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*Elsholtzia splendens*

P T P G C J  
LSP AQY V

TPU LCP

## Effects of soil microbe inoculation on the growth and photosynthetic physiology of *Elsholtzia splendens* under copper stress

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### Abstract:

*Elsholtzia splendens*

*E. splendens*

*E. splendens*

*E. splendens*

*E. splendens*

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*E. splendens*

*E. splendens*

*E. splendens*

*E. splendens*

*T*  
*C E. splendens*  
*LSP*

*P*

*P*

*P*

*J*

*AQY*

*V*

*LCP*

*TPU E. splendens*

*P*

*LSP AQY V*

*J*

*TPU*

*LCP*

*E. splendens*

**Key Words:** *Elsholtzia splendens*

*IAA*

*ACC*

*Elsholtzia splendens*

*Elsholtzia*

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**1.1**

**Table 1 The basic physical and chemical characteristics of soils**

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**1.2**

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1.3

1.3.1

1.3.2

1.3.3

1.3.4

$C \mu$

$T$

$P \mu$

$G$

$\mu$

$\mu$

$\mu$

$\mu$

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$\mu$

1.4

$$P I = \alpha \frac{-\beta I}{+\gamma I} I - I_c$$

$P(I)$   $I$   $\mu$   $I$

$\mu$   $P$   $\mu$   $AQY$   $\mu$   $\mu$   $P$   $PAR$

$LCP$   $\mu$   $R$   $\mu$   $LSP$   $\mu$

$\mu$   $J$   $\mu$   $TPU$   $\mu$   $V$

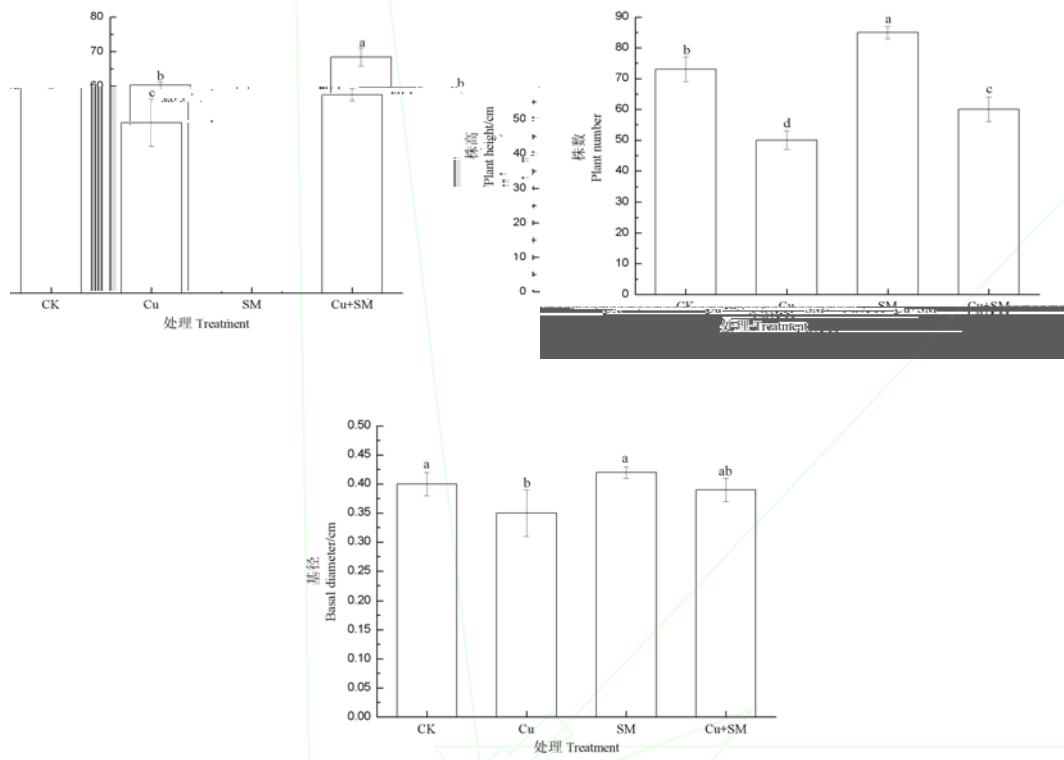


Fig.1 Effects of soil microbe inoculation on the growth of *E. splendens* under copper stress

