

Supplementary material Synthesis of individual studies characteristics and outcomes.

Gram-positive bacteria																
	Reference	Pathogen	Packaging	Plasma source	Treatment	LogR										
						0	1	2	3	4	5	6	7	8	9	
[22]	Maccaferri et al., 2023	<i>S. epidermidis</i>	PP	SDBD	indirect					■						
[23]	Heise et al., 2004	<i>B. subtilis</i>	PET	DBD - synthetic air DBD - Nitrogen DBD - Argon	direct + UV			■			■					
[24]	Schnabel et al., 2018	<i>L. innocua</i>	PET	Low-pressure	N/A									■	•	
[25]	Bauer et al., 2017	<i>S. aureus</i> <i>L. monocytogenes</i>	PAPE	SDBD	indirect									■	■	
[26]	Trompeter et al., 2002	<i>B. subtilis</i>	Glass	DBD	direct						■					
[27]	Muranyi et al., 2010	<i>B. atrophaeus</i>	PET Glass	DBD	direct + UV						■	•			■	
[28]	Puligundla et al., 2016	<i>S. aureus</i>	Glass	DBD	direct						■					
			PE							■						
			PP							■						
			Nylon								■					
			Paper								■					
[29]	Lee et al., 2017	<i>S. aureus</i>	Glass PE PP Nylon Paper	Corona Jet	direct									■	■	
[30]	Katsigiannis et al., 2022	<i>L. monocytogenes</i>	SS	DBD	direct									■	■	
[31]	Muranyi et al., 2007	<i>B. atrophaeus</i>	PET	DBD	direct + UV											
		<i>B. pumilus</i>														
		<i>C. botulinum</i>														
		<i>C. sporogenes</i>														
		<i>S. aureus</i>														
		<i>D. radiodurans</i>														
[32]	Montie et al., 2000	<i>S. aureus</i>	PP	Glow	direct											
		<i>D. radiodurans</i>	Glass													
		<i>B. subtilis</i>	Glass													
		<i>G. stearothermophilus</i>	Nitrocellulose													
		<i>B. pumilus</i>	Paper													
		<i>B. subtilis</i>	Paper													
[33]	Imaizumi et al., 2003	<i>B. subtilis</i>	Plastic	CAP	direct + H ₂ O ₂									■		
[34]	Edelblute et al., 2015	<i>S. epidermidis</i>	Linoleum vinyl Laminate	DBD	direct											
[35]	Edelblute et al., 2016	<i>S. aureus</i>	PP	DBD	direct											
[36]	Timmons et al., 2018	<i>L. monocytogenes</i>	Glass	SDBD	indirect											
[37]	Dasan et al., 2017	<i>S. epidermidis</i>	SS Silicone PET	Gliding arc	direct											
[38]	Schnabel et al., 2014	<i>S. aureus</i>	Glass	Plexc	indirect											
		<i>B. atrophaeus vegetative cells</i>														
		<i>B. atrophaeus spores</i>														
[39]	Tučeková et al., 2021	<i>P. aeruginosa</i> <i>S. aureus</i> <i>S. epidermidis</i>	PP	SDBD	indirect											
[40]	Pina-Perez et al., 2020	<i>B. subtilis</i>	Glass	SDBD	indirect									■		
[41]	Dobrynin et al., 2010	<i>B. cereus</i>	Plastic	DBD	direct										■	
[42]	Hähnel et al., 2010	<i>B. atrophaeus</i>	PE	SDBD	indirect									■		
[43]	Reece Roth et al., 2000	<i>S. aureus</i>	PP	Glow	indirect									■		
[44]	Kovalová et al., 2013	<i>Streptococcus</i> <i>Streptococcus</i> <i>B. cereus</i>	PP	Corona	direct direct + water spray direct											
[45]	Kamgang-Youbi et al., 2018	<i>S. epidermidis</i> <i>L. mesenteroides</i>	PE	Gliding arc	indirect											
[46]	Machala et al., 2009	<i>B. cereus</i>	Plastic Paper	Corona	direct											
[47]	Kuzminova et al., 2017	<i>B. subtilis</i>	PC on agar	DBD	direct											
[48]	Bugaev et al., 2000	<i>B. subtilis</i>	PP	Corona	direct											
[49]	Sipoldova, Machala, 2011	<i>B. cereus</i>	Plastic	Corona	direct											
[50]	Zheng et al., 2016	<i>S. aureus</i> <i>S. albus</i>	Glass Silicone	SDBD	indirect											
[51]	İbiş et al., 2016	<i>S. aureus</i>	SS	DBD	direct											
[52]	Kramer et al., 2022	<i>B. atrophaeus</i> <i>S. aureus</i>	PET Glass	DBD Jet	indirect											
[53]	Kim et al., 2014	<i>S. aureus</i>	PS	DBD	indirect											
[54]	Amano et al., 2007	<i>B. subtilis</i>	PET	DBD SDBD	direct indirect											
[55]	Bong et al., 2022	VRE	SS Fabric Glass Plastic Wood SS	SDBD	indirect											
		<i>A. baumannii</i>	Fabric Glass Plastic Wood SS													
		<i>C. difficile</i>	Fabric Glass Plastic Wood													
[56]	Cooper et al., 2009	<i>D. radiodurans</i> (I.C. = 6) <i>D. radiodurans</i> (I.C. = 4)	SS	DBD	direct											
[57]	Masaoka, 2007	<i>B. subtilis</i>	PET	DBD	direct + water vapour											
[58]	Klämpfl et al., 2012	<i>G. stearothermophilus</i>	SS PTFE PVC Glass	SDBD	indirect											
[59]	Kramer et al., 2020	<i>B. atrophaeus</i> <i>B. subtilis</i> <i>B. atrophaeus</i> <i>B. subtilis</i>	PET	DBD	PPA											
[74]	Schnabel et al., 2019	<i>L. monocytogenes</i> <i>B. atrophaeus</i>	PE	Low-pressure	PPA and PAW											
[60]	Deng et al., 2010	<i>B. subtilis</i>	PTFE	Jet	direct											
[61]	Mizuno, 2016	<i>B. subtilis</i>	Aluminum	DBD	direct											
[62]	Gadri et al., 2000	<i>P. aeruginosa</i>	PP	Glow	indirect											
		<i>S. aureus</i>	PP													
		<i>D. radiodurans</i>	Glass													
		<i>B. subtilis</i>	Glass													
		<i>B. stearothermophilus</i>	Nitrocellulose													
		<i>B. pumilus</i>	Paper													
		<i>R. solis</i>	Paper													
		<i>B. subtilis</i>														

