = 2110·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Cylinder; V_P = 2000 V; t_P = 510·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Plate; V_P = 500 V; t_P = 104000·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Plate; V_P = 1000 V; t_P = 25600·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]

Simulations of electric-field distribution				Simulations of temperature distribution											Validation		
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
NR	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	[37, 50]	(Shape: Plate; V_P = 2000 V; t_P = 8000·10^{-6} s)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA ($E_{IRE(th)}$ NR)	NA	NA	[27]
NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	[37.08, 41.8]	Homogeneous prostate	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA	NA	[28]
NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	[37.08, 41.82]	Prostate including axon and myelin	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA	NA	[28]
NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	[37.08, 41.35]	Prostate including blood vessel	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA	NA	[28]
NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	[37.08, 37.5]	Homogeneous fatty breast	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA	NA	[28]
NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	[37.08, 37.35]	Fatty breast tissue including breast gland and myoepithelial cells	NA (2D figures NC)	NA (2D figures NC)	NA (2D figures NC)	NA	NA	[28]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (σ for both tissues NR)	NA	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(NR, 100·10^{-6}, 80, NA, 1)	$E_{IRE(th)}$	[29]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NA	NA	({200, 300, 500, 800, 1500}, {100, 350, 500, 750, 1000, 2000, 5000}, 1, NA, NA)	NA	[30]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m⁻¹]	[m²]			[m²]			[m²]			[°C]		[m²]	[%]	[%]	([V], [s], [-], [s], [Hz])		
$510 \cdot 10^2$	$6.97 \cdot 10^{-5}$	Center	1	$6.18 \cdot 10^{-5}$	Center	1	$6.14 \cdot 10^{-6}$	Center	1	[37, 52]	(V_P = 1000 V)	$6.97 \cdot 10^{-5}$	88.67	8.81	({500, 1000}, $50 \cdot 10^{-6}$, 9×10 Pulses, 4) (Sets were separated by 1s)	$E_{IRE(th)}$	[31]
NR	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	NA	NA	[32]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 66.8]	NA	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(600, $100 \cdot 10^{-6}$, 90, NA, 4)	NA	[33]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37,66.7]	V_P = 600 V f_P = 4 Hz σ = 0.6 S·m⁻¹ w_b = 0.5 kg·m⁻³·s⁻¹	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 58]	V_P = 600 V f_P = 2 Hz σ = 0.6 S·m⁻¹ w_b = 0.5 kg·m⁻³·s⁻¹	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 51]	V_P = 600 V f_P = 1 Hz σ = 0.6 S·m⁻¹ w_b = 0.5 kg·m⁻³·s⁻¹	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 40]	V_P = 450 V f_P = 0.5 Hz σ = 0.6 S·m⁻¹ w_b = 0.5 kg m⁻³ s⁻¹	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]

Simulations of electric-field distribution				Simulations of temperature distribution											Validation		
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[$V\cdot m^{-1}$]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 49]	V_P = 450 V f_P = 10 Hz σ = 0.6 $S\cdot m^{-1}$ w_b = 0.5 $kg\cdot m^{-3}\cdot s^{-1}$	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 55]	V_P = 750V f_P = 0.5 Hz σ = 0.6 $S\cdot m^{-1}$ w_b = 0.5 $kg\cdot m^{-3}\cdot s^{-1}$	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 87]	V_P = 750 V f_P = 10 Hz σ = 0.6 $S\cdot m^{-1}$ w_b = 0.5 $kg\cdot m^{-3}\cdot s^{-1}$	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[34]
$1000\cdot 10^2$	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA	NA (NTA)	NA (NTA)	NA (NTA)	([1100:100:1300], $100\cdot 10^{-6}$, 100, 3, NA)	NA	[35]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 40.13]	f_P = 1 Hz	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(70, $100\cdot 10^{-6}$, 90, {1, 4})	$E_{IRE(th)}$	[36]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 40.93]	f_P = 4 Hz	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(70, $100\cdot 10^{-6}$, 90, {1, 4})	$E_{IRE(th)}$	[36]