P

2.2

**Table 2** Effects of soil microbe inoculation on the biomass of *E. splendens* under copper stress

*F F*

*P P P*

**2.3**

**Table 3** Effects of soil microbe inoculation on heavy metal contents of *E. splendens* under copper stress

$\mu$   $\mu$   $\mu$   $\mu$   $\mu$

*F F*

*P P P*

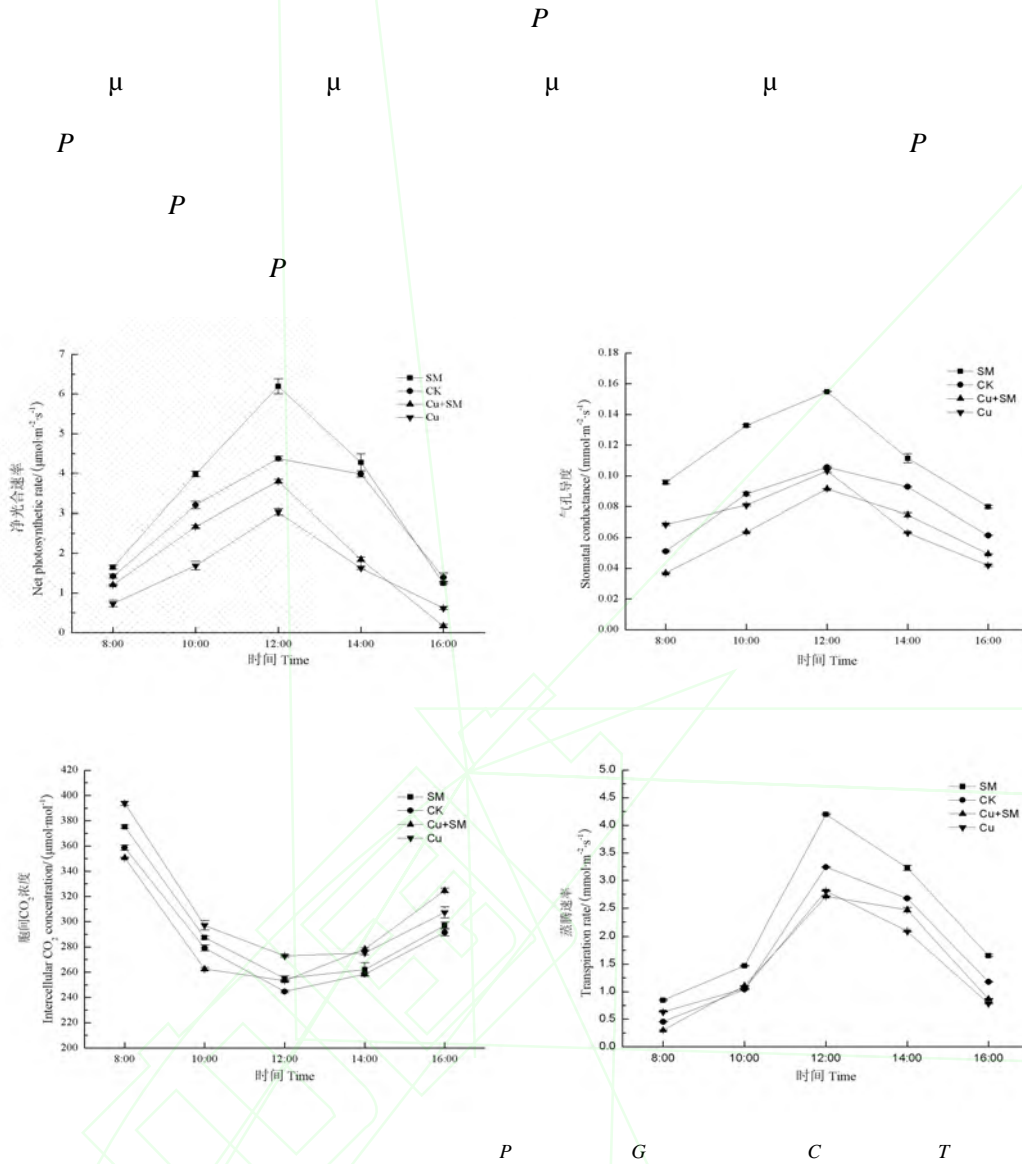


Fig.2 Effects of soil microbe inoculation on the diurnal variations of net photosynthetic rate, stomatal conductance, intercellular  $\text{CO}_2$  concentration and transpiration rate in the leaves of *E. splendens* under copper stress



Table 4 Effects of soil microbe inoculation on the daily mean value of photosynthetic parameters of *E. splendens* under copper stress

