Supplementary Material for

Complex toxicological interaction between ionic liquid and pesticide to *Vibrio qinghaiensis* sp.-Q67

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Total Tables: 2
Total figures: 5

Supplementary Material includes the following: Concentration-response models, statistics (\(R^2\) and RMSE), effective concentrations (EC\(_{10}\), EC\(_{50}\) and EC\(_{70}\)) and characteristic parameters (ZEP, EC\(_{\text{min}}\) and E\(_{\text{min}}\) for J-shape CRCs) of ionic liquids at seven exposure times (Table S1); The concentration-response models (\(\alpha\) and \(\beta\)), statistics (\(R^2\) and RMSE) and effective concentrations (EC\(_{10}\), EC\(_{50}\) and EC\(_{70}\)) of two pesticides at seven exposure times (Table S2); Characteristic parameters (EC\(_{10}\), EC\(_{50}\) and EC\(_{70}\) for all CRCs and ZEP, EC\(_{\text{min}}\) and E\(_{\text{min}}\) for J-shape CRCs) of 20 mixture rays at seven exposure times (Figure S1). Concentration-response curves of 5 mixture rays in [emim]Br-MET systems at seven exposure times (Figure S2); Concentration-response curves of 5 mixture rays in [emim]Cl-MET systems at seven exposure times (Figure S3); Concentration-response curves of 5 mixture rays in [emim]Br-
SIM systems at seven exposure times (Figure S4); Concentration-response curves of 5 mixture rays in [emim]Cl-SIM systems at seven exposure times (Figure S5).
Table S1
Concentration-response models, statistics ($R^2$ and RMSE), effective concentrations ($EC_{10}$, $EC_{50}$ and $EC_{70}$) and characteristic parameters (ZEP, $EC_{\text{min}}$ and $E_{\text{min}}$ for J-shape CRCs) of ionic liquids at seven exposure times

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<th>Chemical</th>
<th>Time (h)</th>
<th>Function</th>
<th>$R^2$</th>
<th>RMSE</th>
<th>$EC_{10}$ (mol/L)</th>
<th>$EC_{50}$ (mol/L)</th>
<th>$EC_{70}$ (mol/L)</th>
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a: $R^2$ refers to coefficient of determination.
b: RMSE refers to root mean square error.
c: ZEP refers to zero effect point (concentration).
d: $E_{\text{min}}$ refers to the maximum stimulatory effect or the minimum inhibition.
e: $EC_{\text{min}}$ refers to the concentration with maximum stimulatory effect.
Table S2
The concentration-response models (α and β), statistics (R^2 and RMSE) and effective concentrations (EC_{10}, EC_{50} and EC_{70}) of two pesticides at seven exposure times.

<table>
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<th>Chemical</th>
<th>Time (h)</th>
<th>Function</th>
<th>α</th>
<th>β</th>
<th>R^2</th>
<th>RMSE</th>
<th>EC_{10} (mol/L)</th>
<th>EC_{50} (mol/L)</th>
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α: location parameter
β: shape parameter
Figure S1  Characteristic parameters (EC_{10}, EC_{50} and EC_{70} for all CRCs and ZEP, EC_{min} and F_{min} for J-shape CRCs) of 20 mixture rays at seven exposure times (●: R1; ○: R2; □: R3; ▣: R4; ✧: R5).
Figure S2  Concentration-response curves of five mixture rays in [emim]Br-MET systems at seven exposure times (○: experimental values; —: CRCs fitted; —: CRCs predicted by CA; —: 95% CIs)
Figure S3  Concentration-response curves of five mixture rays in [emim]Cl-MET systems at seven exposure times (○: experimental values; —: CRCs fitted; ---: CRCs predicted by CA; --: 95% CIs)
Figure S4  Concentration-response curves of five mixture rays in [emim]Br-SIM systems at seven exposure times (○: experimental values; —: CRCs fitted; —: CRCs predicted by CA; --: 95% CIs)
Figure S5  Concentration-response curves of five mixture rays in [emim]Cl-SIM systems at seven exposure times (○: experimental values; —: CRCs fitted; —: CRCs predicted by CA; --: 95% CIs)