$423\cdot 10^2$	$1.54\cdot 10^{-4}$	Center	1	$6.86\cdot 10^{-5}$	Center	1	$6.36\cdot 10^{-5}$	Center	1	[21, 35.5]	NA	$1.54\cdot 10^{-4}$	44.5	41.3	(1500, $100\cdot 10^{-6}$, 99, NA, {0.25, 0.5, 1, 4})	$E_{IRE(th)}$	[37]
$680\cdot 10^2$	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA (NTA)	NA	NA (NTA)	NA (NTA)	NA (NTA)	({1000, 1500, 2500}, $100\cdot 10^{-6}$, 8,	$E_{IRE(th)}$	[38]

Simulations of electric-field distribution				Simulations of temperature distribution								Parameters for meta-analysis			Validation		
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$										
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[$V\cdot m^{-1}$]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
															$100\cdot10^{-3}$, NA)		
$680\cdot10^2$	$4.05\cdot10^{-4}$	Center	1	NA (T_{init} is not shown in figure)	NA (T_{init} is not shown in figure)	NA (T_{init} is not shown in figure)	0	Center	1	[37, 56.4]	(Saline {$\sigma = 1$ $S\cdot m^{-1}$, Thickness $= 1\cdot10^{-3}$ m}, $V_P = 3000$ V)	$4.05\cdot10^{-4}$	NA (T_{init} is not shown in figure)	0	NA	NA	[39]
$680\cdot10^2$	$5.17\cdot10^{-4}$	Center	1	NA (T_{init} is not shown in figure)	NA (T_{init} is not shown in figure)	NA (T_{init} is not shown in figure)	$3\cdot10^{-6}$	{Left, Right}	2	[37, 53.7]	(Saline {$\sigma = 8$ $S\cdot m^{-1}$, Thickness $= 1\cdot10^{-3}$ m}, $V_P = 3000$ V)	$5.17\cdot10^{-4}$	NA (T_{init} is not shown in figure)	1.16	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 63.3]	(No Saline, $V_P = 3000$V)	NA	NA	NA	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 57.1]	(Saline {Thickness $= 0.25\cdot10^{-3}$ m, $\sigma = 1$ $S\cdot m^{-1}$}, $V_P = 3000$ V)	NA	NA	NA	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 39.4]	(Saline {Thickness $= 0.25\cdot10^{-3}$ m, $\sigma = 8$ $S\cdot m^{-1}$}, $V_P = 1000$ V)	NA	NA	NA	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 55.2]	(Saline {Thickness $= 0.5\cdot10^{-3}$ m, $\sigma = 1$ $S\cdot m^{-1}$}, $V_P = 3000$ V)	NA	NA	NA	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 39.2]	(Saline {Thickness $= 0.5\cdot10^{-3}$ m, $\sigma = 8$ $S\cdot m^{-1}$}, $V_P = 1000$ V)	NA	NA	NA	NA	NA	[39]

Simulations of electric-field distribution				Simulations of temperature distribution											Validation		
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 60.2]	(Saline {Thickness = 2·10^{-3} m, σ = 1 S·m^{-1}}, V_P = 3000 V)	NA	NA	NA	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 38.9]	(Saline {Thickness = 1·10^{-3} m, σ = 8 S·m^{-1}}, V_P = 1000 V)	NA	NA	NA	NA	NA	[39]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[37, 39.6]	(Saline {Thickness = 2·10^{-3} m, σ = 8 S·m^{-1}}, V_P = 1000 V)	NA	NA	NA	NA	NA	[39]
500·10^2	NR	NR	NR	NR	NR	NR	NR	NR	NR	[33.3, 34.3]	(V_P = 500 V, N_P = 4x20, f_P = 1 Hz, Additional waiting time of 3.5 s)	NR	NR	NR	(500, 50·10^{-6}, 4×20, NR, NR, ~1)	T	[40]
500·10^2	8.94·10^{-5}	Center	1	NA (Temperatures below 43 °C were not shown)	NA (Temperatures below 43 °C were not shown)	NA (Temperatures below 43 °C were not shown)	0	NA	NA	[37, 47.8]	(V_P = 1000 V, N_P = 80, f_P = 1 Hz)	8.94·10^{-5}	NA	0	NA	NA	[40]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 45.25]	Circular plate	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	({70, 600}, 100·10^{-6}, 90, NA, 4)	$E_{IRE(th)}$	[41]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 66.8]	Endovascular	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	({70, 600}, 100·10^{-6}, 90, NA, 4)	$E_{IRE(th)}$	[41]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	[37, 39.3]	Temperature calculated using Pennes Bioheat Equation E-field distribution of all electrode pairs was simultaneously used for calculation of T	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA	NA	[42]
NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	[37, 67.3]	Temperature calculated using simplified Pennes Bioheat equation E-field distribution of all electrode pairs was simultaneously used for calculation of T	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA (No 2D figure of E-distribution)	NA	NA	[42]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[22, 23]	V_P = 150 V	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	([0:150:600], 100·10^{-6}, 80, NA, 1)	{T, σ, $E_{IRE(th)}$}	[43]
NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	[22, 27]	V_P = 300 V	NA (No 2D figure of T-	NA (No 2D figure of T-	NA (No 2D figure of T-	([0:150:600], 100·10^{-6}, 80, NA, 1)	{T, σ, $E_{IRE(th)}$}	[43]

Simulations of electric-field distribution				Simulations of temperature distribution								Parameters for meta-analysis			Validation		
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$										
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
distribution)	distribution)	distribution)	distribution)	distribution)	distribution)	distribution)	distribution)	distribution)	distribution)			distribution)	distribution)	distribution)			
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[22, 35]	V_P = 450 V	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	([0:150:600], 100·10^{-6}, 80, NA, 1)	{T, σ, $E_{IRE(th)}$}	[43]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[22, 51]	V_P = 600V	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	([0:150:600], 100·10^{-6}, 80, NA, 1)	{T, σ, $E_{IRE(th)}$}	[43]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[36.6, 55.3]	(Sclera, {External ring electrode, External disk electrode}, V_P = 2000 V, t_P = 100·10^{-6} s, N_P = 90, f_P = 1 Hz)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[44]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[36.65, 49.75]	(Retina, {External ring electrode, External disk electrode}, V_P = 2000 V, t_P = 100·10^{-6} s, N_P = 90, f_P = 1 Hz)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[44]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[36.71, 48.19]	(Ocular tumor, {External ring electrode, External disk	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[44]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m⁻¹]	[m²]			[m²]			[m²]			[°C]		[m²]	[%]	[%]	([V], [s], [-], [s], [Hz])		
											electrode}, σ = 0.3322 S·m⁻¹, V_P = 2000V, t_P = 100·10⁻⁶s, N_P = 90, f_P = 1Hz)						
500·10²	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NR	NA	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	NA (No 2D figure of temperature)	({[100:50:500], 750, 1000}, {100·10⁻⁶, 500·10⁻⁶}, 10, 200, NA, 1)	σ	[45]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	NA	NA	[46]
1250·10²	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1·10³, 10·10⁻⁶, [15, 30, 45, 60, 75, 90], 100·10⁻³, NA)	$E_{IRE(th)}$	[47]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37.2, 39.4]	NA	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(500, 50·10⁻⁶, 200, NA, 1)	NA	[48]
NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	[37, 39]	(No seed array)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	({1250, 2625}, 100·10⁻⁶, 100, NA, 1)	NA	[49]
NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	[37, 39]	(9-seed array)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	({1250, 2625}, 100·10⁻⁶, 100, NA, 1)	NA	[49]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	[37, 39]	(39-seed array)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	NA (No 2D figures of E and T-distributions)	({1250, 2625}, 100·10^{-6}, 100, NA, 1)	NA	[49]
950·10^2	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	(500, {10, 50,100}, {10, 50, 99}, 10)	$E_{IRE(th)}$	[50]
387.5·10^2	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({[1050, 1125], 2100}, 100·10^{-6}, 90, NA, NR) (Monopolar electrode)	NA	[51]
387.5·10^2	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({1500, 2000}, 100·10^{-6}, 90, NA, NR) (Bipolar electrode)	NA	[51]
650·10^2	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({2000, 2100, 2250, 2400, 2500}, {70·10^{-6}, 100·10^{-6}}, {70, 90}, NR, NR)	$E_{IRE(th)}$	[52]