	<i>P</i>	<i>G</i>	<i>C</i>	<i>T</i>
$\mu$				

*F F*

2.5

*P*

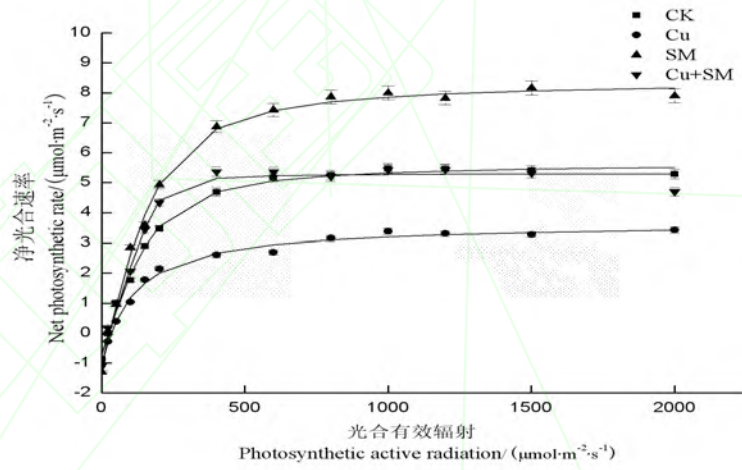


Fig.3 Effects of soil microbe inoculation on the light response curves of *E. splendens* under copper stress

*P*

*P*

*LSP*

*AQY*

*R*

*LCP*

*P*

*LSP AQY R*

*LCP*

*P*

*AQY*

*LCP*

P LSP

Table 5 Effects of soil microbe inoculation on the light response parameters of *E. splendens* under copper stress

	LSP	LCP	AQY	R
P				
μ	μ	μ	μ μ	μ
μ				

F F

P P P

2.6

P

μ

P

P

μ

P

P

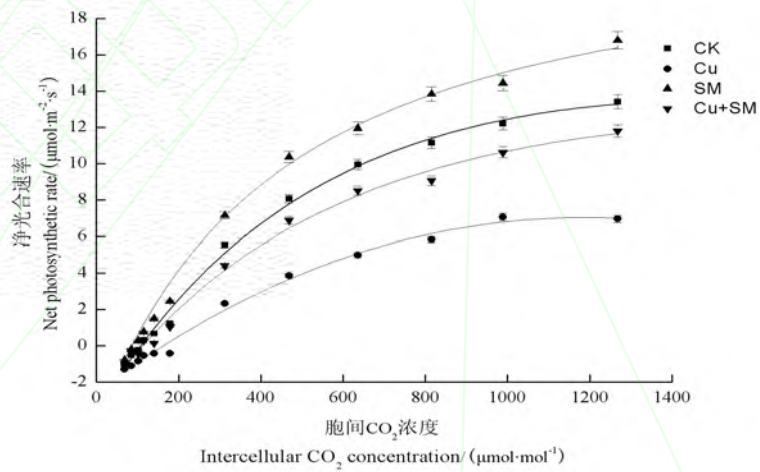


Fig.4 Effects of soil microbe inoculation on the net photosynthetic rate-intercellular CO<sub>2</sub> concentration curves of *E. splendens* under copper stress

P

V

J

TPU

V

J

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*TPU*

*V J TPU*

**Table 6** Effects of soil microbe inoculation on the CO<sub>2</sub> response parameters of *E. splendens* under copper stress

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	<i>V</i>		<i>J</i>		<i>TPU</i>
	$\mu$			$\mu$	$\mu$

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*F F*

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*P P P*

*C*

*P G*

*P T G C*

*Limoniastrum monopetalum*

*C*

*Zea mays P T G*



*LSP*

*LCP*

*LSP LCP*

*LSP*

$\mu$

*P*

*LSP*

*LCP*

*Beta vulgaris*

*Acinetobacter johnsonii*

*LSP*

*AQY*

*LCP*

*LSP*

*LCP*

*P*

*AQY*

*AQY*

*AQY*

*P*

*R*

*P*

*AQY*

*LCP*

*V*

*J*

*Sorghum S. sudanes*

*Medicago sativa*

*V*

*J*

*TPU*

*V*

*J*

*TPU*

*V*

*J*

*TPU*

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**References:**

*cylindrica*

*Imperata*

*Scenedesmus quadricauda*

*Prunuscerasifera*

*in vitro*

*Pseudomonas putida*

*Elsholtzia splendens*    *Zea mays*

*Elsholtzia haichowensis*

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*Elsholtzia*

*haichowensis*

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