[63]	Lee et al., 2011	<i>S. Typhimurium</i> <i>L. monocytogenes</i>	PS	Jet	direct	
[64]	Kamgang-Youbi et al., 2009	<i>S. epidermidis</i> <i>L. mesenteroides</i> <i>S. epidermidis</i>	SS PE	Gliding arc	PAW	
[65]	Noriega et al., 2011	<i>L. innocua</i>	PC	Jet	direct	
[66]	Yun et al., 2010	<i>L. monocytogenes</i>	PS Aluminum Paper	DBD	direct	
[67]	Govaert et al., 2018	<i>L. monocytogenes</i> <i>S. Typhimurium</i>	PS	DBD	direct	
[68]	Kvam et al., 2012	MRSA <i>P. aeruginosa</i>	PC	DBD	direct	
[69]	Cahill et al., 2014	MRSA VRE <i>A. baumannii</i> MRSA VRE <i>A. baumannii</i>	PP SS	Jet	direct	
[70]	Venezia et al., 2008	<i>B. atrophaeus</i> <i>G. stearothermophilus</i>	N/A	N/A	N/A	
[71]	Lis et al., 2018	<i>E. faecium</i> MRSA <i>A. baumannii</i>	SS	Jet	indirect	
[72]	Ma et al., 2008	<i>S. aureus</i>	Glass	DBD	direct	
[73]	Akan, Çabuk, 2014	<i>B. subtilis</i> <i>S. aureus</i>	Glass	Corona	indirect	

