

Electronic supplementary information (ESI)

Degradation of a novel pesticide antiviral agent vanisulfane in aqueous solution: Kinetics, identification of photolysis products and pathway

Xingang Meng*, Niao Wang, Xiaofang Long, Deyu Hu*,

State Key Laboratory Breeding Base of Green Pesticide and Agricultural Bioengineering, Key Laboratory of Green Pesticide and Agricultural Bioengineering, Ministry of Education, Guizhou University, Guiyang 550025, P. R. China.

*Authors to whom correspondence should be addressed; e-mail: 15885007970@163.com (Xingang Meng); e-mail: gzu_dyhu@126.com (Deyu Hu); Tel.: (+86) 851 8362 0521; fax: (+86) 851 8362 2211

Table of Contents

Degradation kinetic parameters of vanisulfane in Cu ²⁺ aqueous solution	2
Degradation kinetic parameters of vanisulfane in FA aqueous solution.....	3

Table S1 Degradation kinetic parameters of vanisulfane at 10.0 mg/ L in Cu²⁺ aqueous solution at 25±1 °C

Concentration of Cu ²⁺ (g/L)	Temperature (°C)	Kinetic equation	K	Half-life (d or h)	R ²
0.01	25	C _t = 10.051e ^{-0.02t}	0.020	34.66 d	0.9900
0.1	25	C _t = 10.628e ^{-0.088t}	0.088	7.88 d	0.9942
1.0	25	C _t = 10.732e ^{-0.088t}	0.088	7.88 h	0.9931

Table S2 Degradation kinetic parameters of vanisulfane at 10.0 mg/ L in FA aqueous solution at 25±1 °C

Concentration of FA (g/L)	Temperature (°C)	Kinetic equation	K	Half-life (d)	R ²
0.01	25	$C_t = 9.6271e^{-0.015t}$	0.015	46.21	0.9933
0.1	25	$C_t = 10.251e^{-0.029t}$	0.029	23.90	0.9935
1.0	25	$C_t = 10.678e^{-0.218t}$	0.218	3.18	0.9912