

The Enzyme Antioxidant Defence System in Libyodrilus Violaceus in Response to Crude Oil Pollution in the Niger Delta Region of Nigeria

¹Department of Biochemistry, College of Natural and Applied Sciences, Igbinedion University, Okada, Nigeria

²Nigeria Agip Oil Company, PortHarcourt, Rivers State, Nigeria

³Department of Biological Sciences, College of Natural and Applied Sciences, Igbinedion University, Okada, Nigeria

⁴Department of Biochemistry, College of Natural and Applied Sciences, Igbinedion University, Okada, Nigeria.

0 0 0 0 0 0

n, þ þ., , 6 . 3 4 .. - , , þ.ı 3.4 at 2 b 22 **b :** (2 b , , , , , , , , , , , , , , 100), , b.b. þ., 100 1. h h /, 100 . 1 (.... þ , mar, b. but but ,. 1 ., ibs . . 23 sb, 2 b24.0. . b.b. s h

zha na bzh na zh na nash zh napi ni 1.5 1.14 eene e bis si bie bis be bis $Units/mg \text{ wet tissue } = \frac{\%Inhibition}{50 \times y}$ اله و و م 🕹 اله ۲۰ و 🗧 المله المير ه ۲۰ 🗸 اله ا

Estimation of catalase (CAT) activity

Principle: bbbs . 1 s ... anb b ba b s ... b.sb.s . b, \mathbf{b} b, \mathbf{b} , \mathbf{b} , \mathbf{b} , \mathbf{b} , \mathbf{b} , \mathbf{b} , \mathbf{c} , \mathbf{b} , \mathbf{c} , \mathbf{b} , \mathbf{c} , \mathbf{c} , \mathbf{c} , \mathbf{b} , \mathbf{c} bes 2 bes 2

$$H_2O_2 + H_2O_2 \xrightarrow{Catalase} H_2O + O_2$$

• , • • nh ngp: 1 , bia, Čk, s≤s kuy jkuy s

, ibs , i ibbit (0.) 4 b, 2 ml/b, ml2be, որ հերջությունը։ 2 2 b 1 / b . h. - 01 2 ۹ þ. s **.**, 1 1 b. • • . . . k bag 20 - bat /0 5 ted, • c ded te te de • bishings / b. b. • , • 2/ • · b b / b / b / b / 0.011 b b b b b b · 0.01 B b b b c · , b · .0**þ** 1 / þ. • • • / • • . • • / þs •.

5. 22

Assay of glutathione peroxidase (GPx)

Principle: h h h b b 20. bs at -, k b. b. 20. . b • الله و

Reagent used

Reagent I: 100 1 , b., be , e, be , be , e, be , 🖾 0 b: 20. •

· 20. /20 , b.t.

Calculations

0 0 0 0 0

Assay of glutathione reductase (GRx)

0.0

Calculation

$$\frac{Activity \ GPx}{O.D_{std} - O.D_{Blank}} \times conc. of \ Standard$$

Statistical analysis

bb, e, e, /et ...e, e, s ...b. b.b , þt ". •**b** · · · **b b** • **p** () / **b** · **b** · 2° 6 3 6 - • • <u>. . .</u> . /• . الم من مع ما ما من من ما ما 🖉 🕹 🕹 🕹 🕹 الم

Results

(Lib, od, ib., iolacer.) 1.6 2 · • \$2,2 1.1., b 3 3 1 1 1 1 þ. 1 s at s/b, inthe , b' a / a a a a a ر میلد د در <mark>ا</mark> a, \$1.5/. • \$ /• .] • \$/ \$. • **3** 0.1% . -, k, , ,, b, / k, , , • a di a di د و و د د و و هده و المراجع (مهم و د روم (مهم و د د د و روم (مهم و د روم (مهم و د روم و روم و روم و روم و روم و

¢¢، د دو⁴۰، د بی ¢¢، د بی اور از از از از از او و • ¢¢، د دو⁴۰، د بی د

0 0 0 0 0

b.J 21 ; - 24 ; 1.140 0.1% b 3 20 _0.0) ۰ **۱** 141 ,0. % 0.1%,0.1% /_... **,** • 1 / b. a b b 3/ 1 23 0. % 2.0 ; 24 b. . . . 0.0 1.1.20 , þ1 ; ۰.۴ 24 -1 b. 0.1,0.2 b. 0. % 0.1,0.2 b 0. % ; yt þe 1.1.30 b,30 3. • • 2 • • • 0. % þ, 3 1 2. 10 24 . . 11 11 20 1 . 5 b. . . / b. . . . /. • . ila , /• 6 3 30 0. % I. , bi ۰. ي**• ب**ه , 2.4 • • 1 🖉 . . ,

0 0 0 0 0 0

الله مار به الله من في الله مار في الله الله ما الله الله ما الله ما الله ما الله ما الله ما الله ما