Gram-negative bacteria

	Reference	Pathogen	Packaging	Plasma source	Treatment	LogR
						0 1 2 3 4 5 6 7 8 9
[24]	Schnabel et al., 2018	<i>E. coli</i> <i>P. fluorescens</i> <i>P. marginalis</i> <i>P. carotovorum</i>	PET	Low-pressure	indirect	
[25]	Bauer et al., 2017	<i>E. coli</i>	PAPE	SDBD	indirect	
[28]	Puligundia et al., 2016	<i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i>	Glass PE PP Nylon Paper	DBD	direct	
[29]	Lee et al., 2017	<i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i> <i>E. coli</i> <i>S. typhimurium</i>	Glass PE PP Nylon Paper	Corona Jet	direct	
[30]	Katsigiannis et al., 2022	<i>S. typhimurium</i>	SS PE-TPU	DBD	direct	
[31]	Muranyi et al., 2007	<i>S. Mons</i> <i>E. coli</i>	PET	DBD	direct + UV	
[75]	Hu, Guo, 2012	<i>E. coli</i>	PET	DBD	direct	
[76]	Miao, Yun, 2011	<i>E. coli</i>	PET PVC PTFE	DBD	direct	
[32]	Montie et al., 2000	<i>E. coli</i> <i>E. coli</i> (I.C. = 3.3) <i>E. coli</i> (I.C. = 3.9) <i>P. aeruginosa</i>	PP Glass Glass PP	Glow	direct	
[33]	Imaizumi et al., 2003	<i>E. coli</i>	Plastic	CAP	direct + H ₂ O ₂	
[34]	Edelblute et al., 2015	<i>E. coli</i>	Linoleum vinyl Laminate	DBD	direct	
[36]	Timmons et al., 2018	<i>S. enterica</i> <i>E. coli</i>	Glass	SDBD	indirect	
[37]	Dasan et al., 2017	<i>E. coli</i>	SS Silicone PET	Gliding arc	direct	
[38]	Schnabel et al., 2014	<i>E. coli</i>	Glass	Plexc	indirect	
[77]	Tučeková et al., 2016	<i>E. coli</i>	PTFE	SDBD	indirect	
[43]	Reece Roth et al., 2000	<i>E. coli</i>	PP	Glow	indirect	
[78]	Salgado et al., 2021	<i>E. coli</i>	PP	SDBD	indirect	
[79]	Lu et al., 2018	<i>P. aeruginosa</i>	Glass	Jet	direct	
[80]	Liu, Chen, 2008	<i>E. coli</i>	PTFE	Low-pressure	indirect	
[45]	Kamgang-Youbi et al., 2018	<i>H. alvei</i>	Glass	Gliding arc	indirect	
[81]	Salamitou et al., 2009	<i>E. coli</i>	Glass	DBD	direct	
[90]	Kovalova et al., 2016	<i>E. coli</i>	PP	Corona	direct	
[48]	Bugaev et al., 2000	<i>E. coli</i>	Glass	Corona	direct	
[82]	Simon et al., 2012	<i>E. coli</i>	Glass	DBD	direct	
[83]	Vandervoort, Brelles-Mariño, 2014	<i>P. aeruginosa</i>	Glass	Jet	direct	
[50]	Zheng et al., 2016	<i>E. coli</i> <i>P. aeruginosa</i>	Glass Silicone	SDBD	indirect	
[84]	Zolotukhin et al., 2015	<i>E. coli</i>	Glass PP	Glow	direct	
[51]	İbiş et al., 2016	<i>E. coli</i>	PE PE	DBD	direct	
[74]	Schnabel et al., 2019	<i>P. carotovorum</i> <i>E. coli</i>	PE PE	CAP	PPA and PAW	
[61]	Mizuno, 2016	<i>E. coli</i>	PET	DBD	direct	
[85]	Yu et al., 2006	<i>E. coli</i>	PC on agar	DBD Jet	direct	
[62]	Gadri et al., 2000	<i>E. coli</i>	PP Glass	Glow	indirect	
[63]	Lee et al., 2011	<i>E. coli</i>	PS	Jet	direct	
[64]	Kamgang-Youbi et al., 2009	<i>H. alvei</i> <i>H. alvei</i>	SS PE	Glowing arc	PAW	
[69]	Cahill et al., 2014	<i>E. coli</i>	PP SS	Jet	direct	
[94]	Kordova et al., 2018	<i>S. epidermidis</i>	PP	Corona	indirect + H ₂ O ₂	
[92]	Pavlovich et al., 2012	<i>E. coli</i>	SS Rubber Silicone SS Rubber Silicone	SDBD DBD	indirect direct	