580·10^2	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NA (No 2D Temperature)	NR	NA	NA (Reason: No 2D Temperature)	NA (Reason: No 2D Temperature)	NA (Reason: No 2D Temperature)	NA	NA	[53]
NA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA		NTA	NTA	NTA	([120, 240, 360, 480, 600, 720], 50·10^{-6}, 99, NA, 4)	NA	[54]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	$\Delta T = 34$ °C	(V_P = 1000 V, Ø	NA	NA	NA	NA	NA	[55]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m⁻¹]	[m²]			[m²]			[m²]			[°C]		[m²]	[%]	[%]	([V], [s], [-], [s], [Hz])		
(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)		= $1 \cdot 10^{-3}$ m, d = $5 \cdot 10^{-3}$ m, t_P = $300 \cdot 10^{-6}$ s)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)	(No 2D figure of T-distribution)			
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	ΔT = 21 °C	(V_P = 1000 V, Ø = $1 \cdot 10^{-3}$ m, d = $10 \cdot 10^{-3}$ m, t_P = $300 \cdot 10^{-6}$ s)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[55]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	ΔT = 20 °C	(V_P = 1000 V, Ø= $1 \cdot 10^{-3}$ m, d = $15 \cdot 10^{-3}$ m, t_P = $300 \cdot 10^{-6}$ s)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[55]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	ΔT = 135 °C	(V_P = 2000 V, Ø = $1 \cdot 10^{-3}$ m, d = $5 \cdot 10^{-3}$ m, t_P = $300 \cdot 10^{-6}$ s)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[55]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	ΔT = 85 °C	(V_P = 2000 V, Ø = $1 \cdot 10^{-3}$ m, d = $10 \cdot 10^{-3}$ m, t_P = $300 \cdot 10^{-6}$ s)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[55]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	ΔT = 10 °C	(V_P = 2000 V, Ø = $1 \cdot 10^{-3}$ m, d = $15 \cdot 10^{-3}$ m, t_P =	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA	NA	[55]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
											$300\cdot10^{-6}$ s)						
NA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({1250, 1800, 2100, 2625}, {$70\cdot10^{-6}$, $100\cdot10^{-6}$}, {90, 100}, NA, {1, CAR})	{$E_{IRE(th)}$, σ_{init}, σ_{max}}	[56]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({0:200:800, 1600}, $50\cdot10^{-6}$, {0:10:100}, 1)	$E_{IRE(th)}$	[57]
NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA (No 2d temperature distribution)	NA	No	[58]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 46.49]	(Homogeneous model)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(200, $70\cdot10^{-6}$, 50, NA, 4)	NA	[59]
NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	[37, 42.66]	(Heterogeneous model; σ; Submucosa: σ_{init} = 0.1 S·m^{-1}; Mucosa (No villi): σ_{init} = 0.8 S·m^{-1}; Mucosa (Villi): σ_{init} = 0.8 S·m^{-1})	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	NA (No 2D figure of T-distribution)	(200, $70\cdot10^{-6}$, 50, NA, 4)	NA	[59]
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	[20, 39.5]		NA	NA	NA	([0:100:800], {$50\cdot10^{-6}$, $100\cdot10^{-6}$, $200\cdot10^{-6}$},	T	[60]

Simulations of electric-field distribution				Simulations of temperature distribution								Parameters for meta-analysis			Validation		
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m⁻¹]	[m²]			[m²]			[m²]			[°C]		[m²]	[%]	[%]	([V], [s], [-], [s], [Hz])		
															{8, [30:20:90]}, NA, 1)		
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NR	NA	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	(450, $100\cdot10^{-6}$, 50, NA, 1)	$E_{IRE(th)}$	[61]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 100]	(Parameters used NC)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	([1540, 3000], $90\cdot10^{-6}$, {20, 70} NR, NR)	NA	[62]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({1250, 1750, 2250}, $100\cdot10^{-6}$, 100, NA, 1)	{σ, $E_{IRE(th)}$}	[63]
NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	[37, 92]	(V_P = 1500V, model excluding blood perfusion)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA	NA	[64]
NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	[37, 53]	(V_P = 2000V, model including blood perfusion)	NA (1D simulation)	NA (1D simulation)	NA (1D simulation)	NA	NA	[64]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({2000, 2250, 2400, 2500, 2700}, {$70\cdot10^{-6}$, $100\cdot10^{-6}$}, {70, 90}, NR, NR)	$E_{IRE(th)}$	[65]
$700\cdot10^2$	$5.078\cdot10^{-5}$	Surrounding	1	0	0	0	0	0	0	[37, 38.9]	NA	$6.635\cdot10^{-5}$	0	0	(600, $50\cdot10^{-6}$, {10, 45,	NA	[66]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
[V·m^{-1}]	[m^2]			[m^2]			[m^2]			[°C]		[m^2]	[%]	[%]	([V], [s], [-], [s], [Hz])		
		needle electrode													90, 180, 270, 450, 540}, NA, 1)		
700·10^2	1.557·10^{-5}	At the outer edge of the surface electrode, close to the needle electrode	1	0	0	0	0	0	0	NA	NA	6.635·10^{-5}	0	0	(600, 50·10^{-6}, {10, 45, 90, 180, 270, 450, 540}, NA, 1)	NA	[66]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	([1650,2850], 90·10^{-6}, NR, NR, NR)	$E_{IRE(th)}$	[67]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	(NR, [70·10^{-6}, 90·10^{-6}], {10, 80}, NA, NR) (Per treatment, a patient received 90 pulses)	$E_{IRE(th)}$	[68]
NTA	NA	NTA	NA	NTA	NA	NTA	NA	NTA	NA	NTA	NA	NTA	NA	NTA	([500, 1000], NR, NR, NR, NR)	NC	[69]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	[37, 45.2]	(N_P = 90)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA	NA	[70]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	NA	NA	[71]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({150, 350, 500}, 100·10^{-6}, {8, 32, 64}, NA. 1)	NA	[72]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Parameters attempted to validate	Ref
$[V\cdot m^{-1}]$	$[m^2]$			$[m^2]$			$[m^2]$			[°C]		$[m^2]$	[%]	[%]	([V], [s], [-], [s], [Hz])		
$745\cdot10^{2}$	$5.532\cdot10^{-4}$	Center	1	$5.821\cdot10^{-4}$	Center	1	$1.2305\cdot10^{-4}$	{Left, Right}	2	[37, 67]	(Cylinder, $\emptyset = 1\cdot10^{-3}$ m, V_P = 3000 V)	$5.532\cdot10^{-4}$	105.2	44.5	(450, $100\cdot10^{-6}$, 80, NA, 1)	$E_{IRE(th)}$	[73]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({1000, 1250, 1500}, $100\cdot10^{-6}$, 90, NA, 1)	$E_{IRE(th)}$	[74]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({50, 100}, $100\cdot10^{-6}$, 90, 1, NA)	$E_{IRE(th)}$	[75]
NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NR	NA	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	NA (No 2D figures of E- and T-distributions)	({0, 75, 90, 100, 115, 150, 200, 300, 400}, $100\cdot10^{-6}$, 100, NA, 1)	$E_{IRE(th)}$	[76]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	($100\cdot10^{-6}$, 70, 1)	NA	[77]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	({200, 400, 600, 800, 1800}, {$75\cdot10^{-6}$, $100\cdot10^{-6}$}, {1, 10, 30, 60}, NA, 1)	NA	[78]
NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NTA	NA	NTA	NTA	NTA	(3000, $70\cdot10^{-6}$, 200, NR, NR)	NA	[79]
$700\cdot10^{2}$	$4.26\cdot10^{-4}$	Center	1	$1.592\cdot10^{-4}$	Center	1	$1.43\cdot10^{-4}$	Center	1	[26, 65]	($\omega_b = 3.575\cdot10^{-3}$ s^{-1}, Un-cooled electrode)	$4.26\cdot10^{-4}$	37.4	33.57	([2700, 3000], $100\cdot10^{-6}$, {300, 400}, NA, 1.5)	T	[80]
$700\cdot10^{2}$	$4.06\cdot10^{-4}$	Center	1	$5.324\cdot10^{-5}$	{Left, Right}	2	0	NA	NA	[26, 46]	($\omega_b = 3.575\cdot10^{-3}$ s^{-1}, Cooled electrode)	$4.08\cdot10^{-4}$	26.1	0	([2700, 3000], $100\cdot10^{-6}$, {300, 400}, NA, 1.5)	T	[80]

Simulations of electric-field distribution				Simulations of temperature distribution													
$S_{E\text{-}IRE(th)}$				$S_{3\Delta T13}$			$S_{\Delta T13}$					Parameters for meta-analysis			Validation		
Average $E_{IRE(th)}$	Size	Position	Number	Size	Position	Number	$S_{\Delta T13}$	Position	Number	T_{init} and T_{max} range	Additional Details	$S_{E\text{-}IRE(th),\Sigma}$	$R_{3\Delta T13}$	$R_{\Delta T13}$	Experimental Pulse Parameters (V_P, t_P, N_P, τ_P, f_P)	Paramet ers attempted to validate	Ref
[V·m⁻¹]	[m²]			[m²]			[m²]			[°C]		[m²]	[%]	[%]	([V], [s], [-], [s], [Hz])		
$700 \cdot 10^2$	$2.04 \cdot 10^{-6}$	Top	1	0	NA	NA	0	NA	NA	NA	($\omega_b = 3.575 \cdot 10^{-3}$ s^{-1}, Cooled electrode)	$4.08 \cdot 10^{-4}$	26.1	0	([2700, 3000], $100 \cdot 10^{-6}$, {300, 400}, NA, 1.5)	Temperature increase	[8 0]