

Priloga VII: Primeri uporabe hidrodinamske kavitacije za odstranjevanje različnih onesnažil v vodnih matrikah

Spojina	Metoda	Pogoji	Odstranitev [%]	Referenca
CLA, ibuprofen, naproksen, ketoprofen, karbamazepin, diklofenak	HC/H ₂ O ₂	C ₀ = 1 μmol/L T = 50 °C [H ₂ O ₂] = 3,4 g/L t = 15 min	48, 60, 83, 66, 72, 82	(35)
4-kloro 2-aminofenol	HC	C ₀ = 20 ppm V = 4 L pH = 6 T = 30 °C	21,89	(39)
	HC/UV	8 W 254 nm	79,30	
	HC/O ₃	400 mg/h	73,38	
	HC/UV/ O ₃		96,85	
bisfenol A	HC	C ₀ = 0.044 mM [PS] = 0.70 mM P = 5 bar T = 50 °C pH = 6 t = 120 min	80	(34)
diklofenak	HC	C ₀ = 20 ppm V = 5 L p = 3 bar pH = 4 T = 35 °C t = 120 min	26,85	(67)
	HC/UV	250 W	49,75	
	HC/UV/TiO ₂	250 W [TiO ₂] = 0.02 g/L	79,38	
	HC/ TiO ₂	[TiO ₂] = 0.02 g/L	30,37	
	HC/UV/TiO ₂ /H ₂ O ₂	250 W [TiO ₂] = 0.02 g/L [H ₂ O ₂] = 0.02 g/L	94,78	
	HC/TiO ₂ /H ₂ O ₂	[TiO ₂] = 0.02 g/L [H ₂ O ₂] = 0.02 g/L	33,01	
ibuprofen	HC	C ₀ = 10 μg/L T = 25 °C	65	(68)

		P = 4.5 bar t = 60 min pH = 9		
p-nitrofenol	HC	C ₀ = 5 g/L V = 4 L T = 30 °C P = 3 bar t = 90 min pH = 3,75 [H ₂ O ₂] = 5 g/L [FeSO ₄] = 1 g/L	63,2	(69)
karbamazepin	HC	C ₀ = 10 ppm T = 35 °C P = 4 bar t = 120 min pH = 4	38,7	(70)
	HC/UV	16W	52,9	
	HC/H ₂ O ₂	[H ₂ O ₂] = 50 mg/L	58,3	
	HC/O ₃	400 mg/h	91,3	
	HC/H ₂ O ₂ /O ₃	400 mg/h [H ₂ O ₂] = 50 mg/L	100	
metomil	HC	C ₀ = 25 ppm V = 5 L pH = 2.5 P = 5 bar t = 2 h	22,17	(71)
	HC/H ₂ O ₂	C ₀ = 25 ppm V = 5 L pH = 2.5 P = 5 bar t = 1 h [H ₂ O ₂] = 1:30	97,246	
	HC/Fenton	C ₀ = 25 ppm V = 5 L pH = 2.5 P = 5 bar t = 30 h [H ₂ O ₂] = 1:30	100	

		[FeSO ₄] : [H ₂ O ₂] = 1:20		
rodamin B	HC	C ₀ = 30 μmol/L V = 20 L P = 4 bar T = 25 °C t = 180 min	21,8	(38)